

UNIVERSITY OF THE DISTRICT OF COLUMBIA

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## University Catalog 2012-2013



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*As the only urban land-grant institution in the United States, the only public university in the District of Columbia, and a proud Historically Black College, the University of the District of Columbia ([www.udc.edu](http://www.udc.edu)) supports a broad mission of education, research and community service across all member colleges and schools, which include the Community College, College of Agriculture, Urban Sustainability and Environmental Sciences, the College of Arts and Sciences, School of Business and Public Administration, School of Engineering and Applied Sciences, and the David A. Clarke School of Law.*

*The University of the District of Columbia is an Equal Opportunity/Affirmative Action institution. Minorities, women, veterans and persons with disabilities are encouraged to apply. For a full version of the University's EO Policy Statement, please visit:*  
[http://www.udc.edu/equal\\_opportunity](http://www.udc.edu/equal_opportunity).

*The University of the District of Columbia is accredited by the Middle States Commission on Higher Education - 3624 Market Street - Philadelphia, PA 19104 - (267) 284-5000*

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## **Board of Trustees**

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## **Executive Officers**

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Dr. Rachel Petty, Interim Chief Executive Officer  
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Aimee Occhetti, JD, Vice President for Government Relations  
Craig W. Parker, JD, General Counsel  
Patricia Thomas, Athletic Director

## **Deans**

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Dr. Sabine O'Hara, PhD, Dean, College of Agriculture, Urban Sustainability and Environmental Sciences,  
Dr. April Massey, PhD, Acting Dean, College of Arts and Science,  
Dr. Richard f. Bebee, PhD, Dean, School of Business and Public Administration,  
Dr. Davidas Shetty, PhD, Dean, School of Engineering and Applied Science ,  
Dr. Jacqueline S. Jackson, PhD, Dean, Academic Affairs UDC- Community College,  
Katherine S. Broderick, J.D., Dean, David A. Clarke School of Law  
Albert J. Casciero, M.A., Dean, Learning Resources Division  
Kim R. Ford, M.A., Acting Dean, Workforce Development and Lifelong Learning UDC-Community College

## University Academic Calendar

The Academic Calendar can be accessed on line at: [http://www.udc.edu/registrar/academic\\_calendars](http://www.udc.edu/registrar/academic_calendars)

## University Directory

The directory can be accessed on line at: <http://directory.udc.edu/>

It provides contact information for University offices faculty, and staff members.

## Academic Administration and Location

### College of Agriculture Environmental Science and Urban Sustainability

#### Dr. Sabine O' Hara, Dean

202.274.7011, Building 44, Room 109

Professor Elgloria Harri son, Assistant to the Dean for Academic Programs

202. 274.6366, Building 44, Room 200-24

#### Architecture and Community Planning

Professor Ralph Belton, Program Director & Chair

202.274.5057, Building 32, Room 104

Bachelors of Science in Architecture, Master of Architecture

#### Nutrition and Dietetics

Dr. Prema Ganganna, Program Director

202.274.5516, Building 44, Room 200-02

Bachelor of Science in Nutrition

Masters of Science in Nutrition

#### Nursing

Dr. Pier Broadnax, Program Director,

202.274.5916, Building 44, Room 104A

Bachelor of Science in Nursing

#### Health Education

Dr. John Slack, Program Director,

202.274.5324, Building 47, Room A31

Bachelor of Science in Health Education

#### Environmental Science and Urban Sustainability

Dr. Sabine O'Hara, Acting Program Director

202.274.7011, Building 44, Room 109

Bachelor of Science in Environmental Science with concentration in:  
Environmental Science

Urban Sustainability

Water Resource Management

#### Professional Science Master's Degree (PSM)

Dr. Tolessa Dekssa, Program Director

202.274.5273, Building 42, Room 215C

Professional Science Masters

### College of Arts and Sciences

#### Dr. April Massey, Acting Dean

Wilma Thompson, Office Manager

202.274.5194, Building 41, Suite 405-01

#### Department of Biology, Chemistry, & Physics

Dr. Deepak Kumar, Chairperson

202.274.7401, Bldg. 44, Room 103

Programs: Biology, Cancer Biology, Chemistry

Degrees: Biology (BS), Cancer Biology (MS), Chemistry (BS)

#### Department of Criminal Justice, Sociology, & Social Work

Dr. Sylvia Hill, Chairperson

202.274.5007, Bldg. 41, Room 413-06

Programs: Criminal Justice, Sociology, Social Work

Degrees: Criminal Justice (BA), Sociology (BA), Social Work (BSW)

#### Department of Communications

Professor Maxine LeGall, Chairperson

202.274.7408, Bldg. 42, Room B14

Programs: Journalism, Mass Media, Oral Communication

Degrees: Mass Media (BS), Journalism (BS)

#### Department of Education

Dr. Lena Walton, Chairperson

202.274.7404, Bldg. 38, Room 109

Degrees: Special Education (BA), Elementary Education (BA), Early Childhood Education (BA)

#### Department of English, World Languages & Cultures

Dr. Chester W. Wright, Chairperson

202.274.5137, Bldg. 41, Room 400-06

Programs: English, Spanish, French, Portuguese, Chinese, Arabic

Degrees: English (BA)

#### Department of Mathematics & Statistics

Dr. Vernise Steadman, Chairperson

202.274.5153, Bldg. 32, Room B01-01

Programs: Mathematics, Applied Statistics

Degrees: Mathematics (BS), Applied Statistics (MS)

#### Center for Urban Education

Dr. Mary Dilworth, Director

202.274.6166, Bldg. 38, Room 105

#### Department of Political Science, History, & Global Studies

Dr. Shiela Harmon Martin, Chairperson

202.274.7403, Bldg. 41, Room 413-07

Programs: Political Science, History, Philosophy, Geography

Degrees: Political Science (BS), History (BS)

#### Department of Psychology, Counseling & Human Development

Dr. Benson Cooke, Chairperson

202.274.7406, Bldg. 44, Room 200-34

Programs: Psychology, Counseling, Rehabilitation Counseling, Human Development

Degrees: Psychology (BS), Counseling (MS), Human Development

#### Department of Visual & Performing Arts

Dr. Judith Korey, Acting Chairperson

202.274.7402, Bldg. 42, Room B14

Programs: Studio Art, Music, Theatre, Graphic Design

Degrees: Graphic Communications (BS), Theatre Arts (BA), Graphic Design (BFA), Music (BM)

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**School of Business and Public Administration**

**Dr. Richard F. Bebee, Dean**  
202.274.7000,

**Department of Accounting, Finance & Economics**

Dr. Tarsaim Goyal, Chairperson  
202.274.7002,

**Department of Management, Marketing, and Management Information Systems**

Dr. Hany Makhoulf, Chairperson  
202.274.7001,

**Department of Public Administration**

202.274.6510,

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**School of Engineering and Applied Sciences**

**Dr. Devdas Shetty, Dean**

202.274.5220, Building 42, Room 212

**Department of Civil & Mechanical Engineering**

Dr. Samuel Lakeou, (Acting) Assistant Dean & Chairperson  
202.274.5039, Building 42, Room 213

**Department of Computer Science & Information Technology**

Dr. Byunggu Yu, Chairperson  
202.274.6289, Building 42, Room 112

**Department of Electrical & Computer Engineering**

Dr. Samuel Lakeou, (Acting) Assistant Dean & Chairperson  
202.274.5834, Building 42, Room 109

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**Community College**

**Dr. Calvin Woodland, Interim Chief Executive Officer**  
202.274.7177, 801 N. Capitol St. NE, Suite 514

**Dr. Jacqueline S. Jackson, Dean of Academic Affairs**  
202.274.5800, 801 N. Capitol St. NE, Suite 321

**Dr. H. Pearl Peters, Dean of Student Achievement**  
202.274.5800, 801 N. Capitol St. NE, Suite 225

**Professor Marilyn Hamilton, Special Assistant to the Dean of Academic Affairs,**  
202.274.5789, 801 N. Capitol St. NE, Suite 321

**Workforce Development and Lifelong Learning**  
**Kim Ford, Acting Dean**  
202.274.7181, 801 N. Capitol St. NE, Suite 329

**Professor Laurence Covington, Faculty Program Coordinator for English, World Languages, ESL, and Public Speaking,** 202.274.5119,  
801 N. Capitol St. NE, Room 409

**Dr. Brandon James Shaw, Faculty Program Coordinator for Life and Physical Sciences**  
202.274.5629, 801 N. Capitol St. NE

**Faculty Program Coordinator for Math and Engineering**  
**Prof. John Griffin,**  
202.274.5800, 801 N. Capitol St. NE, Room 407

**Faculty Program Coordinator for Business and Social Sciences**  
**Professor David Watts,**  
202.274.6238, 801 N. Capitol St. NE, Room 617

**Faculty Program Coordinator and Director of Nursing for AAS Nursing Program**  
**Prof. Susie Cato,**  
202.274.5914, 801 N. Capitol St., NE, Room 812

**Faculty Coordinator, Program Director AAS Respiratory Therapy Program**  
**Professor Donald Steinert,**  
801 North Capitol Street, NE, Room 904

**Program Director AAS Mortuary Science Program**  
**Dr. Vincent Hill, Faculty Coordinator,**  
202.274.5858, Building 44, Room 200-28

**Professor Steve Madkins, Community College Faculty Program Liaison for Graphic Design and Graphic Communication Technology**  
202.274.7368, Building 42, Room

## **General Information 274.5000**

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### **Admissions**

Admissions—Undergrad (202)274 -6155

Admissions- Community College (202)274 -6155

Admissions—Graduate (202)274 -6155

Admissions—Law School (202)274 -7341

**Alumni Affairs** (202)274 -5117

**College of Agriculture Environmental Science and** (202)274 -7115

### **Urban Sustainability Division of Land Grant Programs**

Architectural Research Institute (202)274 -7115

Center for 4-H and Youth Development (202)274 -7115

Center for Nutrition, Diet and Health (202)274 -7115

Institute of Gerontology (202)274 -6593

Center for Sustainable Development (202)274 -7115

Water Resource Research Institute (202)274 -7115

Center for Urban Agriculture and Gardening Education (202)274 -7115

### **Academic Affairs Student Support**

Academic Advising UDC-CC Student Success Center (202)274 -5800

New Student Orientation (UDC-Community College) (202)274 -6988

Academic Advising Center (Flagship) (202)274-6899

New Student Orientation (Flagship) (202)274 -5900

Office of Graduate Studies (202)274-7075

Registrar (202)274 -6200

Library (202)274 -6370

Blackboard (202)274 -6628

**Student Affairs** (202)274-5210

**Student Life & Services** (202)274 -5900

Career Services (202)274 -6413

Cashier (202)274 -5112

Counseling Services (202)274 -6000

Financial Aid (202)274 -5060

Graduate Student Government (202)274 -6121

Health Insurance (202)274 -5350

Health Services (202)274 -5030

Student Employment (202)274- 6092

Trilogy Student Newspaper (202)274-5574

Undergrad Student Government (202)274 -5190

Veterans Affairs (202)274-6099

### **Other Campus Services**

Bookstore (202)274 -5110

Cable Television (202)274 -5300

Campus Police (202)274 -5050

Child Development Center (202)274 -5213

Computer Center (202)274 -5500

Lost & Found (202)274 -5050

Parking (202)274 -5159

Special Events (202)274 -5824

Speech & Hearing Clinic (202)274 -6161

Student Accounts (202)274 -5168

## Disclosures

The UDC 2012-2013 University Catalog currently is under review. The following resource list and directory references various policies, academic programs, degree requirements, course offerings, and related matters intended to be in effect at the University of the District of Columbia during the 2012-2013 academic year; however, any matter described in this catalog is subject to change. The course offerings, requirements and policies of the University of the District of Columbia are under continual examination and revision. Thus, the information contained in this catalog is not a contract. Instead, the catalog presents the offerings, requirements and policies in effect at the time of publication and in no way guarantees that the offerings, requirements and policies will not change. As a result, statements may not be regarded as binding obligations on the institution, or as an irrevocable commitment from the University to the reader. While the current UDC 2012-2013 University Catalog is under review, this current resource list and directory will equip the reader with the necessary information to make informed decisions and/or contact appropriate university personnel and staff.

This Undergraduate and Graduate Catalog has been prepared for the benefit of students, faculty, and administrators of the University, and others wishing to know more about the University's programs, services, and activities. This catalog is the primary reference for information about the University's curriculum, academic policies and procedures, and courses. Updated and supplemental information can be found in the following publications and information environments:

The Student Handbook: available online and from the Office of Student Affairs, published annually. The University of the District of Columbia web site, [www.udc.edu](http://www.udc.edu).

The University of the District of Columbia Intranet [my.UDC.edu](http://my.UDC.edu) for current students, administrators, faculty and staff.

These sources will be updated regularly with a variety of information about the University's programs, particularly upcoming activities and events, and links to departments, programs, students, and faculty. The information in this Catalog is accurate as of the date of publication, and the authors know of no significant changes to be made by the University in the near future. The University, however, reserves the right to make changes at any time, with or without prior notice, including, but not limited to, changes in rates and fees, deadlines, program offerings, course offerings, and course and program descriptions and requirements.

### Accreditation

The University of the District of Columbia is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104. (267.284.5000) The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the US Secretary of Education and the Council for Higher Education Accreditation.

## University Compliance

### Equal Opportunity Statement

The University of the District of Columbia is an Equal Opportunity Affirmative Action institution. The University prohibits discrimination or harassment against any person on the basis of the actual or perceived actual race, color, religion, national origin, sex, age, disability, sexual orientation, gender identity or expression, family responsibilities, matriculation, political affiliation, marital status, personal appearance, genetic information, familial status, source of income, status as a victim of an intrafamily offense, place of residence or business, or status as a covered veteran, as provided for and to the extent required by District and Federal statutes and regulations. This policy covers all programs, services policies, and procedures of the University, including admission to educational programs and employment. The University emphasizes the recruitment of minorities, women, disabled individuals, disabled veterans, Vietnam era veterans, and other eligible veterans.

In accordance with our Discrimination and Harassment Policy, the University will strive to provide an educational and working environment for all faculty, staff and students that is free from all forms of discrimination and harassment, including sexual harassment. We are committed to providing an environment that treasures diversity and emphasizes the dignity and worth of every individual, an environment in which every individual is treated with respect. The University will examine impartially all complaints of sexual harassment and attempt to resolve them as promptly as possible.

### The American with Disability Act (ADA)

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, no otherwise qualified student with a disability shall, solely because of her/his disability, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity of the University, including facilities and employment.

### Filing a Complaint

Persons who believe they have been discriminated against (including sexual harassment) may file a complaint by contacting the Equal Opportunity Officer/Title IX Coordinator/ADA Coordinator.

Yasmin J. Mitchell, SPHR

Equal Opportunity Officer

202.274.5442 [ymitchell@udc.edu](mailto:ymitchell@udc.edu)

### Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. Education records are directly related to the student and are maintained by the University. Student educational records are confidential and will only be shared by University officials with other University faculty or staff or with lending agencies that have a legitimate interest to know certain information. FERPA prevents the release of information about a student, other than directory information, without the student's consent.

Under FERPA, students are given certain rights regarding education records:

The right to inspect and review education records pertaining to the student kept by the University; The right to request the amendment of education records the student believes to be inaccurate, misleading or otherwise in violation of his or her privacy rights; The right to limit disclosure of education records; The right to file with the US Department of Education a complaint concerning alleged failures by the institution to comply with the requirements of FERPA and the regulations. The complaint should be in writing and contain specific allegations of fact. The complaint should be sent to: Family Policy Compliance Office US Department of Education 400 Maryland Ave. SW Washington, DC 20202-5920

The following documents are located in the University's Office of the Registrar:

1. Information regarding the Family Educational Rights and Privacy Act of 1974, as amended
2. Student Request Form to Review Education Records
3. Student Request Form to Amend or Remove Education Records
4. Student Request Form to Limit Disclosure of Directory Information
5. Student Consent Form for Access to Education Records
6. Third-party Request for Student Information

### Directory Information

Directory information is information contained in an education record of a student that generally would not be considered harmful or an invasion of privacy if disclosed. It includes, but is not limited to: the student's name; student's address; telephone listing; electronic mail address; photograph; date and place of birth; major field of study; dates of attendance; classification; enrollment status (undergraduate or graduate, full-time or part-time); participation in officially recognized activities and sports; weight and height of members of athletic teams; degrees, honors, and/or awards received; and previous education agency or institution attended.

Information that can never be identified as directory information are a student's Social Security number (SNN); student identification number (SID); race and ethnicity; gender; religious preference; country of citizenship; grades and grade point average; class schedule; disciplinary actions; and biometric record (for example, fingerprints).

### Disclosure without Consent

Please note that the University may be permitted or required to release educational records without a student's consent under the following conditions: school officials with legitimate educational interest; other schools to which a student is transferring; specified officials for audit or evaluation purposes; appropriate parties in connection with financial aid to a student; to local officials or authorities pursuant to specific law regarding the juvenile justice system; organization conducting certain studies for or on behalf of the school; accrediting organizations; to comply with a judicial order or lawfully issued subpoena; appropriate officials in cases of health and safety emergencies; to a victim of an alleged perpetrator of a crime of violence or a non forcible sex offense; to a parent if the student has violated any law, rule or policy governing



the use or possession of alcohol or a controlled substance; or the disclosure concerns sex offenders required to register under federal law. (34 CFR § 99.31) Disclosure to School Officials with Legitimate Educational Interest

The University discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including University law enforcement personnel and University health staff); a person or company with whom the University has contracted as its agent to provide a service instead of or in addition to using University employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University.

## Notice to all Students

### Drug & Alcohol Abuse Policy

The unlawful possession, use, or distribution of illicit drugs and alcohol by students on University property or as part of any University activity is prohibited. Federal and District of Columbia laws prohibit the unlawful use, manufacture, possession, control, sale and dispensation of any illegal narcotic, dangerous drug, or alcohol.

The health risks associated with the use of illicit drugs and the abuse of alcohol include physical and mental impairment, emotional and psychological deterioration, fine and gross motor degeneration, and death. Students who unlawfully possess, use, or distribute illicit drugs or alcohol shall be sanctioned. Sanctions may include referral for criminal prosecution, expulsion, suspension, reprimand, or requiring the student to complete an appropriate rehabilitation program.

The University of the District of Columbia provides confidential counseling and referral services to students with problems related to drug use and alcohol abuse. The University also provides information about substance abuse and treatment programs available to UDC students.

Students who desire information regarding substance abuse or treatment programs should contact the University Health Services at 202.274.5030.

### Vaccinations/Immunizations

District of Columbia Immunization Law 3-20 requires any student under the age of 27, who is enrolled in a primary, secondary or post secondary school of higher education (college or university), to submit proof of immunization as follows: Two (2) doses of measles, mumps and rubella vaccines (commonly known as MMR), given at least 30 days apart, or copies of blood tests showing immunity to measles, mumps and rubella. One booster for tetanus/diphtheria (Td) within the last 10 years. Three doses of hepatitis B vaccine. The second dose should be given one month after the first dose, and the third dose should be five months after the second. A positive blood test for hepatitis B is also acceptable. Two varicella (chicken pox) vaccines if the first dose was given after age 12 or a positive blood test for varicella. A recent PPD skin test for tuberculosis is encouraged. Students under the age of 18 must also show proof of polio immunization.

For further information, call (office name?) 202.274.5030 between 9:00 AM and 4:00 PM, Monday through Friday.

### Text Book Information

In accordance with the Higher Education Opportunity Act, 20 U.S.C. §1015b, textbook information for University courses is available on the University's website at [www.udc.edu/booklink](http://www.udc.edu/booklink).

### UDC E-mail

All students must activate their e-mail and My.Udc accounts. All matriculated students have email accounts established when they register for one or more classes at either the (University's flagship campus?) or Community College. This email account will be used by faculty to contact students enrolled in their classes and for college staff to inform students of important announcements. Student

email accounts are Web-based and can be accessed from any computer with an Internet connection. Student will use their e-mail accounts to activate the [My.UDC.edu](http://My.UDC.edu) (consistency needed) account portal that will provide access to key services: registration, student account information, financial aid, email, grades, and official university communications. Once issued, email accounts must be activated by the student. For detailed instructions on how to retrieve and activate student email and access the account, please visit [My.Udc.edu](http://My.Udc.edu).

Students who need assistance should visit the Help Desk in Building 41, Room 316 or send email to [support@udc.edu](mailto:support@udc.edu).

### Police and Public Safety

Reporting crime, suspicious or unusual activity, medical emergencies, fire and environmental safety hazards: We encourage all students, faculty, staff and visitors to report all suspicious or unusual activity that they observe. After a student contacts campus police, an officer(s) will be dispatched to the location of the incident. Campus police will simultaneously initiate emergency response from other agencies as needed or as required. For direct access to municipal emergency response services (police, fire, ambulance), dial 911 (or 9+911 from a University telephone).

If a student becomes a victim of, or witness to, a crime, the student should immediately contact campus police on campus at 274-5050 and off campus at 202.274.5050 or report in person at the Police Communications Center in Building 39, C-level. Police Communications operates 24 hours a day, 365 days a year.

### Annual Security Report at the University

The Annual Security Report (ASR) is made available in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act on October 1, 2012. The ASR contains information about campus security, including campus security programs, recommended safety practices, the authority of the Office of Public Safety, campus disciplinary procedures, alcohol and drug policies, crime reporting procedures, and campus crime statistics for the most recent three (3) year period.

The Annual Security report is available on-line and may be downloaded from: [www.udc.edu/ps](http://www.udc.edu/ps) (under publications). Individual printed copies of the 2012 ASR may be requested through the mail, or in person from the UDC Office of Public Safety/University Police, Building 39, C04, or by calling 202.274.5050.

### Environmental Safety

For matters involving environmental safety and management, such as chemical spills, waste management and other compliance and regulatory standards related to environmental safety, please call 202.274.7178 (during University business hours). Outside of University business hours, and in emergency situations, contact campus police at 202.274.5050.

### Satisfactory Progress

Any time a student drops a course or withdraw from the University, the student may be jeopardizing federally funded student financial aid, now or in the future. To continue receiving financial aid, students must successfully complete at least two-thirds of all the courses in which they enroll. Dropping after the first day of class may not affect academic standing, but it may affect the ability to receive financial aid. Please review this policy and others pertaining to financial aid online at: [http://www.udc.edu/financial\\_aid/maintaining\\_eligibility](http://www.udc.edu/financial_aid/maintaining_eligibility). A paper copy of this policy is also available by calling the Office of Financial Aid at 202.274.5060.

### UDC Graduation Rate Information

Graduation rate information is available online at: <http://www.udc.edu/irap/>. A paper copy of this report is also available by calling the Office of Institutional Research, Assessment and Planning (IRAP) at 202-274-504

### Student Conflict Resolution Process

Students can express concerns about matters related to the University and/or their respective university life experiences. The student should complete a Student Complaint Form to initiate the conflict resolution process. The form can be found online at

[http://www.udc.edu/docs/student\\_affairs/student\\_problem\\_complaint.pdf](http://www.udc.edu/docs/student_affairs/student_problem_complaint.pdf), in the Office of Student Life and Services, Building 38, Room A-10 or the Office of the Vice President for Student Affairs, Building 39, 301-J





## History of the University of the District of Columbia

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The University of the District of Columbia is, at once, very old and very new. The seeds of higher education for the District were planted in 1851 when Myrtilla Miner founded a school for colored girls. In 1879, Miner Normal School became a part of the public school system. Similarly, Washington Normal School, established in 1873, as a school for white girls, was renamed Wilson Normal School in 1913. In 1929, by an act of Congress, both schools became four-year teachers colleges, Miner Teachers College and Wilson Teachers College, and the only institutions of public higher education in the city. Years later, after the long awaited Supreme Court desegregation decision, the two colleges united in 1955 to form the District of Columbia Teachers College.

However, for many residents who did not wish to become teachers or who were both black and poor, the opportunity for advanced technical training or study for a liberal arts degree was an unattainable goal. Years of persistent lobbying for comprehensive public higher education by District residents and others caused President John F. Kennedy, in 1963, to appoint a commission to study the District's needs. It was no surprise that the Chase Commission found a definite and compelling need for public higher education in the District of Columbia. There was a demand for instruction that was affordable, and there was an overwhelming desire for learning that would enable residents to participate fully in the unique life of the city.

The Commission's report stimulated congressional action. Under the leadership of Senator Wayne Morse and Congressman Ancher Nelson, the Public Education Act (Public Law 89-791) was enacted in 1966. Two schools were established: Federal City College, with a Board of Higher Education that was appointed by the Mayor of the District of Columbia, and Washington Technical Institute, with a Board of Vocational Education that was appointed by the President of the United States. The mission of both institutions was to serve the needs of the community by directing the resources and knowledge gained through education toward the solutions to urban problems.

As a sign of hope for the future, both schools proudly opened their doors in 1968. There were so many applications for admission to Federal City College that students were selected by lottery. Federal City College and the Washington Technical Institute achieved land-grant status in 1968, more than 100 years after the first Morrill Land-Grant Act was passed by Congress. College Act Federal City College and the Washington Technical Institute achieved land grant status in 1968. The two schools grew in academic stature. The Washington Technical Institute received its accreditation in 1971 and Federal City College in 1974.

Although the schools were in their infancy, thoughts turned to a comprehensive university structure. In 1969, the District of Columbia Teachers College, the city's oldest teacher training institution, was placed under the jurisdiction of the Board of Higher Education. In 1974, the Board established a joint administrative support system and placed the District of Columbia Teachers College and Federal City College under a single president. In 1975, after Congress granted limited home rule to the District of Columbia, D.C. Law 1-36 authorized the mandate for consolidating the three schools.

A new Board of Trustees took office in May 1976, consisting of 11 members appointed by the Mayor and three appointed by the alumni associations. From that moment on, the monumental task of shaping a new University of the District of Columbia began. The Board of Trustees, acting to effect the consolidation, assigned Presidents Wendell P. Russell of Federal City College and Cleveland L. Dennard of Washington Technical Institute to work jointly in identifying, developing, and implementing tasks required to complete the effort. Beginning in February 1977, 22 task forces were formed to develop recommendations for Board action.

On August 1, 1977, the Board of Trustees publicly announced the consolidation of the District of Columbia Teachers College, the Federal City College, and the Washington Technical Institute into the University of the District of Columbia under a single management system. On the same day, the Board appointed Lisle Carleton Carter, Jr., the first president of the University.

In 1977, under the direction of President Carter, academic components began planning for consolidation of academic programs. These efforts culminated in the establishment of five programmatic colleges: Business and Public Management; Education and Human Ecology; Liberal and Fine Arts; Life Sciences Physical Science, Engineering and Technology University College, Continuing Education. The University also had several academic units. All of these entities comprised The University of the District of Columbia.

The University currently offers 80 undergraduate and graduate academic degree programs through the following colleges and schools: [College of Agriculture, Urban Sustainability and Environmental Sciences \(CAUSES\)](#); [College of Arts and Sciences \(CAS\)](#); [School of Business and Public Administration \(SBPA\)](#); [School of Engineering and Applied Sciences \(SEAS\)](#); the [Community College](#) and [David A. Clarke School of Law](#).



## Mission

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The University of the District of Columbia is an Historically Black College and University (HBCU) and an urban land-grant institute of higher education. Through its community college, university and graduate schools, it offers affordable post-secondary education to District of Columbia residents at the certificate, associate, baccalaureate and graduate levels. These programs will prepare students for immediate entry into the workforce, the next level of education, specialized employment opportunities or life-long learning.

## Vision

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The University of the District of Columbia will be a diverse, selective, teaching, research and service university in the land-grant and Historically Black College and University traditions, serving the people of Washington, DC, the nation and the world. It will also provide non-academic services, such as workforce development to help students with immediate entry into the workforce.

## Goals

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1. Create and nurture a premier community college open admissions policy major vehicle for workforce development gateway to a four-year college education
2. Become an outstanding institution for undergraduate education with a global focus
3. Offer exceptional, research-driven graduate and professional programs of importance to the District and the nation
4. Provide an important economic engine for the District of Columbia and region

## Responsibilities of the University

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The University of the District of Columbia strives to ensure that the institution continues its mandated mission to meet the comprehensive post-secondary education needs of the residents of the District of Columbia. Education, across the continuum, is central to the development of the city, not only in the present, but also in planning and building for the future. It is the foundation for the active participation of all of the citizens of the District of Columbia - economically, socially, morally, culturally and politically.

The University places education at the highest priority in plans to revitalize the city, without placing limits on what citizens can achieve and how they can contribute. University students come to the institution with a wide variety of educational interests, and to the extent that feasible, every effort is made to meet their needs.

The University shares with the rest of the region the responsibility of building a community of learners, able to access a multitude of educational options, as well as access entry and exit points along the educational pipeline. In this way, the city is assured of a world-class workforce, current in their skills and talents, advancing as rapidly as the industry base demands.

The University reaffirms its commitment to excellence through service, as it prepares its students for the global, technological challenges of life in the 21st Century.

## Accreditation

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The University of the District of Columbia is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (267) 284-5000. The Commission on Higher Education is an institutional accrediting agency recognized by the U. S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation. In 2005, the University received a 10-year, unconditional reaffirmation of its accreditation from the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Visit [www.udc.edu/academic\\_affairs/accreditation.htm](http://www.udc.edu/academic_affairs/accreditation.htm) for more information about UDC's accreditation.

## Location

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The main campus of the University of the District of Columbia is located at Connecticut Avenue and Van Ness Street in northwest Washington, D.C. The UDC-Community College is located at 801 North Capitol Street NE, just two blocks from Union Station. Other programs are offered at Bertie Backus: 5171 S. Dakota Ave. and Regan National Airport. All University buildings are easily reached by public transportation.

The University's location in the Nation's Capital offers students access to cultural, intellectual, and political activities unequaled anywhere in the United States. The three branches of the federal government, the Library of Congress, the Smithsonian Institution, the numerous galleries, museums, halls for the performing arts, and other facilities of the Nation's Capital provide a rich setting for educational endeavors. The Washington metropolitan area features numerous parks and woodlands, and beaches and mountains are within easy commuting distance of the District. Bicycle paths, hiking and bridle paths and historic sites are found throughout the area. Washington, D.C. offers students a rich sociocultural setting reflecting the diverse ethnic makeup of the city. Museums, radio stations, entertainment events, and community activities oriented to the multicultural community abound. Opportunities for students to participate in the life of the community are enhanced by the University's commitment to involvement in the life and needs of the city. Museums, radio stations, entertainment events, and community activities oriented to the multicultural community abound. Opportunities for students to participate in the life of the community are enhanced by the University's commitment to involvement in the life and needs of the city.



## Office of Recruitment and Admissions

Building 39, A level Phone: 202-274-615

### Undergraduate Admissions Application Procedures

The Office of Admission is responsible for the timely and orderly processing of admission/re-admission applications for new, transfer, and returning students. Specifically, the Office disseminates appropriate admission-related materials to potential applicants; accepts and processes applications for new, transfer, and returning students; creates applicant folders for all new students; evaluates transcripts and certifies advanced standing for eligible students; responds to related questions; retrieves and distributes mail and other documents that affect the status of applications; interfaces with academic departments to evaluate academic transcripts; and communicates with individuals regarding the status of their applications, documents, and other pertinent information.

Most new students are admitted to the University of the District of Columbia for the fall and spring semesters, although some students may apply for admission during the summer term (See academic calendar for the exact dates). Secondary school students may apply for admission to the University any time following the completion of their junior year of high school.

- Students who have graduated, or will soon graduate, from an approved secondary school or who possess a valid General Education Development (GED) certificate and who have not previously enrolled in any postsecondary institution apply as **freshmen**.
- The University of the District of Columbia maintains an *open admissions policy to the University of the District of Columbia's Community College*.
- Students who wish to be admitted into the **University's Bachelor and/or Master Degree programs follow a selective admission criterion**.
- Students who have been enrolled previously in another postsecondary institution apply as transfer applicants.
- Students not pursuing a degree at the University or who have received a degree from another accredited institution may apply as special students.
- Applicants who complete the application process by the deadline will receive written notification of their admission status from the Office of Recruitment and Admissions.

The application form or online web application for admission, non-refundable application fee, official transcripts, and all other required documents must be submitted by the application deadline for the semester in which the applicant wishes to enroll. All documents become the property of the University of the District of Columbia's Office of Recruitment and Admission

Submission of an application certifies that all information given is complete and accurate, applicants agree to abide by all the rules and regulations of the University. Penalty for falsification of any information or intentional omission of information may lead to refusal of admission or dismissal from the University

Application information, University rules and regulations, and additional information describing programs offered by the University can be obtained by writing or visiting the Office of Recruitment and Admissions, 4200 Connecticut Avenue, N.W., Washington, D.C. 20008, Building 39, Level A or by visiting our website at [www.udc.edu](http://www.udc.edu). The telephone number is (202) 274-6110.

### Admission Standards

- Undergraduate applicants can apply to either the Community College to obtain an Associate Degree or to the Flagship to obtain a Bachelor's degree.
- If students apply but do not qualify for admission to the Flagship, UDC will admit student applicants into the Community College, when possible.
- If students apply to the community college, they will only receive admission to the Community College.
- *Students cannot be concurrently enrolled and/or admitted into the Community College and Flagship.*

### The UDC-Community College

All students who have earned a high school diploma, GED, or equivalent are eligible for admission to the Community College.

#### GED General Education Development Test (GED)

Generally, First Time in College (FTIC) student applicants who have obtained a GED are admitted into the University's Community College. GED student recipients who desire admission to the Flagship must submit SAT, ACT and/or ACCUPLACER test scores that meet the Flagship admission criteria.

### Flagship Bachelor's Degrees

First Time in College applicants interested in admission to a Flagship Bachelor's degree must have earned a high school diploma, GED, or equivalent, and meet the following minimum academic standards:

*Earned a 2.5 high school GPA and a 1200 SAT or 16 ACT Score*

**OR**

*Earned a 2.0 high school GPA and 1400 SAT or 19 ACT Score*

First Time in College applicants who do not meet the above requirements may still be eligible for admission to the Flagship if they achieve minimum scores on the ACCUPLACER examination sub-tests as follows:

*English Score: 86*

*Mathematics Score: 85*

*Reading Score: 78*

### Adult learners

FTIC applicants who have been out of school for over 3 years and who never took the SAT or ACT are generally admitted to the Flagship if they have achieved a 2.5 H.S. GPA. These students are encouraged to submit ACCUPLACER scores to UDC to assist the Office with their application review and admissions decision.

### Home Schooled Applicants

In order to meet the admission requirement of the University of the District of Columbia, Home Schooled Students are required to submit passing scores on the General Education Development Test (GED).



## **Freshman Applicants**

A freshman applicant must submit the application for admission, the non-refundable application fee and an official transcript of all high school coursework and grades. The transcript must reflect the date of graduation and must be mailed directly to the Office of Recruitment and Admissions by the applicant's secondary school.

**The application is not complete until all documents are received.**

The Office returns a decision to applicants who have submitted a complete application within 2 weeks of receipt of all documents required for an admissions decision. During peak application periods, the Office may require additional time to return a decision. Students receive notice through both email and hard-copy.

A freshman applicant may be eligible for admission prior to actual graduation from a Washington, D.C. and/ Metropolitan high school on a provisional basis. Such provisional status will be updated by the Office of Recruitment and Admissions upon receipt of the student's complete and official high school transcript that reflects the date of graduation and the school's seal.

## **Readmission**

Students who have not registered for classes *for two consecutive semesters (excluding summer sessions)* and students suspended for academic reasons will be required to apply for readmission to the University. Applications for readmission along with a non-refundable readmission fee must be received in the Office of Recruitment and Admissions by the application deadline for the term for which the student is seeking admission. Admissions Representatives will review applications, consider academic records, and grant readmission in accordance with the policies of the University.

## **Certificate Applicants**

The admission requirements for an applicant seeking admission to a certificate program are:

An official high school transcript reflecting the date of graduation, GED Certificate, or one official transcript sent from each postsecondary institution attended as appropriate; and official transcript from each postsecondary institution attended as appropriate.

### **College Board Advanced Placement (AP) and International Baccalaureate (IB)**

Students may receive credit for scores on the Advanced Placement Standardized tests for AP courses while taken in high school. Receipt of credit is also acceptable by students who have earned credits toward an International Baccalaureate (IB). The University will only consider grades received at levels 3, 4 and 5, for AP credits and a score of 7 or above for IB credits. Such evaluation will solely be accepted within the first two semesters of enrollment at the University. Further, academic departments reserve the right to determine the acceptable grade for courses offered in their departments.

### **College Level Examination Program (C.L.E.P.)**

Examinations designed to provide the student with an opportunity to earn credit by examination. The University of the District of Columbia awards course credits to eligible students for acceptable scores (as reflected on the Grade Report), made on the College Level Examination Programs of the Educational Testing Service *prior* to admission to the University. After enrolling in the University, a student cannot use this credit by examination option unless prior authorization has been given by the chairperson of the department offering the course that credit is to be awarded.

## **International Applicants**

An international student applies to the University of the District of Columbia by submitting an online application with the non-refundable application fee, supporting educational documents, and an Affidavit of Financial Support.

- International students with non-immigrant visas are admitted as international students.
- International applicants **must** pursue a degree and are not eligible for non-degree student status.

## **Admission deadlines**

All supporting documentation is due no later than 15 days after the admission deadline.

### **Fall Semester deadline**

Applications for the Fall Semester are due by **April 15**.

### **Spring Semester deadline**

Applications for the Spring Semester are due by **September 15**.

### **Summer Semester deadline**

Applications for Summer Sessions are due **March 15**.

## **International-First Time in College Applicants**

The admission status of students who have not attended another postsecondary institution is based on School-leaving Certificates or external national examinations used in the particular country as a terminal secondary certificate.

For students who have completed high school only, an original transcript and diploma (School Leaving Certificate) showing all grades (marks) and the date of graduation must be received by the University of the District of Columbia in the form of a *document-by-document* evaluation by a member organization of the National Association of Credential Evaluation Services, Inc. (NACES). Students must visit the NACES website ([www.naces.org](http://www.naces.org)). Hand delivered originals or copies will not be accepted. Documents must be translated if in a language other than English.

Students who do not hold a School-leaving Certificate of a level equivalent to a high school diploma in the United States must take the GED examination or graduate from an accredited high school in the United States.

## **International-Transfer Applicants**

For students who have attended University, the academic transcript must be evaluated by a member organization of the National Association of Credential Evaluation Services, Inc. (NACES). Students must visit the NACES website ([www.naces.org](http://www.naces.org)). Results of the evaluation must be in a *course-by-course* format and mailed directly from one of the approved organization to the University of the District of Columbia. Additionally, if the period of attendance at the University was less than one year, high school documents, as indicated above, must be submitted along with the Application for Admission.

**Residents of the United States, including foreign citizens with immigrant (resident) visas, foreign citizens with G-4 visas, and undocumented aliens, are not considered international students and should apply as regular freshmen or transfer students.**



## **Language Requirements**

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### **Native English Speakers**

International applicants from countries where English is not the official language or who are non-native English speakers must submit proof English Proficiency for general admission to the Community College or the Flagship in one of the following ways:

### **Non Native English Speakers**

International students whose native language is one other than English must take the Test of English as a Foreign Language (TOEFL), [www.TOEFL.org](http://www.TOEFL.org).<sup>\*</sup> Scores from the IELTS (International English Language Testing System) are also acceptable.

### **Submit the Test of English as a Foreign Language (TOEFL) scores:**

- Students with scores < 450 on the written test or 45 on the Internet test will be denied admission to the Community College
- Students with scores > 450 on the written test or 45 on the internet test and ≤ 547 on the written test or 78 on the internet will be accepted into the Community College and to the UDCC ESL program
- Minimum score of 550 on the written test or 79 on the Internet test for admission to the Flagship

### **Submit International Language Testing System (ILETS) scores:**

- Minimum overall band score of 5 for admission to the Community College
- Minimum overall band score of 6 for admission to the Flagship

### **Submit SAT or ACT scores:**

- Minimum SAT I Critical Reading scores of 500 or ACT-English scores of 16 for admission to UDC-CC
- Minimum SATI Critical reading scores of 600 or ACT-English score of 19 for admission to the Flagship
- International students are not required to submit SAT or ACT test scores for admission.

### **\*Requirement Waiver**

This requirement will be waived upon the submission of an official college transcript evidencing the successful completion of two college-level English courses at an accredited American college or university.

### **College Level English:**

- Submit a transcript indicating a grade of “C” or better in one college-level English course at an accredited post-secondary institution in the United States.
  - Graduated from an ELS Educational Services English proficiency program with a minimum proficiency score of 109 for the Community College or 112 for the Flagship undergraduate or graduate programs.
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## ***Non-Degree Applicants\* (Special Undergraduate)***

A non-degree applicant is one seeking admission to the University to take courses but who is not seeking a degree from a program of study.

Non-degree undergraduate student applicants are allowed to register for up to two consecutive semesters and must remain in good academic standing. Thereafter, students who wish to continue studying must re-apply for re-admission. Applying for re-admission requires an online application, the appropriate application fee, and any supporting documents which include but are not limited to official HS and/or college transcripts.

### **• Non-Degree Seekers with a Degree**

Persons who are interested in taking courses only, and who have earned degrees should apply as non-degree students. A copy of the official transcript, unofficial transcript, or copy of the degree may be submitted.

### **• First Time in College Non-Degree Seekers**

**Non-degree seeking** students must graduate from high school, and for the Flagship, earned a 2.0 HS GPA, for admission.

### **• Transfer Non-Degree Seekers**

Transfer students must be in good academic standing and/or have an aggregate 2.0 College GPA for admission.

### **• Non-Degree Seekers Enrolled at another Postsecondary Institution**

A person presently enrolled and pursuing a degree at another accredited undergraduate postsecondary institution who wishes to attend UDC or UDC-CC should apply as a non-degree student. A non-degree student applies by submitting an online Application for Undergraduate Admission and paying the non-refundable application fee by the deadline for the term for which he or she is seeking admission. The UDC Office of Recruitment and Admissions must receive a letter of good academic standing or an unofficial college transcript by the application deadline. The letter must be sent by the institution where the applicant is enrolled. The Office of Admissions will not accept a letter of permission to attend UDC in lieu of a letter of good academic standing.

*\*Dual Enrollment and Senior Tuition Program participants are Non-Degree applicants under Special Programs. These program descriptions can be found on the next page.*



### ***Special Program Descriptions\****

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#### **Dual Enrollment Program- A Special Program Initiative**

High school seniors who have a cumulative 3.0 GPA or higher are eligible to take college classes at either the Community College or Flagship while continuing their high school education. Students apply and pay their application fee as undergraduate non-degree seeking students, and must submit copies of their transcripts along with the application and the application fee. Similar to other non-degree seeking students, test scores are not required, and Program Managers must update the applications of participating students every semester.

The University offers a number of dual enrollment programs for District of Columbia schools, including:

##### **Dual Enrollment (DE)**

Standard program open to all students; students are responsible for paying for their courses and there are no course restrictions.

##### **HI/SCIP program (HIS)**

Funded by Office of the Provost; limited number of students that must complete a special application; students restricted to one class in the fall and spring semesters of the senior year at no charge.

##### **Schools Without Walls Program(SWW)**

Only for selected rising juniors and seniors who attend the School Without Walls; students restricted to one class each semester at no charge.

##### **Friendship Edison Collegiate PCS (FEC)**

Under a current Memorandum of Understanding, UDC teaches college courses at Friendship Edison for freshmen and sophomores, and juniors take courses at UDC

The main point of contact for dual enrollment programs is the Office for TRIO and College Preparatory Programs and, Office of Community Outreach and College Readiness at the Community College. Students must first contact these offices of their interest in dual enrollment.

The Office for TRIO and College Preparatory Programs or the Office of Community Outreach and College Readiness (Community College) will follow up with eligible students for registration and enrollment purposes. Students earn college credit for the courses in which they enroll.

#### **Office for TRIO and College Preparatory Programs**

☎202.274.6241 E-mail: [TRIO@udc.edu](mailto:TRIO@udc.edu)

#### **Office of Community Outreach and College Readiness**

☎202.274.6726 E-mail: [cc@udc.edu](mailto:cc@udc.edu)

#### **Senior Tuition Program**

Adults who are District residents and ages 65 and older are eligible to take classes at UDC free of charge. The Senior Tuition Program is administered by the Institute of Gerontology a program in the Land-Grant Division of the College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES). The Senior Tuition Program is one of many programs designed to engage the communities and neighborhoods where we are located and to enrich the lives of District of Columbia residents.

The policy regarding tuition and fees for senior citizens has been in effect since 1978 without change. It states that “persons 65 years of age or older, upon their application, shall be admitted to classes in the University under these provisions provided that the individuals are residents of the District of Columbia, meet all established prerequisites for the course(s) to be taken; admission in a class or section will not deny space in the course or section to a regularly matriculating student of the University”.

Students apply through the Institute of Gerontology and pay their application fee as undergraduate non-degree seeking students.

The policy also states that “tuition and fees normally required of students admitted to the University will be waived except in cases where the applicant **matriculated in a degree program**”.

Students who have earned a postsecondary degree or meet Flagship admission requirements will be admitted to the Flagship University. All other applicants will be admitted to the Community College. However, senior citizens enrolled in the Community College will be permitted to take Flagship courses, if they have met the prerequisite for the courses.

Students must first alert The Institute of Gerontology of their interest to apply.

The Institute of Gerontology is responsible for verifying eligibility and district residency and assisting **non-degree seeking** students with registration and enrollment purposes.

#### **Non-Degree Seekers - Senior Tuition Program**

Applicants from this program should apply as **Non-Degree Applicants (Special Undergraduate)**. Students who are only interested in auditing courses need only submit their application and application fee.

#### **Degree Seekers - Senior Tuition Program**

Such matriculating students shall pay one-half the amount set for students within their category unless otherwise deferred, or waived by specific Board of Trustee authority”. Students who plan on matriculating at the university and earning college credit must also submit their transcripts and follow the same policies for all degree seeking students.

*\*Dual Enrollment and Senior Tuition Program participants are considered Non-Degree applicants under Special Programs.*



## Transfer Applicants

Transfer applicants must submit an online Application for Admission, the non-refundable application fee, and official copies of academic transcripts from all previously attended postsecondary institutions. Failure to list all institutions attended may result in the denial of transfer credit. Transcripts should be sent directly to the Office of Recruitment and Admissions; however unopened official transcripts issued to students may be accepted on a case by case basis.

### Transfer Applicants to UDC-CC

All transfer students are eligible for admission to the Community College if they are not currently on academic probation or suspension at a post-secondary institution.

### Transfer Applicants to Bachelors level Programs

Transfer students are eligible for admission to the Flagship if they meet the following criteria:

Earned 30 college credits or more  
and have an aggregate GPA of 2.0 or higher

OR

Earned less than 30 college credits  
and earned a H.S. GPA of 2.5 or higher

### General Information

All transfer credits are evaluated by a Transfer Student Counselor in the Office of Recruitment and Admission. Academic departments reserve the right to determine those credits that will be used to satisfy degree requirements. Students are encouraged to meet with academic advisors, each semester, to ensure that degree requirements are being met.

- Transfer students who are taking college courses during their semester of application such that they will have earned 30 credits and whose aggregate GPA on credits earned to date is 2.0 or higher are admitted to the Flagship. Such students must provide UDC with their final transcripts demonstrating that they have earned an aggregate 2.0 GPA, or they will not be able to register for Flagship courses and must enroll in the Community College instead.
- If a student is enrolling as a probationary transfer, the student must achieve a term GPA of 2.5 during the first term of enrollment.
- Transfer credits from institutions on the quarter system or a system other than the semester system are computed on the standard equivalency basis for conversion to credit hours. These courses may not always be equivalent to the needed credit hours of a particular course.
- All admissible transfer credits earned will appear on the student's permanent academic record. The grades and credit hours earned are not computed in determining term- or cumulative-grade-point average, nor will they affect academic standing.
- Transfer credit may also be awarded for such formal course work completed in the armed services, government agencies, and private corporations as identified and evaluated by the Office of Educational Credit of the American Council on Education (ACE).
- UDC also awards credit for successful completion of general and subject examinations of the College Level Examination Program (CLEP).
- Students who were academically dismissed from their last institution must wait two years before they are eligible for application to UDC.

### Financial Aid Transcript

Transfer applicants applying for financial aid must submit a **financial aid transcript** to the University's Financial Aid Office from each former postsecondary institution.

## Transfer Credit Policies

The following sections provide a summary of the UDC Transfer Credit Policies.

### Transfer Credit: Coursework

- UDC has no maximum in the number of credits allowed for transfer, but consistent with UDC's residency policy, students—including post-baccalaureate students—can apply a maximum of 90 transfer credits towards a Bachelor degree and a maximum of 45 credits towards an Associate degree.
- Additional credits towards the degree must be earned in residence at UDC.
- Academic departments reserve the right to determine those credits that will be used to satisfy degree requirements.
- UDC accepts academic coursework from regionally accredited colleges and universities.
- UDC does not accept vocational, developmental, independent study, internships/practicum, pass/fail, or other specialized courses that are specific to the institution in which the student is coming from (i.e. orientation or learning skills, internships, or practicum courses).
- Transfer credit is approved only for courses passed with a minimum grade of "C" or better or a 2.0 on a 4.0 grade point average scale, or a "B" or better for graduate students, however, the University does not recognize or give credit for either a plus or a minus (i.e., B+, C-).
- Student's GPA at UDC is calculated solely on the basis of work taken at UDC.
- Courses that have a co-requisite component (i.e. Natural science lecture and lab) in which the major component (i.e. Biology lecture) does not meet the grade requirement needed for transfer, the co-requisite (i.e. Biology lab) would not be eligible even if the co requisite course was completed with the grade requirement.
- College level work given in or under the direction of an accredited college or university as part of the armed services program is accepted for credit on the same basis as other transfer work. UDC uses the American Council on Education's Guide to the Evaluation of Educational Experience in the Armed Forces to evaluate military experience and education experiences unaffiliated with accredited institutions of higher education.
- Transfer credits from institutions on the quarter system or a system other than the semester system are computed on the standard equivalency basis for conversion to credit hours
- UDC will approve transfer credit earned at institutions of higher education outside of the U.S. and Canada that are fully recognized by the Ministry of Education, provided that such credits are earned through university-level coursework and are presented with equivalent grades of "C" or higher. All academic work completed outside of the US at the post-secondary levels must be evaluated by a member organization of NACES before UDC will evaluate the coursework for a determination of transfer credit. Please visit the NACES website for more information.





### ***Transfer Credit: Examinations***

The following key policies govern the transfer of credit by examination for admitted students:

- Community College students can earn a maximum of 15 credits by examination and Flagship students can earn a maximum of 30 credits combined from the following examinations:  
Advanced Placement (AP), College Level Examination Program (CLEP), the DANTES Subject Standardized Tests (DANTES), SAT Subject Tests (SAT II), and the International Baccalaureate (IB).
- Students who seek to earn credit through examination are required to submit official exam results and/or official transcripts directly to UDC from the testing agencies.
- Students earn credit by examination at UDC for elective credits. Students earn credits by examination towards degree requirements only if separately approved by student's Academic Departments.
- UDC uses the American Council on Education's standards and guidelines to evaluate and approve testing credits

### ***Transfer Credit Evaluation Reports***

Students granted credit for transfer work will receive a credit evaluation report up to 21 business days following the receipt of the **Student Confirmation To Enroll Form**. The evaluation reports will be sent to students by either electronic mail or standard U.S postal mail.

- The Admissions office provides an initial evaluation of credits toward a student's identified degree. The office will determine transfer courses meeting general education requirements.
- The student's academic department has the final authority on credits accepted for degree requirements as well as associated course equivalencies.
- General Education credits are coded on Transfer Credit Reports with a subject code of "IGED" and the equivalent General Education course name.
- The Office attempts to identify course equivalencies for all courses. When an equivalent course can't be identified, courses are coded with a 900-999 code credit; begin with a 1-4 signifying whether the course is a freshman, sophomore, junior, or senior level course (1900, 2901, etc.); and include the transferring course name.
- All credits approved for transfer that do not have an IGED code or that are not part of a student's degree program of study can be used towards meeting the University's overall credit requirements for graduation (minimum of 120 credits).
- Students are strongly encouraged to contact their Transfer Counselor with any questions about their transfer evaluation as soon as possible after receiving the report, and to bring a copy of their Transfer Credit Report with them to all meetings with their academic advisor.

### ***Transfer Credit Appeal***

Within 21 days (3 weeks) of receiving their Transfer Credit and Examination Report, newly enrolled students who wish to appeal the evaluation of transfer credit must submit a written request to either their assigned Transfer Counselor for general education or elective credits, or directly to their Department for degree credits.

As an attachment, students should include the course catalog description and syllabus or course outline (from the appropriate year) for each course in question, which if possible, should include the course's learning outcomes.

### ***Second Degree Applicants***

Candidates for a 2nd degree are exempt from the University's General Education requirements, and can receive a maximum of 45 transfer credits towards an Associate degree or 90 credits towards a Bachelor's degree consistent with the University's residency policy.

For such students, the Office will not perform a course-by-course evaluation of the student's previous courses but will transfer wholesale the total number of credits that students can apply to their 2nd degree up to these credit limits and excluding degree-specific credits related to student's proposed 2nd degree.

Students must meet with the Department Chair of their 2nd degree, and bring official copies of all relevant transcripts with them to this meeting, so the Chair can conduct an evaluation of degree-specific credits for approval, and advise students on the courses needed to earn their degree at UDC. Department Chairs are responsible for communicating any approved degree-specific credits to the Office's Transfer Coordinator in a timely fashion who will then enter these degree-specific transfer credits into Banner.

Regardless of how many degree credits are approved by the Department, students must comply with the University residency policy to earn a 2nd degree.

### ***Graduate Transfer Credit***

Up to nine semester hours earned at another institution may be applied to a master's degree. For transfer credit, individual courses: (1) must have been completed with a grade of "B" or better; (2) must have been completed within five years of the beginning of the semester for which the student is admitted to a degree program, and (3) must not have been a part of a program for which a degree has been awarded.



## Graduate Admissions Application Procedures

### Degree Applicants

A degree applicant is one seeking admission to a specific graduate degree program. The requirements for admission are:

- Two official transcripts from each collegiate institution attended;
- Two letters of recommendation;
- Entrance test score(s); and
- A 500-word typed essay indicating the reason you chose your particular program.

### Admission requirements:

1. Submit an online application and remit the non-refundable application fee and all other required documents as indicated on the application. Former graduate students may apply for readmission by completing and returning an application with the non-refundable application fee.
2. Submit transcripts for all undergraduate and graduate studies. Official transcripts (i.e., a transcript bearing the seal of an authorized University official) in sealed envelopes issued by the University Registrar, must be submitted along with the application and other supporting materials.
3. International students with degrees awarded outside the United States must submit detailed reports of courses taken and grades received, must be evaluated by a member organization of the National Association of Credential Evaluation Services, Inc. (NACES). Students must visit the NACES website ([www.naces.org](http://www.naces.org)).
4. Degree seeking applicants must have appropriate test results sent. Test scores, whether entrance tests or TOEFL (Test of English as a Foreign Language), are to be mailed directly to the University by the Educational Testing Service (ETS).
5. Applicants are required to take the appropriate standardized test specified by the appropriate program of study. The following standardized tests are required:
  - MBA - Graduate Management Admission Test (GMAT)
  - MPA - Graduate Management Admissions Test (GMAT)
  - All other degree programs - Graduate Record Examination (GRE)
6. Meet any additional departmental requirements, such as a specific grade point average in former academic work, interview, and written essay or prescribed examinations.
7. Admission will be based on the applicant's general preparation for advanced study and specific training in the field of concentration. No action will be taken on an application until all required documents are on file in the Office of Recruitment and Admissions.

### Admission deadlines

Applicants for graduate admission must have complete applications (all documents) on file no later than:

#### Fall Semester deadline

Applications for the Fall Semester are due by June 15.

#### Spring Semester deadline

Applications for the Spring Semester are due by November 15

#### Summer Semester deadline

Applications for Summer Sessions are due April 15

- Applicants who complete the application process by the deadline will receive written notification of their application status.
- Failure to adhere to the deadline may delay acceptance until the following semester

### Readmitted Applicants

A former graduate student seeking readmission to a degree, non-degree, or certificate program must submit an admission application, two official transcripts from each postsecondary institution attended since last enrolled at the University, and pay the non-refundable readmission fee.

### International Graduate Student Admission Procedures

The University is approved by the Department of Homeland Security, U.S. Department of Justice, to accept international students. All international students who are not on an immigrant or a refugee visa are considered non-residents for tuition purposes and must pay non-resident tuition.

Selection of international applicants for graduate studies is based on the applicant's undergraduate record; results of the appropriate standardize tests, and letters of recommendation.

Individual departments may require pre-admission examinations before granting admission. Applicants should check the requirements of the department in which they wish to study.

### Deadlines for required test scores, affidavits of support, and other supportive documents:

Applicants for graduate admission must have complete applications (all documents) on file no later than:

#### Fall Semester deadline

Applications for the Fall Semester are due by May 15.

#### Spring Semester deadline

Applications for the Spring Semester are due by September 15

#### Summer Semester deadline

Applications for Summer Sessions are due March 15

**All documents become the property of the University and are not returnable. Therefore, students are advised not to submit original certificates but to submit certified copies of documents**

**Applicants with F-1 or J-1 visas are not eligible to apply for non-degree status**

### Language Requirements

In addition to the required documents listed under "Graduate Admission Application Procedures," international applicants must provide evidence of English language proficiency.

#### Native English Speakers

International applicants from countries where English is not the official language or who are non-native English speakers must submit proof English Proficiency for general admission to the Community College or the Flagship in one of the following ways:

#### Non Native English Speakers

Take the Test of English as a Foreign Language (TOEFL), [www.TOEFL.org](http://www.TOEFL.org).

#### Minimum score on the TOEFL:

- Paper and Pencil Test – 550
- Computer-Based Test – 213
- Internet-Based Test – 79

#### Language Requirement Waiver

- This requirement will be waived upon the submission of an official college transcript evidencing the successful completion of a degree earned in an accredited American college or university
- Submit a transcript indicating one year completed in academic good standing in an accredited American postsecondary institution



### **Non-degree Applicants (Unlimited Enrollment)**

- A non-degree applicant is one seeking admission to the University to take graduate courses but who is not seeking a degree from a graduate program of study. Admission will be based on the applicant's preparation for advanced study and specific training in a selected field of concentration.
- Applicants with F-1 or J-1 visas are not eligible to apply for non-degree status. However, students who have graduated from the University within the past academic year and who have filed a degree application and are awaiting acceptance to a graduate degree program may be accepted upon completion of a non-degree application.
- Non-degree applicants who wish to study at the graduate level are required to submit proof of completion of undergraduate degree. Inquiries should be directed to the Office of Recruitment and Admissions.
- A maximum of nine hours taken as a graduate Non-degree student may be applied to a graduate degree program.

### **Graduate Transfer Credit**

Up to nine semester hours earned at another institution may be applied to a master's degree. For transfer credit, individual courses:

- must have been completed with a grade of "B" or better;
- must have been completed within five years of the beginning of the semester for which the student is admitted to a degree program,
- must not have been a part of a program for which a degree has been awarded.

### **Graduate Writing Proficiency Requirement**

Demonstrated proficiency in writing is required of all graduate students.

- With the exception of MBA and MPA applicants, all other students applying for admission to graduate programs must take the Graduate Record Examination (GRE) Analytical Writing Subtest as a requirement of admission. The minimal acceptable score is a 4.0.
- Students applying for admission to the MBA and MPA programs must take the Graduate Management Admission Test (GMAT), and earn a minimum score of 3.0 on the Analytical Writing Assessment subtest of the GMAT.
- Students failing to meet the respective criterion score may be admitted conditionally. If admitted conditionally, a student must enroll in and pass (with a grade of B or better) the University's graduate writing proficiency course during their first semester of enrollment.

### **Document Retention**

All documents submitted in support of applications become a part of the permanent records of the University and are not returnable or transferable. Documents submitted by applicants who do not enroll for course work will be purged after one academic year.

### **Enrollment in Undergraduate Courses**

A graduate student enrolled at the University may enroll in undergraduate courses to satisfy special needs or prerequisite requirements. However, undergraduate credits earned do not apply toward a graduate degree. Additionally, regardless of the level of the course, graduate students are required to pay graduate fees.



## Student Residency Classification

Policy on Student Residency Classification for Admissions and Tuition Purposes:

### Residency Definition

For admissions and tuition purposes, applicants are classified as District, Metro Area, or Out-of-State students, and pay differing tuition rates accordingly. These classifications are defined as follows:

District: Bona fide residents of the District of Columbia

Metro Area: Bona fide residents of one of the following counties: Montgomery County, Prince George's County, Arlington County, Alexandria County, or Fairfax County

Out-of-State: residents of any state, territory, or county other than those defined by the District and Metro Area

### Burden of Proof

The person seeking District or Metro Area status has the burden of providing a preponderance of evidence that he or she satisfies the requirements and standards set forth in this Policy. Assignment of District or Metro status will be made by UDC based on the totality of facts known or presented. With the special population exceptions noted below, students who fail to provide UDC with documentation as to their residency status will automatically be classified as Out-Of-State and pay the tuition accordingly.

### District or Metro Area Residency Status Qualification

To qualify for District or Metro Area status, all students must demonstrate that, for at least 12 consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the student seeks in-state tuition status, the student was and currently is:

- Domiciled in the District or Metro area, and either paid District of Columbia or Metro Area income taxes or received public assistance from a District of Columbia/Metro Area government agency
- OR
- Claimed as a dependent on District of Columbia or Metro Area resident tax returns filed by a parent or spouse who is domiciled in the District or Metro Area

All applicants must also show that they have resided in the District or Metro Area primarily for a purpose other than that of attending an educational institution in the District or Metro Area.

### Proof of Qualifications

#### Primary Proof of Residency

In order to prove that students meet the qualifications for District or Metro Area status, students can submit one of the following primary forms of proof that covers the 12 month period in question on their own behalf, or if claimed as a dependent, on behalf of their parent(s) or legal guardian(s):

- District of Columbia Form D-40 or D-40EZ income tax return
- Virginia Form 760 (resident individual income tax return) or other resident individual tax return that bears an address in a Metro Area county
- Maryland Form 502 (resident individual income tax return) or other resident individual tax return that bears an address in a Metro Area county

OR

- Documentation from a District, Maryland, or Virginia government agency showing receipt of public benefits from that agency and bearing an address within the District or Maryland or Virginia. This documentation may include statements of benefits, assistance checks, receipts, or other documentation meeting the required criteria.

#### Secondary Proof of Residency

Students who are unable to provide a primary proof of residency can prove their District or Metro Area status by providing the Office with copies of at least TWO of the following secondary forms of proof that covers the 12 month period in question:

- Lease or mortgage agreements
- Driver's license
- Motor vehicle registration
- Voter registration
- Federal income tax returns

#### Special Populations Proof of Residency

The following special populations are exempt from providing primary or secondary proofs of residency, and establish residency as outlined below:

#### Current District or Metro Area High School Graduates and Recent Graduates:

This policy applies ONLY to students who are currently attending a District or Metro Area public high school at the time of application, or who have graduated from a District or Metro Area public high school within 12 months of the last date available to register for courses in the semester/term for which the student seeks District or Metro Area residency status.

Students who meet this qualification will automatically qualify for District or Metro Area status at the time of application only if they submit, as part of the admissions process, an official high school transcript with their address noted on the transcript.

Students whose transcripts do not include an address must provide a certification form from their high school indicating that they were classified as a resident of the District or Metro Area county, or provide one of the primary or secondary forms of proof noted

#### District Government Employees:

This policy applies ONLY to students who are current employees of the District of Columbia Government, and who are actively engaged in agency-sponsored education and training and whose enrollment at UDC will enhance their education and training. Such employees who provide the proof noted below qualify for District residency status.

Students who meet this qualification must provide two forms of proof.

1. Students must provide the Office with an employment letter identifying dates of employment or other official document from District Human Resources that they have guaranteed employment with the District Government for the semester/term for which the student seeks District residency status.
2. Students must provide the Office with a letter, on letterhead and signed by their supervisor, from their employing agency that clearly states that the employee is engaged in agency-sponsored education and training and that enrollment at UDC will help to enhance their education and training.



*Policy on Student Residency Classification for Admissions and Tuition  
Purposes-Continued*

**Active-Duty Military:**

This policy applies ONLY to student who themselves, or their spouse, parent, or legal guardian, is an active-duty member of the U.S. Armed Forces, Selective Reserve, or National Guard. Active duty military personnel who provide the proof noted below qualify for District residency.

Students who meet this qualification must provide proof of their own, or their spouse's, parents', or legal guardian's, active-duty status for the semester/term for which the student seeks District residency status.

**Ineligibility for District or Metro Area Status**

The following student types are ineligible for District or Metro Area residency, and are automatically classified as Out-of-State:

- Persons with student (F) Visas
- Persons with diplomatic (A) Visas
- Foreign organization employees with (G) Visas
- Persons having other non-immigrant Visas

**Residency Submission and Evaluation Procedures**

The following procedures govern the classification of residency status:

With the exception of those special population of students whose transcripts are sufficient for residency classification purposes, ALL other students who wish to establish District or Metro Area status must submit the documentation identified above to the Office of Admissions within at least 14 days prior to the last date of registration for the term to guarantee that the Office reviews the forms in time for the current semester.

Students can either mail the appropriate documentation to the Office of Admissions with their Identification Number (N-Number) and the type of forms (Residency) clearly marked on the envelope, or send electronic/scanned copies of documents to the Office at [UDCadmissions@udc.edu](mailto:UDCadmissions@udc.edu)

Based upon the preponderance of evidence received, the Office will make an initial determination of residency status, and communicate this decision to students, within 7 days after receipt of the documentation via the primary email address provided by the student. The determination made at that time, and any determination made thereafter, shall prevail for each semester/term unless and until the determination is successfully challenged or changed.

For new students who wish to rebut their status classification, a change in status must be requested by a student and documentation received by the Office of Admissions within 7 days of the initial residency notification.

Continuing students who want to change their residency status must request a change and submit all documentation to the Office of the Registrar at least 21 days prior to the last date of registration for the semester/term for which the change is requested. The Registrar will issue a decision within 15 days of receipt.

Continuing students are required to notify the Office of the Registrar in writing within 7 days of any change in circumstances which may alter their residency status.

In the event that students submit incomplete, false, or misleading information to UDC for their initial status classification, or subsequently fail to notify UDC of circumstances which would alter their residency status, UDC may, at its discretion, revoke District or Metro Area status and take disciplinary action including suspension or expulsion. If District or Metro area status is gained or maintained due to false or misleading information, UDC reserves the right to retroactively assess all out-of-state charges for each semester/term affected.



## Office of Financial Aid

Building 39, A level

Current Students can Access their Student Account information online through their [My.UDC](#) portal.

The Office of Financial Aid's primary goal is to ensure that students who have been admitted to the university have access to the financial resources available to complete their education. UDC students receive financial aid each year from federal, state, university, and private sources in the form of loans, work-study, grants, and scholarships.

***All students are strongly encouraged to apply early for financial aid to avoid any last minute delays in their award package***

### What is Financial Aid?

Financial aid is a monetary resource that assists students with paying for the cost of attending the University. This may include tuition & fees, books & supplies, personal and transportation expenses. Types of financial aid available include grants, loans, scholarships or student employment. A grant or scholarship is a form of assistance that does not have to be repaid. A loan is a financial award that must be repaid upon graduation or after a student has ceased attending the University on at least a half-time basis (6 credit hours). Federal Work-Study is a financial award that requires a student to work and is paid bi-weekly.

### Eligibility for Federal Student Aid

To be determined as an eligible student for financial aid purposes, a student must meet each of the following requirements:

- Must be a citizen or eligible non-citizen of the United States.
- Must be accepted for admission to UDC and enrolled in an eligible degree or certificate program
- Must be at least sixteen years old and not a high school student.
- Must have earned a high school diploma or GED.
- If male, must be registered with Selective Service between the ages of 18 and 25. Male students born during or after 1960 must have registered with Selective Service prior to age 25. Students who did not register should visit [www.sss.gov](http://www.sss.gov) to determine registration and exemption requirements (even if 25 or older).
- Must not be in default on any student loan or owe a repayment of a federal grant.
- Must be enrolled in at least 6 credit hours (half time). Federal Pell Grant recipients may qualify on a less-than half-time basis.
- Must complete a Free Application for Federal Student Aid (FAFSA) and submit any additional verification documents as requested by Enrollment Services (Admissions or Financial Aid) before published deadlines.
- Must maintain Satisfactory Academic Progress, have a cumulative 2.0 GPA (3.0 for graduates), complete 67% of coursework taken and complete degree within 150% of the program.
- May not receive financial aid for more than 30 developmental course credits.
- May only receive the Federal Pell Grant for a maximum of 12 full-time semesters (if eligible).

### How to Apply for Financial Aid

1. You must complete the Free Application for Federal Student Aid (FAFSA) on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). **The UDC FAFSA School Code is 007015.** A pin number will be required by you (and your parent if you are dependent) to sign the FAFSA. A pin number may be obtained by applying for one at [www.pin.ed.gov](http://www.pin.ed.gov)
2. Once your FAFSA is processed you will receive a Student Aid Report (SAR). Please read carefully. If you are selected in a process called "Verification" you may be required to submit a copy of your Federal Tax Transcript (and for your parents if you are dependent) as well as a Verification Worksheet and other requested documents before you will be made an award offer.
3. Once you are admitted to UDC, check your My.UDC student portal via the UDC website at [www.udc.edu](http://www.udc.edu). You can check the status and/or your award package from your student portal.
4. Check your UDC email account. You will be electronically notified if additional documents are required to complete your file or to be notified of your award package.

***Hardcopy of financial aid notices will not be mailed via the postal service.***

### How Financial Need & Eligibility are determined

Eligibility for financial aid is based on the cost of attending UDC and the amount students and their families are expected to contribute toward the cost of attendance. The cost of attendance is derived using UDC costs and local and national cost-of-living data.

The expected family contribution (EFC) is determined by an analysis of the student's FAFSA using the student and parent income information.

A student's financial need is calculated by subtracting the EFC from the cost of attendance. Aid is packaged according to student need or to replace the family contribution if one is not available.



## **Types of Financial Aid available**

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### **Federal Pell Grant**

A need-based grant that is determined by completing the FAFSA. The amount will range from \$400 to \$5,550 per academic year depending on the student's enrollment status, cost of attendance, and EFC. Students attending less than half-time may be eligible for a less-than-half-time award in this grant program. Students may receive a Federal Pell Grant not to exceed 12 full-time semesters.

### **Federal Supplemental Opportunity Grant**

A need-based grant that is determined by completing the FAFSA. Priority consideration is given to Federal Pell Grant recipients that demonstrate the highest need. The amount varies not to exceed \$3,000 in one academic year. Funds are very limited in this program and are generally exhausted to applicants that have applied early for financial aid.

### **Federal Teach Grant**

Available to education majors with a 3.2 GPA or higher. Students must complete an online entrance interview explaining grant requirements and an agreement to serve. The award amount is \$4,000 per academic year. Please visit the Financial Aid Office for more information.

### **D.C. Leverage Education Assistance Partnership Grant (LEAP)**

This program has been defunded by Congress beginning with the 2012-13 Academic Year.

### **Federal Direct Student Loan Programs**

Students must first complete the FAFSA and be considered for other need-based aid prior to receiving a student loan award offer.

### **Federal Direct Subsidized Loan**

The amount you may borrow per year is based on your level of enrollment, financial need, and cost of attendance. "Subsidized" means the government pays the interest on your loan while you are in school.

### **Federal Direct Unsubsidized Loan**

Independent students may borrow between \$6,000 – \$7,000 based on their level of enrollment and cost of attendance. Dependent students may borrow up to \$2,000 per academic year.

"Unsubsidized" means you are responsible for paying the interest while in school and during your six month grace period after you leave school.

### **Federal Direct PLUS Loan**

Parent Loan for Undergraduate Students (PLUS) is available to parents of dependent students that wish to borrow up to their child's cost of education or for additional education expenses not covered by other forms of financial aid. A credit check may be required as part of the loan approval.

### **Federal Direct Graduate PLUS Loan**

Available to Graduate students that wish to borrow up to their cost of education or for additional education expenses not covered by other forms of financial aid. A credit check may be required as part of the loan approval.

### **UDC Scholarships**

A limited amount of Foundation and UDC Scholarships are available. Visit the financial aid pages of the UDC website at [www.udc.edu](http://www.udc.edu). Also, pursue private scholarships at [www.fastweb.com](http://www.fastweb.com).

### **Federal Work-study Program**

The Federal Workstudy Program (FWS) is available to students that wish to earn wages in a degree-related job to help assist with college living expenses. Students are paid biweekly or monthly and may obtain employment either on-campus or off-campus. Workstudy jobs pay at least the Federal minimum wage to students demonstrating need while in school and who possess usable skills for on-campus and off-campus positions. Students interested in seeking Federal College Workstudy must indicate an interest by completing the workstudy question on the FAFSA. Students may also apply in the Office of Financial Aid. Funds are limited and awarded on a first-come, first-serve basis

## **UDC Financial Aid Policy**

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Federal student aid recipients must follow a number of guidelines in order to receive and continue to receive financial assistance toward their education expenses. **UDC students are expected to read all policies and consumer disclosure requirements upon attendance at the University.**

A complete copy of the UDC Financial Aid Policies and Procedures Manual is available in the Office of Financial Aid. Students may also view the policies on the UDC website at [www.udc.edu](http://www.udc.edu).

### **Satisfactory Academic Progress (SAP) Policy**

Students who apply for financial aid at UDC are responsible for knowing and complying with the satisfactory academic progress policy. In summary, students must maintain a cumulative 2.0 GPA (3.0 for graduates), complete at least 67% of their attempted coursework and demonstrate academic progression to complete their program within 150% of the credit hour requirement to obtain the degree or certificate.

### **Return of Title IV Refund (R2T4) – For Aid Recipients that Stop Attending Classes**

Financial Aid Recipients that officially or unofficially withdraw from the University may owe a percentage or all of the financial aid they received back to the University and/or Federal Government.

For a complete copy and detail review of R2T4, SAP and other financial aid policies and consumer disclosure requirements, please visit the University website at [www.udc.edu](http://www.udc.edu) or the Office of Financial Aid.





## Office of Student Accounts

Current Students can Access their Student Account information online through their [MyUDC](#) portal.

Building 39, A level Phone: (202) 274-5168

The Office of Student Accounts provides the University of the District of Columbia community, specifically students enrolled in degree and credit earning programs, with accurate accounting of receipt and disbursement of funds. In addition, The Office of Student Accounts representatives develop, recommend, and implement policies and procedures that will expedite the financial registration of new and continuing students. They provide various payment options, collect financial obligations, and maintain student financial records. Office of Student Accounts representatives subscribe to the highest standards in customer service.

### Tuition and Fees\*

<b>Undergraduate Resident Tuition-</b>	\$276.00 per credit hour
<b>Undergraduate Metro Tuition -</b>	\$320.00 per credit hour
<b>Undergraduate Non-Resident Tuition -</b>	\$580.00 per credit hour
<b>Graduate Resident Tuition-</b>	\$438.00 per credit hour
<b>Graduate Metro Tuition-</b>	\$496.00 per credit hour
<b>Graduate Non-Resident Tuition -</b>	\$842.00 per credit hour
<b>Community College Resident Tuition-</b>	\$100.00 per credit hour
<b>Community College Metro Tuition -</b>	\$168.00 per credit hour
<b>Community College Non-Resident Tuition-</b>	\$283.00 per credit hour

*\*Tuition rates and fees may be increased or modified by the Board of Trustees without personal notification to students or applicants.*

### Flagship/Graduate Student Fees\*

*Activity Fee	\$35
*Athletic Fee	\$105
*Health Services Fee	\$25
*Technology Fee	\$50
*Student Center Fee	\$95
Application Fee Undergraduate-New, Transfer, and Readmitted	\$35
Application Fee Graduate-New, Transfer, and Readmitted	\$50
Application Fee (F1 Visas)	\$50
Change of Course Fee (Add/Drop)	\$10
Credit by Exam (Per Credit Hour)	\$50
Transcript Fee	\$5
Course Audit (Same cost as Tuition)	Varies
Duplicate I.D. Card Fee	\$ 15
Enrollment/Orientation Fee	\$ 100
Graduate Writing Proficiency Exam	\$ 50
Graduation/Commencement Fee	\$ 125
Laboratory Fee	\$ 50
Late Application Fee	\$ 100
Late Registration Fee	\$ 150
Return Check Fee	\$ 50
** Student Health Insurance Fee	Varies

### Community College Student Fees\*

Community College Fee**	\$30
Application Fee (Undergraduate - New, Transfer and Readmitted)	\$ 35
Application Fee (F1 Visas)	\$ 50
Change of Course Fee (Add/Drop)	\$ 10
Credit by Exam (Per Credit Hour)	\$ 50
Course Audit (Same cost as tuition)	(Varies)
Duplicate I.D. Card Fee	\$ 15
Enrollment/Orientation Fee	\$ 100
Graduation/Commencement Fee	\$ 125
Laboratory Fee	\$ 50
Late Application Fee	\$ 100
Late Registration Fee	\$ 150
Return Check Fee	\$ 50
Transcript Fee	\$ 5
*** Student Health Insurance Fee	(Varies)

\*Refunds apply to Tuition only. Student Fees are Non-Refundable.

\*\*Fees are required for every student each semester, including the summer term(s). Students enrolled in 1-9 credit hours pay \$30 per credit hour. Students enrolled in 10 or more credit hours pay a \$300 flat fee

\*\*\*Student health insurance rates are subject to change. Please contact MAK SIN at <http://www.maksin.com/udc.aspx> for up to date rates and insurance waivers)

### Auditing

Tuition for auditors (students enrolled in courses on a non-credit basis) is the same as tuition for regular students.

### Methods of Payment

Tuition and fees are due and payable at the time of registration. If tuition and fees are not paid by the close of business the day of registration, courses will be dropped.

### Acceptable forms of payment include:

**Cash, certified check, money order, personal checks** (provided you have not previously presented an uncollectible check to the University and you have a valid picture identification for the maker of the check) **or credit cards (MasterCard, Visa or Discover).**

### Deferred payments are available for the following students:

- **Financial Aid Recipients.** Students who have applied for financial aid and have award amounts posted to their student record. Students registering with estimated financial aid awards will be responsible for the outstanding balances on their accounts if awards are later adjusted and or denied.
- **Sponsored Students** who have training forms or agreements from a sponsor, organization or employer requesting deferred billing from the University (i.e., Agency Billing).
- **Tuition Remission.** Tuition may be remitted for all full-time employees of the University, their spouses and dependent children. Contact the Office of Human Resources for details and applicable forms.



### ***Tuition Management System Enrollment***

Students may make monthly installment payments. Tuition Management Systems (TMS) is contracted by the University to assist students with financial need. Please note the following terms:

- New students who wish to enroll in the TMS Installment Program must enroll during official registration period(s).
- Continuing students who wish to enroll in the TMS Installment Plan can enroll during continuing student registration period(s).

#### ***The first payment of the TMS Installment Plan includes:***

- 1/3 of tuition
- All mandatory and specialized fees
- A \$35.00 TMS enrollment fee.

**Note:** The University does not offer the TMS Installment Plan during the summer term(s).

### ***Failure to Pay***

***Failure to pay the entire balance on a student account shall result in the following:***

- The University shall withhold the release of grades or credits and deny the student permission to register for subsequent sessions and all other student privileges.
- Accounts not paid by end of term will be sent to a third party collection agency. The student will be subject liability for all associated collection costs

### ***Other Payment Information:***

- Retain all receipts as confirmation of payments.
- Personal checks for payment of prior balances will be accepted; however, there is a 5 business day delay for further services until the check has cleared the bank for payment.
- Classes will be dropped immediately upon notification from the bank of all stopped check payments and closed accounts. **The University will not notify you of this action.**
- Student bars will be removed when the student's account is satisfied of all outstanding indebtedness.

### ***Fee and Charge Narrative***

***The Activity Fee*** of \$35 is charged to each student every academic term, including summer. The Activity Fee is used by the Undergraduate and Graduate Student Government associations for providing services to students, organizing social and cultural activities, and publishing the student newspaper and publications.

***The Athletic Fee*** of \$105 is charged to each student every academic term, including summer. The Athletic Fee helps to defray the costs of intercollegiate athletic activities. Admission to all UDC athletic events and other activities is open to UDC students upon presentation of the valid student identification card.

***Tuition Management System Enrollment Fee*** is charged to each student that applies for the University's tuition installment plan.

***The Change of Course Fee*** is charged for each add/drop transaction during the late registration period at the beginning of each academic term. For example, if following the student's initial registration, the student elects to add another course which conflicts with a course on the schedule, adds the new course and drops or changes sections on the other course, the student's account will be charged \$10 for each course that is added to the schedule or dropped from the schedule, in addition to the increase in tuition charges, if any.

***Comprehensive Laboratory Fee*** of \$50 is charged whenever a student registers for a class with a laboratory. It is charged once each semester for each laboratory class. Laboratory classes and fees are indicated in the official class schedule.

***The Credit by Special Examination Fee*** is charged to any student seeking examinations in lieu of enrollment in specific courses. Once the student receives per-mission to be examined, a fee of \$50 per credit hour, plus the tuition, is charged. The examination cannot be administered prior to payment of the fee and tuition.

***The Duplicate I.D. Card Fee*** is charged when a replacement I.D. card is requested. The initial I.D. card is issued without charge when a new student registers at the University.

***The Graduation Fee*** is assessed when the student files the Application for Graduation in the final semester of study. This fee covers expenses associated with commencement activities.

***The Health Services Fee*** of \$25 is charged each student every academic term, including summer. The Health Services Fee helps to defray the cost of the University Health Services.

***The Late Registration Fee*** is added to the student's charges for tuition and fees whenever a registration takes place after the prescribed registration dates.

***The Returned Check Fee*** is assessed to the student upon return of a check unpaid by the bank. This fee covers the expense of processing the check.

***Student Health Insurance*** is required of all students. Students unable to show proof of coverage from other sources must purchase a policy through the University. Student health insurance rates are subject to change.

***The Technology Fee*** of \$50 is charged to each student every academic term, including summer. The technology fee is used to subsidize the cost of maintaining technology at the University.

***The Transcript Fee*** is charged for the issuance of a copy of the student academic record. The first transcript requested is free. A fee of \$5.00 is charged for each additional transcript.

### ***Senior Citizens***

Tuition and fees normally required for students admitted to the University will be waived for qualifying senior citizens (D.C. residents 65 years of age or older), except in cases where the applicant matriculates in a degree program. Matriculating senior citizens shall pay one-half the amount established for students within their category unless otherwise deferred or waived by specific Board of Trustees authority. Qualifying senior citizens should contact the UDC Institute of Gerontology at (202) 274-6616 for additional information.



## **Refund Policy**

Students who withdraw during the regular academic year from one or more classes, resulting in a reduction of the tuition charged, and students withdrawing from the University are entitled to a refund of tuition according to the following schedule:

### **Spring/Fall Terms**

Withdrawal during Week 1	100%
Withdrawal during Week 2	80%
Withdrawal during Week 3	60%
Withdrawal during Week 4	40%
Withdrawal during Week 5	20%
No refund after Week 5	

### **Summer Terms**

#### **First Six-Week Session**

Withdrawal before classes begin thru 4th day	100%
Withdrawal during 5th thru 7th day	60%
Withdrawal during 8th or 10th day	20%
No refund after 10th day	

#### **Second Six-Week Session**

Withdrawals before classes begin thru 4th day	100%
Withdrawal during 5th thru 7th day	60%
Withdrawal during 8th or 10th day	20%
No refund after 10th day	

*\*Refunds apply to Tuition only. Student Fees are Non-Refundable.*

## **Financial Aid Refund Checks**

A Financial Aid refund check will be mailed approximately two weeks after the credit balance appears on the student account. Credit balances are not authorized until all requirements for the award package have been met and student attendance in class has been verified after the 100% refund period.

Refund checks are mailed to the student's official address on file in the Office of the Registrar. Checks returned to the University due to an incorrect address will be available in the Cashier's Office.

## **Remitted Tuition**

The University will provide full remitted tuition to all full-time permanent employees, their spouses, and dependent children who wish to enroll in courses at the University. However, such individuals are subject to University regulations, including admission, registration, and academic standing, and must pay all fees previously listed.

UDC dependents and spouses of employee students, student government and other UDC student tuition remission recipients may have their tuition remission reduced or eliminated if receiving other grant or scholarship assistance to pay for their cost of tuition.



## Academic Information

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Presented here are summaries of academic policies and procedures which will apply to students during their undergraduate years at UDC. Institutional policies may change between catalog publication dates; students are encouraged to consult with their academic advisor whenever appropriate. Also, students with questions should request information from their academic department, the dean's office of their college, and the various administrative offices on campus.

Faculty play an integral part in the individual learning of each student. Faculty value each individual student and are at the core of successful student learning, creating a critical learning environment and challenging students through critical thinking, problem solving, and creativity. Once a student declares a major, the student will be enrolled in one of the undergraduate degree granting colleges. Each college has specific academic departments and/or program areas. Please note that course work in one's major field normally makes up only a portion of the total credits required for graduation. Thus, through general education requirements, interdisciplinary courses and electives, students can take courses in departments outside their home college.

UDC is dedicated to ongoing assessments of student learning and satisfaction at all levels and in all programs. Assessment is essential in order for the university to improve educational programs and the experiences of students. Students are urged to respond positively when asked to participate in assessment activities. In addition, students are encouraged to collaborate in the planning and development of assessment activities and to make suggestions for improvements.

Ultimately, the student is responsible for meeting degree requirements as listed in the appropriate catalog. Moreover, every student is expected to be conscientious in complying with the information contained in this catalog, be aware of the Schedule of Courses for each term, and to register each semester during the designated time set forth in the academic calendar. University policy requires all degree seeking students to be advised, whether or not a major has been declared. Students must contact their assigned academic advisor or faculty advisor for the hold to be lifted.

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### Academic Advising

Academic advising is a vital element of undergraduate education at UDC. The academic advising process assists students to take responsibility for developing meaningful educational plans which are compatible with their potential and with their career and life goals. It is a process which involves both students and academic advisors. The sharing of information occurs in a caring and comfortable environment which promotes responsible and appropriate academic choices. Through a quality advising process, academic advisors strive to facilitate a successful academic experience for students.

### Advising Services

Academic Advising from all levels will assist with the following:

**Plan of Study:** The Academic Advisor will work with the student to build a Plan of Study. The Plan provides the student with a map indicating the time it will take to complete a plan of study based upon whether the student intends to pursue full-time or part-time studies.

**Degree Checklist:** The Academic Advisor will help the student monitor academic progress using the "degree checklist" which will include a list of required courses needed to complete a major. Note: the checklist does not constitute a formal degree audit, rather, it is one tool for tracking the student's objectives and intentions to pursue a major, minor, internship, field experiences, study abroad, and other specialized academic opportunities, and should also be reflected in the Plan of Study.

**Registration and Enrollment:** New students will be assisted with registration during New Student Orientation. Advisors will conduct a meeting with all students during the Continuing-Student Advisement period to discuss course selections, course load, and to ensure that choices are consistent with university, general education, degree, and graduation requirements. The Continuing-Student Advisement period is a time in the semester when all students are advised on the courses required for the next semester and have the advising hold lifted to enable registration.

### Academic Standing and Satisfactory Academic Progress:

Advisors assist with keeping students on track with good academic standing and recommend appropriate academic supports, so that they continue to meet good academic standing and satisfactory academic progress.

**Referrals and Collaboration:** Advisors and faculty make appropriate referrals concerning academic, career, financial, student life, and other kinds of student support services. Advisors and Faculty are familiar with all General Education/University-Wide requirements, and are able to assist students in the registration process to complete these requirements.

**Career Planning:** Faculty Advisors are an essential resource to provide students with career pathway and competency information, tools, and resources to help them map their academic interests to career opportunities and to understand the education and skills requirements for jobs in the 21st century. Advisors will help connect students with the University's Career and Professional Development Center, internship opportunities, service learning programs, program alumni, and other resources to assist in advancing their career interests.

### Early Alert for Associate's and Bachelor's Degree Students:

The Student Success Center and the Academic Advising Center use an early alert system, which allows tracking of student academic progress. The system facilitates communication between faculty, academic advisors, university support services, and students who show signs that they need additional academic support.

The goals of the early alert system are to reach students who need additional help as early in the term as possible, connect them to college resources to resolve their academic issues, help students to maintain or improve their GPA, and improve student retention rates. At UDC, we want to work closely with students who may be in a tenuous situation, meaning at risk of losing their good academic status and satisfactory academic progress. In order to provide additional learning support, we work to identify students who may have poor attendance, are continually late for class or leave early, have poor quiz/test grades, are missing assignments or, in the opinion of the instructor, have shown evidence that they are unlikely to be successful in a given course.



## ***New Student Advising***

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Once admitted to the university, new students seeking an undergraduate degree are required to attend New Student Orientation. Prior to New Student Orientation, it is recommended that new students review the university catalog.

New students will receive an initial advising session for their selected major and a Plan of Study guide. Once the advising portion of New Student Orientation is completed the Advising Hold will be removed, and if eligible, the student will be able to register for classes following the advising session.

***Students who do not attend New Student Orientation may experience delays with the course registration process.***

## ***Student Assignment to an Advisor***

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Students seeking an undergraduate degree at UDC will be assigned to an advisor based on where they are along the path toward completing their degree. Students are required to see their advisor each semester to ensure that degree requirements are being met and to have the advising hold lifted to enable registration.

***All students will have an advising hold that must be lifted to enable registration.***

Establishing a working relationship with the advisor is essential to student success. Thus, it is strongly recommended that students first consult with their advisor about issues or concerns that could potentially be a barrier to success prior to seeking alternative resources of assistance.

## ***Associate's Degree Seeking Students***

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If a student is pursuing an associate's degree, the student will have an advisor in the Student Success Center, a division of the UDC-Community College.

## ***Bachelor's Degree Seeking Students***

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Upon enrollment, students pursuing a bachelor's degree with fewer than 60 credit hours will have an assigned academic advisor in the **Academic Advising Center (AAC)** and an identified Faculty Advisors from their program of study. Academic Advisors from the AAC will assist students with pragmatic and specific steps to navigate course registration procedures and campus policies, and guide students to appropriate resources. Until a bachelor degree student completes 60 credit hours their advisor will be assigned by the Academic Advising Center.

**Faculty advisors** facilitate student learning through an exchange of ideas allowing the student to express, support, and discuss individual goals and ideas and in which the faculty advisor guides the learner towards the completion of a degree in the program of study. Faculty advisors will also guide students in developing strategies for critical learning, program specific requirements and mentoring in the field of study. Both the Academic Advisors and Faculty Advisors facilitate a link for students to become 21st century learners, responsible citizens, critical thinkers, and liberally educated persons. Each college has specific guidelines for *Faculty Advising* and use this system to help students decide which courses to take, stay on track with good academic standing and satisfactory academic progress, and move toward completing the degree in a timely fashion.

## ***Graduate Degree***

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All graduate students are assigned to a graduate advisor by the department in which they study.

## ***Undeclared Undergraduate Students***

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When choosing a major program of study, students are encouraged to consider their interests, abilities, work and/or volunteer experiences. Also, they are encouraged to discuss their educational and career goals with their academic advisor, faculty, and administrators. UDC is committed to helping students to determine a suitable major program of study for all enrolled at the institution.

Student's seeking an associate's degree must declare a major after successfully completing 12-15 college level credit hours or two full semesters.

Student's seeking a bachelor's degree must declare a major by the time they have successfully completed 60 credit hours.

Students who remain undeclared have an opportunity to take courses in various majors, and take advantage of interest inventories and additional career resources available from academic advisors, career counselors, and other faculty and staff at UDC in order to determine a major. Students are required to discuss their intentions to declare a major with their present academic advisor and the chair of the program of interest. Students must complete a Change of Major form, available from the Office of the Registrar, have the form signed by the appropriate advisors and administrators, and submit it to the Office of the Registrar.

## **Undeclared Associate's Degree Students:**

All UDC Community College students who are undeclared degree majors will receive academic advising from the **Student Success Center**.

## **Undeclared Bachelor's Degree Students:**

All UDC students who are undeclared bachelor's degree majors will receive academic advising from the **Academic Advising Center**. Undeclared students at the bachelor's level who have an interest in a specific major may declare as undeclared in a specific college. Otherwise, all undeclared students at the bachelor's level will be placed as an undeclared student in the College of Arts and Sciences.

## **Non-Degree Students (Special Undergraduate)**

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Students not seeking a degree are not required to see an academic counselor. Non-Degree students will be contacted via electronic e-mail verifying eligibility to register.

- **Non-Degree** students taking courses in the Community College should contact the **UDC-CC Student Success Center** for any assistance.
- **Non-Degree** students taking undergraduate courses at the Bachelor's degree level should contact the **Academic Advising Center** for any assistance.

## **Current Students**

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Current Students can Access their [My.UDC](#) portal for current directory and academic calendar information.

***Prospective and new students can access current directory and academic calendar information on the UDC website:***

## **University Directory**

The University directory can be accessed on line at: <http://directory.udc.edu/>

It gives addresses and telephone numbers of University offices faculty, and staff members.

## **Academic Calendar**

The University Calendar can be accessed on line at: [http://www.udc.edu/registrar/academic\\_calendars](http://www.udc.edu/registrar/academic_calendars)



## Transfer Student Advising Process

Once admitted to the university, new transfer students seeking an undergraduate degree are required to attend New Student Orientation. During New Student Orientation, transfer students will be oriented to specific administrative processes to complete their matriculation and course registration. **Students who do not attend New Student Orientation may experience delays with the course registration process.**

Students granted credit for course work will receive a credit evaluation report up to 21 business days following the receipt of the **Student Confirmation To Enroll Form**. The evaluation reports will be sent to students by either electronic mail or standard U.S. postal mail. Transcripts are received and processed by UDC's Office of Admissions. Transfer students will meet their advisor at the New Student Orientation. **Students who are admitted late may experience delays.**

The Transcript Evaluation report lists courses that **can be** transferred based upon the University's stated criteria. This report will detail what general education requirements, if any, that are met at UDC. The report will also detail a list of courses that **may be applied** to the student's program of study.

Transfer students must meet a program Chair, Director, or Faculty Advisor appointed by the students' program of study to have possible degree applicable transfer credits evaluated.

The program Chair, Director, or Faculty Advisor appointed by the students' program of study will determine which courses apply to the students' program of study and the University's General Education requirements. It is possible that some prior course work will not meet UDC's general education course requirements.

### Transfer Credit Evaluation Reports and Academic Advising

General Education credits are coded on Transfer Credit Reports with a subject code of "IGED" and the equivalent General Education course name.

General Education Courses	Possible Equivalencies Courses
Foundation Writing I <b>IGED 110</b>	<ul style="list-style-type: none"> <li>Composition</li> <li>Rhetoric</li> <li>And other writing courses meeting the General Education outcomes for Foundation Writing I</li> </ul>
Foundation Writing II <b>IGED 111</b>	<ul style="list-style-type: none"> <li>Composition</li> <li>Rhetoric</li> <li>And other writing courses meeting the General Education outcomes for Foundation Writing II</li> </ul>
Foundation Quantitative Reasoning I <b>IGED120</b>	<ul style="list-style-type: none"> <li>Mathematics courses meeting the outcomes for Foundation Quantitative Reasoning I</li> </ul>
Discovery Quantitative Reasoning II <b>IGED 220</b>	<ul style="list-style-type: none"> <li>Mathematics courses meeting the outcomes for Foundation Quantitative Reasoning II</li> </ul>
Discovery Technology <b>IGED 250</b>	<ul style="list-style-type: none"> <li>Any course meeting the outcomes for Discovery Technology</li> </ul>
Discovery Science + Lab <b>IGED 260</b>	<ul style="list-style-type: none"> <li>Any laboratory course in the physical or biological sciences meeting the General Education outcomes for Discovery Science</li> </ul>
Foundation Oral Communications <b>IGED 130</b>	<ul style="list-style-type: none"> <li>Any course meeting the General Education outcomes for Foundations of Oral Communications.</li> </ul>

Students who wish to pursue a bachelor's degree must complete the following courses from UDC: **Discovery Writing, Foundation Ethics, Discovery Diversity, Discovery Civics, a writing intensive course in the major, and the Frontier Capstone Project.** Please see the section on The General Education and University Wide Requirements.

Required General Education Courses at the Bachelors Degree level	Course #
Foundation Ethics	IGED 140
Discovery Writing	IGED 210
Discovery Diversity	IGED 270
Discovery Civics	IGED 280
Writing Intensive course within major	
Frontier Capstone	IGED 391-392

### Please Note:

All transfer credits are evaluated by a Transfer Student Counselor in the Office of Recruitment and Admission. Academic departments reserve the right to determine those credits that will be used to satisfy degree requirements. ***Please refer to UDC's Transfer credit policy for detailed information.***

### Transition Advisor

#### Additional Assistance for Bachelor Degree Transfer students:

Transfer students pursuing a bachelor's degree, will encounter many new experiences at the UDC. Transition Advisors are available to support transfer students to ensure that they are getting the support they need as new students.

Appointments with a Transition Advisor are **student-directed**. This means that transfer students can bring **any issues** to discuss to a meeting. The Transition Advisor's role is to help the student make appropriate referrals concerning the transfer process and to navigate general registration, academic, and student support services. This program is offered by the **Academic Advising Center**. The Transition Advisor is not a primary academic advisor.

### Transferring in with a Degree

#### Bachelor's Degree-bearing Student

If a student possesses a bachelor's degree from an accredited institution and wishes to pursue a second bachelor's degree at UDC, the student is exempt from General Education requirements; however, the student must meet all program requirements for the bachelor's degree existing at the time of admission to the program.

#### Associate's Degree-bearing Student

If the student possesses an associate's degree from an accredited college or university and wishes to pursue a bachelor's degree, the student must complete the following courses at UDC: Discovery Writing, Foundation Ethics, Discovery Diversity, Discovery Civics, a writing intensive course in the major, and the Frontier Capstone Project. Please refer to the section on "The General Education and University Wide Requirements."



## Transitioning

Degree-seeking students in the Community College are guaranteed general admission to a bachelor's degree program at any point during their studies if specific requirements are met (although specialized admissions requirements may apply to certain programs).

Bachelor's degree-seeking students who are in good financial standing and not facing suspension or dismissal from UDC are eligible to transition to the UDC Community College.

Students wishing to change a major course of study must obtain the approval of the new department chairperson as well as the release of the former department chairperson. Change of Major Forms should be submitted to the Office of the Registrar, Administration Building, A level.

Eligible students may submit an application only for the next semester only. Students cannot begin registering for courses at the new college for the next semester until the Change of Major Request Form has been processed.

Students will continue to pay the current tuition rates and are bound by all academic policies of the college they are attending unless and until the transition is approved and they are officially enrolled in the next semester in their new college, at which time they are bound by all policies and tuition rates of the new college.

### **Requirements**

To transition from the Community College to a bachelors' degree program, students must have an overall GPA of at least a 2.0, and must have completed at least one 100-level or higher course in English Composition and Math with at least a "C" in both courses. (Developmental courses cannot be applied toward meeting bachelor's degree credit requirements.)

### **Please Note:**

- Students can log into my.UDC.edu to check the status of the transition process after the Change of Major Form has been submitted to the Registrars office.
- Students transitioning to a bachelor's degree program are encouraged to attend New Student Orientation for bachelor's degree students. Information on specific dates is available on the UDC website under the New Student Orientation site.
- Grades earned in an associate's-degree program are included in GPA calculations for a bachelor's degree and vice versa.
- UDC-Community College graduates pursuing a bachelor's degree must complete the following courses at the Bachelors' level\* : *Discover Writing, Foundation Ethics, Discovery Diversity, Discovery Civics, a writing intensive course in the major, and the Frontier Capstone Project.*

***\*Students who wish to appeal this policy must submit a written request to the Director of the General Education. A Transition Advisor from the Academic Advising Center can assist with this process.***

### ***Transition Advisor***

Additional Assistance for transitioning students:

Transition Advisors are available to support transitioning students to ensure that they are getting the support they need and to navigate the process.

Appointments with a Transition Advisor are student-directed. This means that transitioning students can bring any issues to discuss to a meeting. The Transition Advisor's role is to help the student make appropriate referrals concerning the transition process and to navigate general registration, academic, and student support services. This program is offered by the Academic Advising Center. The Transition Advisor is not a primary academic advisor.





## Registration

Building 39, A level Phone: (202) 274-6200

### Office of the Registrar

The Office of the Registrar supports teaching and learning at UDC by maintaining the integrity of academic records, policies, and the student information system from application to degree conferral and into perpetuity. The Office is responsible for consistently implementing District, Federal, and University policies and procedures, adhering to the Family Educational Rights and Privacy Act (FERPA) standards, the American Association of Collegiate Registrars and Admissions Officers (AACRAO) guidelines, maintaining institutional credibility through the proper maintenance of student biographic and academic records, and certifying students for graduation. Services provided by the Registrar's Office include registration and scheduling adjustments, transcript maintenance and appropriate distribution, enrollment and verification, residency audit, and dissemination and maintenance of all student demographic data and directories.

### Registration

Registration information and other relevant class announcements are published in the online **Registration Guide** for each academic semester or summer term. Continuing Students can access registration information at [my.udc.edu](http://my.udc.edu). Only students who are officially enrolled may attend classes, take examinations, and receive academic credit for instruction.

### Student Identification Cards

New students are issued an identification card at the time of their initial registration. This ID card is required for access to all University services and must be presented on request to security personnel in University buildings. Students must also present Identification Cards when visiting Consortium schools. Student Identification Cards are issued by the UDC Office of Public Safety.

## GRADUATION

### Application Requirements for All Students

Students who expect to complete their academic requirements during any given semester should submit an Application for Graduation to the Office of the Registrar the semester before they expect to graduate or no later than the deadline date indicated in the Academic Calendar, and pay the required graduation fee in the Cashier's Office; however, the submission of an application does not guarantee graduation. Only those students who have met ALL academic requirements and who have satisfied ALL financial obligations will be cleared for graduation. In the event that a student does not complete graduation requirements in the designated term, a new Application for Graduation must be submitted for the term when all requirements will be met; however, no additional fee is required. Students are strongly encouraged to meet with their academic advisors each semester to ensure that academic requirements are being met for the appropriate degree, and that they are on target for graduation. Currently, the diploma replacement fee is \$50.00.

### Satisfying the Degree Requirements

Undergraduate courses (courses numbered below 500) may not be used to satisfy graduate degree requirements. Similarly, graduate courses (courses numbered 500 and above) may not be used to satisfy bachelor's or associate's degree requirements.

### Graduation Requirements: Associate Degree

All students must meet the following requirements to earn an associate's degree from UDC:

**Residency:** The University confers the associate's degree upon students who complete the last 15 semester credit hours of study in residence at the University of the Columbia. Additionally, students must attain a minimum cumulative grade point average of 2.00.

Listed below are the university-wide requirements needed to complete an associate's degree at the University of the District of Columbia Community College. Please consult with your academic advisor to confirm course selections and major requirements for your chosen degree.

A minimum of 60 credit hours of college-level courses is required, including specific courses identified in the departmental program of study and the applicable University-wide requirements.

Once admitted and registered as a student at the University of the District of Columbia Community College, it is expected that the student will be enrolled every semester until the student has completed the degree objective. Any student who is not continuously enrolled, exclusive of the summer term, is subject to the requirements in effect at the time of re-enrollment.

### Community College Honors

If you are pursuing a two-year degree, you are eligible to graduate with honors if you have received 60 percent of the credits earned for graduation at the University of the District of Columbia, and earned a 3.30 cumulative grade point average in all attempted hours.

### Associate Degree General Education Requirements:

Specific University-wide requirements for all two-year programs are as follows:

*Note: University-wide Requirements are under review and are subject to change.*

English Comp I ENGL-111C *	3 credit hours
English Comp II ENGL-112C *	3 credit hours
Social Science**	3 credit hours
Mathematics***	6 credit hours
Natural Science****	3 credit hours

English Composition I must be taken prior to English Composition II, not concurrently.

\*\*Select courses from Psychology, Sociology, Economics, History, Social Work, Geography, and Political Science. Students enrolled in two-year technology programs may elect to take one three-credit-hour course in philosophy to satisfy this requirement.

\*\*\*Only Mathematics courses numbered 100 and above satisfy this requirement.

\*\*\*\*Lab courses only. Natural science lecture (3 credit hours) and lab (1 credit hour) must be taken concurrently.



### **Graduation Requirements: Bachelor Degree**

All students must meet the following requirements to earn a bachelor's degree from the University of the District of Columbia:

#### ***Time to Degree Completion***

All students in bachelor's degree programs are expected to complete all graduation requirements within eight calendar years from the date of first enrollment. If the student fails to complete the degree within the prescribed period, the student may become subject to new requirements, which have been established since first admitted into the program of study.

#### ***Satisfying the Bachelor's Degree Requirements***

The bachelor's degree programs require a minimum of 120 credit hours, including specific courses identified in the departmental program of study and the applicable General Education requirements. Many departmental programs of study require more than the minimum hours designated above. Students should consult this catalog and their advisors when determining graduation eligibility. Only college-level courses numbered 100 and above are counted in the GPA and total credits earned.

#### ***Residency***

The University confers the bachelor's degree upon students who complete the last 30 semester credit hours of study in residence at UDC. Additionally, students must complete all General Education requirements, as well as degree requirements, and attain a minimum cumulative grade point average of 2.00.

#### ***The General Education Requirements***

Students entering the University in fall 2010 or later are required to complete 13 courses for a total of 40 credits (37 credits within the General Education Program, plus 3 required credits in a writing intensive course in the major). Students are required to complete the General Education core in a developmental sequence. The typical four-year prototype for the General Education curriculum is as follows, with the number of credit hours for each course in parentheses. Check with specific programs to determine any variance from the typical sequencing.

Semester	Course #	General Education Courses	Credits
1st	IGED 110	Foundation Writing I*	3
	IGED 120	Foundation Quantitative Reasoning*	3
	IGED 130	Foundation Oral Communications	3
2nd	IGED 111	Foundation Writing II	3
	IGED 220	Discovery Quantitative Reasoning**	3
3rd	IGED 140	Foundation Ethics	3
	IGED 250	Discovery Technology	3
	IGED 210	Discovery Writing	3
4th	IGED 260	Discovery Science + Lab **	4
	IGED 270	Discovery Diversity	3
5th	IGED 280	Discovery Civics	3
7th & 8th	IGED 391	Frontier Capstone I & II	3

Writing Intensive Course in your Major. Please consult with your departmental advisor for details. 3

***Taken upon completion of Discovery Writing.***

***\* Students may place out of Foundation Writing I and Foundation Quantitative Reasoning with test credit.***

***\*\* Students in disciplines that require higher level and extended math and science study (such as Mathematics, Computer Science, Chemistry, and Physics) may be able to substitute courses within their major for the Discovery Quantitative Reasoning and/or Discovery Science courses. .***

Undergraduate Requirement: Once admitted and registered as a student at UDC, it is expected that the student will be enrolled every semester until the student has completed the degree objective. Any student, who is not continuously enrolled, exclusive of the summer term, is subject to the requirements in effect at the time of re-enrollment.

Students who enrolled in the University before fall 2010 are expected to complete the "university-wide" requirements specified in the course catalog governing their program of study.

#### ***University Honors***

To graduate with University honors, undergraduate students pursuing a bachelor's degree must have received 60 percent of the credits earned for graduation at the University of the District of Columbia. The honors systems for bachelor's students are:

<b>3.8 or above</b>	<b>In all hours attempted</b>	<b>summa cum laude</b>
<b>3.60</b>	<b>In all hours attempted</b>	<b>magna cum laude</b>
<b>3.30</b>	<b>In all hours attempted</b>	<b>cum laude</b>

#### ***Granting Degrees and Commencement***

Degrees are granted at the close of each semester. Annual commencement convocations are held at the end of the spring semester. Only students who have met all requirements academic and financial for graduation will be permitted to participate in commencement exercises.

#### ***Second-Degree Candidates***

Students who have a bachelor's degree from an accredited institution and wish to pursue a second bachelor's degree at UDC are exempt from General Education Requirements; however, these students must meet all other program requirements for the bachelor's degree existing at the time that they were admitted to the program.

Students who have an associate's degree from an accredited college or university and wish to pursue a bachelor's degree must meet the General Education Requirements and program requirements for the bachelor's degree existing at the time they were admitted to the program. Also, they must complete the following (or equivalent) courses from UDC: Discovery Writing, Foundation Ethics, Discovery Diversity, Discovery Civics, and the Frontier Capstone Project. Please refer to the section on The General Education and University Wide Requirements.



### ***Student Address Verification and Communication Expectations***

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#### **Collection of Student Address Information**

It is the University's policy to collect contact information on all students that is accurate and current and which includes local and home addresses, telephone contacts, and emergency contact information. The University requires all students to report, and update as necessary, current local and home address information. The University adopts this policy for the purposes of collecting and maintaining more accurate contact information for students' correspondence and notifications. Failure to report, and update as necessary, accurate local and home address information may impede course registration or the ability to access my.udc.edu.

#### **Change of Personal and Address Information**

Students are responsible for notifying the University of changes in name, address, or contact information. All changes to personal information must be made by submitting a Change of Name or Address form at the Office of the Registrar, Bldg.39 Level A. Changes in name, Social Security number, or birth date must be accompanied by an original copy of the following: birth certificate, court order, marriage certificate, Social Security card, passport, lease, or certified state tax form, verifying the appropriate information at the time the request is made. Forms that are returned to the University will result in a hold on the student's account. The Office of the Registrar updates Student Personal information for currently enrolled students only. Alumni should send their updated contact information to the Office of Alumni Relations, University of the District of Columbia, Building 39, Room 119, 4200 Connecticut Ave, NW, Washington, DC, 20008. Alumni can also update telephone contact information by calling the Office of Alumni Relations at 202-274-5206.

#### **Email, Technology, and Communication**

Students must obtain and use an UDC email account. All communications with faculty members, advisors, administrative offices, and other campus offices will be made via this account. Failure to use the student UDC e-mail account may impede course registration or the ability to access my.udc.edu. In addition, if students do not register and use their UDC email account, they will not be able to use the University's primary course management system (Blackboard) to complete course activities. Also, students will be required to use My.UDC.edu, the university's web portal, to access a host of academic services and functions. Lastly, students are expected to use UDC's website, www.udc.edu.

#### **Declaration and Change of Major**

Undergraduate students who desire to earn a degree at UDC must officially declare a major. To change a major course of study, students must obtain the approval of the department chair of the new major and a release from the chair of the former department. This approval must be filed with the Office of the Registrar. Students should be aware that the time required to obtain a degree may be lengthened as the result of a change of major; therefore, they should change their major only after consulting an academic advisor, as they are subject to the program requirements in effect at the time that they changed the major.

#### **Classification of Associate Degree Students**

A student who has been admitted to the University in pursuit of an associate's degree is classified for the purposes of academic rank according to the number of credit hours completed as follows:

**Freshman: less than 30 credit hours**

**Sophomore: at least 30 credit hours**

*Junior and Senior classifications do not pertain to students pursuing Associate degree programs.*

#### **Classification of Bachelor's Degree Students**

Students who have been admitted to the University to pursue a bachelor's degree are classified for the purposes of academic rank according to the number of credit hours completed as follows.

**Freshman: less than 30 credit hours**

**Sophomore: at least 30 but less than 60 credit hours**

**Junior: at least 60 but less than, 90 credit hours**

**Senior: 90 or more credit hours.**

#### **Enrollment Status:**

The University assigns full-time versus part-time status to assess whether students are meeting minimum course load requirements and maintaining satisfactory academic progress. Enrollment status also determines financial aid eligibility. Note: To be eligible for maximum benefits from the financial aid programs, veteran's benefits, Social Security benefits and other student benefit programs, students may need to be full-time.

#### **Full-Time Status Defined**

For students to be considered a full-time undergraduate, they must be enrolled in at least 12 credit hours of study. Students who carry fewer than 12 credit hours are classified as part-time. If they enroll in a summer session as an undergraduate student for at least six credit hours, they are classified as full-time.

For students to be considered a full-time graduate, they must be enrolled in at least 9 credit hours. If they enroll in fewer than 9 credit hours, they are classified as part-time. Students who enroll in a summer session as a graduate student for at least six credit hours are classified as full-time.



## Course Registration Policies

### **Course Load Limitations**

#### **Undergraduate Students**

Undergraduate students can take a maximum course load of 18 credit hours. If students are in good academic standing, and with the approval of the dean of the college in which they are enrolled, they may take a maximum of 21 credit hours within a semester. Students on academic probation have course load limitations until reinstated to good academic standing.

#### **Graduate Students**

Graduate students can take the maximum course load of 12 credit hours. Students on academic probation are limited to 6 semester hours or less. In applying the course load limitations, the University counts audited courses as a part of the student's course load; however, for regulations that require full-time status, audited courses are not counted as part of the course load.

### **Add/Drop Procedures**

Students who find it necessary to change their schedule may do so online, or they may visit their academic advisor for assistance during the official Change of Program period. (Check the dates in the academic calendar.) Students will be charged an add/drop fee for each successful transaction after the regular registration period has ended. A course may be added only during the official Add/Drop period.

If a student officially drops credit hours during the designated Add/Drop period, they are entitled to receive a refund if the change leaves a balance less than the original amount. Changes made after the designated period of Add/Drop may not qualify for full refund. (See Refund Policy).

*Please note: when a course is closed the student must obtain permission from the chair of the department offering the course. Once approved, the chairperson will place the student in the course.*

### **Withdrawal from a Course**

Students may officially withdraw from a course without penalty up to five weeks prior to the beginning of the scheduled final examination. Students should consult the current academic calendar for the specific dates. Once the withdrawal is processed in the Office of the Registrar, a grade of "W" will be entered on the student's transcript. If a student stops attending class, or you fail to file the Change of Program/Withdrawal form by the posted deadline date, the student may receive a failing grade. If applying for or receiving any form of financial aid, the student must contact the Financial Aid Office before withdrawing from any course since withdrawals may affect eligibility for current or future aid.

### **TOTAL Withdrawal from the University**

Students may withdraw totally from all classes up to and including the last day of classes prior to the beginning of the final examination period. Students who wish to withdraw from the University after the published course withdrawal deadline must submit the Total Withdrawal Form to the Office of the Registrar. If the student wishes to return to the University, the student will be required to apply for re-admission.

Total withdrawals do not affect the cumulative GPA, but will affect academic suspension/dismissal. Because withdrawals may affect current or future eligibility for financial aid, students must contact the Financial Aid Office before submitting the Total Withdrawal Form to the Office of the Registrar. The withdrawal date is defined as the date that the Total Withdrawal is submitted to the Office of the Registrar.

### **Midterm Progress Reports**

A midterm progress report is prepared for all students each semester. The reporting period is listed in the Academic Calendar. Students should check with their instructors to determine when their reports will be complete and available for viewing through my.udc.edu. These progress reports, which appear in my.udc.edu, as "Midterm" Grades," do not become part of the student's official record. They are not calculated in any GPA, and they do not appear on any official or unofficial transcript.

### **Final Examinations**

Final examinations are held during the last week of the term. All students are required to take examinations according to the schedule issued by the Office of the registrar. Final examinations are to be administered on the dates published in the Academic Calendar.

### **Class Attendance Policy**

The University expects all students to attend classes on a regular basis. Students who find it necessary to be absent from class because of illness or other personal reasons should report to the instructor. This notification is for the instructor's information only and in no way excuses the absence, nor does it relieve you of the responsibility for assignments covered during the period of absence. Extenuating circumstances which may force a student to be absent should be reported to the departmental office and to the instructor. The instructor will determine the amount of assistance a student will need to complete the course requirements. Instructors are required to verify attendance in the Student Information System (Banner) for each term.

Students who withdraw from courses, do not attend at least one class before the end of the Add-Drop period, or fail to meet the minimum attendance requirements may face any or all of the following consequences:

- *may not receive financial aid refunds*
- *may have to repay some or all of their "unearned" funds;*
- *must pay a portion of tuition, fees, and book charges not covered by financial aid.*

Federal Regulations require institutions that do not take attendance to have alternative procedures to determine that a Title IV recipient began attendance in each class during a payment period or period of enrollment. Prior to disbursing TIV funds, an institution must first determine that the student is eligible to receive the funds. If disbursement occurs on or after the first day of classes, the institution must ensure that the student began attendance. For students that began attendance in some but not all of the classes, the institution is required to recalculate the student's Federal Pell Grant Program award based on the student's actual enrollment status. 34 C. F. R. § 690.80 (b) (2) (ii)

### **Academic Integrity Policy**

When students enroll at UDC, they assume the obligation to maintain standards of academic integrity. Violations of academic obligations include unethical practices and acts of academic dishonesty, such as cheating, plagiarism, falsification, and the facilitation of such acts. Cheating includes the actual giving or receiving of any unauthorized aid or assistance or the actual giving or receiving of any unfair advantage on any form of academic work. Plagiarism is the use of another's ideas or words, or both, as if they were one's own. Ideas or direct quotations from others are acceptable only when the source is appropriately cited.

Students are subject to dismissal from a degree program for unethical practices and acts of academic dishonesty. Ignorance of the policy will be no excuse. Refer to the Student Handbook for the prescribed policies and procedures that specify acts that violate UDC's policy of academic integrity.



## **Special Requests**

### **Repeating a Course**

Students who wish to improve their cumulative grade point average (CGPA) by repeating a course for which the student earned a grade of less than a C must complete the Request to Repeat a Course form and submit it to the Registrar during registration. Students may repeat a course only once, and they are not permitted to repeat more than twelve credits. The lower grade remains a part of the student's permanent record; however, the higher grade is computed into the CGPA. If a student repeats a course and receives a failing grade, the failing grade is counted only once in computing the GPA. Graduate students may repeat up to two courses during matriculation in any degree program.

### **Auditing**

Students who wish to audit a course must register for the course in the academic department offering the course and must have approval from the appropriate instructor. The grade assigned to courses that are audited is "AU." A previously audited course may be taken again for credit in a later term. Also, students may audit a course taken and passed previously; however, the status of a course may not be changed from credit to audit or from audit to credit after the end of the drop period. Usual tuition and fees apply to audited courses.

### **Independent Study**

Students who wish to enroll in independent study courses must have the approval of the academic department. To qualify, students must be in the second year of an associate's degree program or in the third year or higher of a bachelor's degree program with a cumulative GPA of 2.8. Graduate students must have completed a minimum of 15 semester hours and have a 3.0 cumulative GPA.

### **Cross Registration**

Special permission from the appropriate academic dean is necessary for Associate Degree students enrolled at UDC-CC to take courses offered in the University and, conversely, for University students to take courses offered in UDC-CC.

Such approvals are limited to a specific course that a UDC-CC student may need for graduation that is not offered during the semester the student will graduate or a Flagship student who desires to take a UDC-CC course that is not offered at the Flagship. Tuition and fees are determined by the institution where the student was admitted initially.

### **Graduate Study as a senior**

Students who are within nine (9) semester credit hours of completing the final requirements for the bachelor's degree and are in good academic standing at UDC may enroll in a maximum of two graduate courses (not exceed 6 semester hour). Prior to enrolling, students must secure written authorization from the chairperson of the student's major department, the department chairperson of the graduate program offering the course the student wishes to take, and the dean of the College/School in which the course is taught. If such courses are to later apply to a graduate degree program, graduate fees will be assessed on these courses.

### **Concurrent Enrollment Policy**

Students enrolled at the University who intend to take courses at other colleges and universities and earn transfer credits for these courses at UDC must submit a Concurrent Enrollment Approval Form and receive approval from the registrar prior to enrolling in the courses (enrollment through the Consortium of Universities is not considered concurrent enrollment). Students seeking to earn General Education or elective (outside of the major) transfer credit must receive approval from the registrar for concurrent enrollment. Students seeking to earn credit

towards required major or elective courses must receive approval from the chair of the department in which their declared major is offered in addition to the registrar. Failure to receive prior electronic or written approval for concurrent enrollment will result in denial of transfer credit consideration. Current UDC students who desire to enroll concurrently in UDC and at another institution and earn transfer credit towards an associate's, bachelor's, or master's degree must meet the following eligibility criteria:

- Have completed a minimum of 15 credit hours (associate's and bachelor's) and 9 credit hours for graduate students
- Be in good academic and financial standing
- Have prior approval for earning credits at another institution while enrolled at UDC (concurrent enrollment approval)

The University will only approve transfer credits earned at other colleges/universities through concurrent enrollment that meet the criteria outlined under Transferring Credit to UDC. Students must submit an official transcript from the university in which the credits were earned, to the registrar to ensure that the credits earned comply with the transfer credit criteria identified above and are officially applied towards their credits earned toward graduation.

**Note:** See section on Transferring Credits for further requirements.

## **Consortium of Universities**

UDC is a member of the Consortium of Universities of the Washington Metropolitan Area. Other affiliates are The American University, The Catholic University of America, Corcoran College of Art + Design, Gallaudet University, Georgetown University, George Mason University, The George Washington University, Howard University, University of Maryland (College Park Campus), Marymount University of Virginia, Trinity Washington University, National Defense University and National Defense Intelligence College. The Consortium was formed to facilitate coordination of resources among its affiliates. Currently enrolled UDC students may be eligible to take courses at any of the member institutions.

Courses taken through the Consortium must be required for a student's program of study and not offered in the given semester at UDC. Students are limited to six hours per semester (fall and spring only) through the Consortium; however, graduate students who have previously been granted nine transfer credits from non-Consortium arrangements may enroll and receive resident credit in only one of the Consortium's institutions. Eligible students in associate degree programs should have completed 30 credit hours, students in bachelor's degree programs should have completed 60 credit hours, and graduate students should have completed 50 percent of their program in residence.

To be eligible for participation in the Consortium (fall and spring), a student must:

1. Be enrolled in a degree-granting program and registered for the current semester at UDC;
2. Receive approval from the major department and the dean;
3. Be in good academic standing with a cumulative GPA of 2.00 (3.0 GPA for graduate students); and
4. Be in good financial standing with UDC.

Registration forms and instructions are available from the Office of the Registrar. The student must pay UDC tuition and fees for the current semester before becoming eligible to attend institutions in the Consortium. Official registration in UDC is a prerequisite for the Consortium registration. Participation in the Consortium is not available to students during summer sessions.



### **Credit by Examination**

Students may receive credit for specific courses when they successfully complete a departmental examination and are approved by the appropriate chairperson/dean.

The following rules apply:

- Students must receive prior permission from the chairperson of the department offering the course.
- After registration begins, and before the midterm grading period in the semester the examination is to be administered, the student must submit the approved Credit by Exam form to the Office of the Registrar.
- Students seeking credit by examination must be currently enrolled in a degree program and be in good academic standing. Students may seek credit by examination only for courses in which the student has never enrolled, and the examination may be taken only once per course.
- Students may not be registered for the maximum number of hours for the term in which credit by examination is requested.
- A fee of \$50.00 per credit hour and any additional tuition must be paid prior to the administration of the examination.
- The examination must be administered before the end of the final examination period, listed in the Academic Calendar, for the semester the credit by examination was administered.
- Upon successful completion of the examination, the credit must be approved by the department chairperson and the dean.
- The grade earned through the credit by examination process must be submitted to the Office of the Registrar by the end of the Final Examination period, listed in the Academic Calendar, for the semester the credit by examination was administered. Credit earned by examination will appear on the students' transcripts as "CR" and will not be included in computing the GPA.

### **Records**

#### **Transcript of Grades**

A UDC student's academic record is known as a transcript. All course work in which the student has enrolled is recorded on the student's transcript. Students may download an unofficial transcript from their My.udc account; however, official transcripts must be requested from the Office of the Registrar.

Official copies are sent directly to institutions and individuals upon the written request of the student in accordance with Public Law 93-380, Family Education Rights, and Privacy Act of 1975 (FERPA).

#### **Requesting a Transcript**

Requests for an official UDC transcript will be processed only after all financial requirements to the University have been met. Requests for transcripts generally require 2-3 business days to process. Students should allow additional time (5-7 days) if the request is being sent at the end of an academic semester or if the student attended the University or one of its predecessor schools prior to 1980. All transcript requests require the signature of the requestor.

All official transcripts requests carry a charge of \$5.00 per transcript. If ordering online, there is an additional \$2.25 per transcript service charge per recipient.

Students may order transcripts through several methods:

**On-Line:** UDC has an agreement with the National Student Clearinghouse to provide a 24/7 transcript ordering service to our current and former students. Using the National Student Clearinghouse Transcript Ordering Service requires the requestor to submit an electronic signature to the Clearinghouse to authorize the release of the transcript.

**Postal Service:** Mailed requests should be addressed to the Office of the Registrar. Students should complete and print the Transcript Request Form. Mail the Transcript Request Form and the appropriate fee (a \$5.00 per transcript fee in the form of a personal check and/or money order, made payable to the University of the District of Columbia) to the address below. ***Please do not send cash through the mail.***

Mailing Address:  
University of the District of Columbia  
Office of the University Registrar  
Building 39, Level A  
4200 Connecticut Avenue, NW  
Washington, DC 20008

**In Person:** Students may order a transcript in person by going to the Office of the Registrar, Building 39, Level A.

### **Credit and Grading**

#### **The Semester Credit Hour**

The semester credit hour is designated as the University's official unit of academic credit. A semester credit hour requires the completion of one 50-minute period of lecture or two laboratory hours a week for one semester (15 weeks).

#### **Semester Grades**

Semester grades are available online, through my.udc.edu. Students may print a grade report for their own records or to issue to a third party. Students may also order an official transcript.

#### **The Undergraduate Grading System**

The following grades will be used to designate levels of achievement and will appear on official transcripts:

A Excellent	4 quality points per semester hour of credit
B Above Average	3 quality points per semester hour of credit
C Satisfactory	2 quality points per semester hour of credit
D*Below Average	1 quality point per semester hour of credit
F Failure	0 quality points per semester hour of credit

*\*The University considers the grade of "D" as the lowest passing grade.*

#### **The Graduate Grading System**

A Excellent	4 quality points per semester hour of credit
B Above Average	3 quality points per semester hours of credit
C Satisfactory	2 quality points per semester hour of credit
F Failure	0 quality points per semester hour of credit

#### **Grade Codes**

For courses where no grade is awarded, UDC uses the following grade codes:

**P/F** Pass/Fail

**CR** Credit

**NC** No Credit

The symbols CR and NC are available for use in those courses designated by the academic department. The CR symbol will count toward the hours completed.



**AU** Audit: When students audit a course, UDC uses the “AU” symbol. Students may register to audit a course during the period of registration and late registration only. “AU” will be preprinted on the class roster and the official transcript.

**W** Withdrawal: UDC uses the symbol “W” to designate official withdrawals. Students may officially withdraw from a course or the University up to five weeks prior to the beginning of the scheduled final examination period. If a student fails to withdraw in the required manner, the student will receive the grade of “F” (failure). Students may withdraw from the University (all courses) at any point up to the beginning of the final examination period for which the student is enrolled. Students who withdraw from the University will not be considered as an enrolled student during the semester of withdrawal. If they wish to enroll in the next consecutive semester, they must reapply for admission.

**I** Incomplete: An instructor may give a student an incomplete (“I”) only if the student is passing the course at the end of the term, has not completed required course assignments, and signs a contract to complete the assignments. Incomplete grades are removed by the appropriate dean after the student has completed the course requirements and submitted the work to the appropriate professor in the next regular semester after the term in which the “I” is earned. If the student does not complete the unfinished work in the next consecutive term, the grade will become an “F” automatically.

**X** In Progress: The symbol “X” is used for thesis preparation or directed study. This grade is applicable only for graduate study.

### **Grade Point Average**

The grade point average (GPA) is the measure of general scholastic achievement upon which honors, awards, probationary regulations, and graduation are based. For the purposes of graduation and academic honors, only college-level courses are counted in the GPA and credits earned. In order to graduate, an undergraduate student must have a cumulative GPA of at least 2.0, and a graduate student must have a cumulative GPA of at least 3.0.

To compute the GPA, the credit value of each course is multiplied by the quality points of the grade earned in the course. The sum of these products is divided by the number of credits for which the student was enrolled during the semester. Similarly, the cumulative GPA is determined by dividing the sum of all quality points earned by the sum of all quality hours attempted. When a course is repeated, only the higher grade earned is considered in computing the cumulative GPA. Other grades received will remain on the transcript

Example:

In a given semester, a student receives the following grades:

English	3 credit hours	A	quality points = 12
Math	3 credit hours	C	quality points = 6
History	3 credit hours	B	quality points = 9
Biology	4 credit hours	A	quality points = 16
French	4 credit hours	C	quality points = 8

17=Total credit

Total quality=51 points hours attempted

51 quality points divided by 17 credit hours = 3.00

### **How to Access grades**

Final grades are available online only. To access grades, students should login to their my.udc account and go to the “Student Grades” link.

## **Undergraduate Academic Standing**

Whether a student is successful depends upon both the creativity and effectiveness of the institution of higher education and the student’s academic performance. The failure of either one of these parties to meet its responsibilities can result in lower levels of institutional performance and student achievement. The institution reaffirms its Community College and Flagship admission policies for students who seek to pursue undergraduate study, and the University also confirms its responsibility to recognize the level of performance of each student. Therefore, the University will make every effort to identify student needs and clarify the responsibilities of each unit in the University to help students fulfill their educational goals. Nonetheless, students are responsible for having the initiative to take advantage of the University’s support services.

### **Dean’s List**

A Dean’s List of all undergraduate students who have a cumulative grade point average of 3.00 and a term GPA of 3.30 or higher is certified by the Vice President for Academic Affairs at the end of each semester.

In order to qualify for the Dean’s List, students must have registered for a minimum of 12 credit hours. A student who fails, fails to complete, or withdraws from any course will be ineligible for the Dean’s List for that semester. Note: qualifying for the Dean’s List does not automatically qualify a student for University Honors’ eligibility.

### **Academic Standards**

The University requires each candidate for an associate or bachelor’s degree to have earned a minimum cumulative grade point average of 2.0. Additionally, a student must complete all General Education requirements and all requirements of the degree program elected.

- Any enrolled student whose cumulative GPA is less than 2.00 is placed on academic probation.
- A freshman student enrolled in the University must achieve a cumulative GPA of 2.00 or a term GPA of better than 2.00 by the end of the third term of enrollment (summer terms included).
- A freshman student who earns less than a 2.00 cumulative GPA after three terms must achieve a GPA of better than 2.00 each subsequent term of enrollment.
- A freshman student enrolled for three terms, including summer, who has a cumulative GPA of less than 2.00 and who fails to achieve a term GPA of better than 2.00 will be subject to suspension from the University.

Until a student in the University achieves a 2.00 cumulative GPA, the student must abide by the course load restrictions placed by the University upon the freshman student with academic deficiencies, as follows:

- If the GPA is below 1.6 after the first semester of enrollment, the student is limited to a course load of nine credit hours during the next semester of enrollment.
- If the GPA is 1.6 to 2.0 after the first semester of enrollment, the student is limited to a course load of 12 credit hours during the second semester of enrollment.
- If the cumulative GPA is below 1.8 after the second semester of enrollment, the student is limited to a course load of nine credit hours during the next semester of enrollment.
- If the cumulative GPA is 1.8 to 2.0 after the second semester of enrollment, the student is limited to a course load of 12 credit hours during the next semester of enrollment.

After three semesters, or the completion of 30 credit hours, whichever comes first, a student enrolled in the University will be governed by the following policies:





- The student must maintain a cumulative GPA of 2.00.
- In the absence of a 2.00 cumulative GPA, the student must achieve a semester GPA of 2.10 or better each term of enrollment until a cumulative GPA of 2.00 is achieved.
- Failure to meet this standard will result in the suspension of the student for one semester.
- A student who has a cumulative GPA of less than 2.0 is limited to a course load of nine credit hours. The dean may grant permission for a course load of 10 credit hours.

A **transfer student** admitted as a probationary student must achieve a term GPA of 2.0 during the first term of enrollment.

Thereafter, the student is subject to the academic policies applicable to: (a) *Freshman students, as described above, if the student has completed fewer than 30 credit hours, or (b) All other students, as described above, if the student has completed 30 or more credit hours.*

### **Probation and Suspension**

When a student's cumulative grade point average falls below 2.00, the student is placed on academic probation. Notification will be sent from the Office of the Registrar informing the student that the grade point average is below the acceptable level. During the next term of enrollment, if the student fails to achieve a term grade point average of 2.10, the student is subject to suspension. Academic probation and academic suspension will be entered on the official permanent record of the student. A student who has completed 30 credit hours with a cumulative GPA of less than 2.00 will be restricted to a nine-semester hour course load (10 credit hours with the Dean's approval). If a student is subject to suspension and has registered for course work, their registration will be cancelled. A student enrolled in the University with fewer than 30 credit hours will be subject to the conditions and regulations placed by the University upon freshman students, as described above. If a student is subject to suspension and has registered for course work, their registration will be cancelled. The period of suspension is one academic semester.

### **Dismissal**

If a student's cumulative GPA is below 2.00 and the student fails to successfully complete at least 50 percent of the hours attempted and fails to achieve a term GPA of 2.10 or better each term of enrollment following a second academic suspension, the student will be dismissed from the University. All courses for which the student was enrolled after add/drop are considered in determining 50 percent of the hours attempted. Reinstatement for such students will be considered at least two calendar years from the date of dismissal. If a student is subject to dismissal and has registered for course work, the registration will be cancelled.

### **Graduate Academic Standing**

To remain in good academic standing as a graduate student, students must maintain a 3.0 cumulative grade point average (CGPA) each semester and meet all requirements of the chosen degree program. Also, students must earn at least a grade of B in all major courses. In the event a student earns a grade of "C" in a major course, the student must repeat the course. Students should consult the respective programs to determine how many times a course may be repeated.

### **Completing the Graduate Degree**

Students have five years to complete a Master's degree. If an extension is needed, the student must request this in writing to the Dean's Office through the department chairperson. Extensions may not exceed one academic year. If a student exceeds the five-year limit, the student will be subject to any new program requirements that have been established since the time the student was admitted to the program.

### **Graduate Academic Probation**

Graduate students must maintain a 3.0 cumulative grade point average (CGPA) each semester and meet all requirements of the chosen degree. When a student's CGPA falls below the required 3.0, the student will be placed on probation. During this time, the student is restricted to six (6) semester hours during the regular semester and three (3) semester hours during the summer term. The academic dean will notify the student that he or she is on probation and that the student: a) is required to reduce the course load and b) will be suspended unless the student achieves a 3.0 CGPA by the end of the first semester of probationary status.

### **Graduate Academic Suspension**

A graduate student who is on academic probation and fails to raise the cumulative grade point average (CGPA) to the acceptable 3.0 requirement at the end of the probationary period will be suspended for one semester.

The academic dean will notify the student of the suspension after grades from the previous semester have been posted and grade point averages have been determined. If the student is suspended after having registered for courses, the Registrar will cancel the registration.

### **GRADUATE DISMISSAL**

If a student's cumulative GPA is below 3.00 and the student fails to successfully achieve a cumulative GPA of 3.00 or higher each term of enrollment following the period of suspension will be dismissed from the University. If a student is dismissed after registering for courses, the Registrar will cancel the registration. The student will be eligible for reinstatement two calendar years from the date of dismissal.



## General Education Overview

### Our Mission

The mission of UDC's General Education Program (GEP) at UDC is to provide all students with the knowledge, skills, and abilities that will serve them in their efforts to become lifelong learners, community leaders, and fruitfully engaged professionals in rewarding and evolving careers and endeavors.

The General Education Program is rooted in both the classical ideals of undergraduate liberal education and UDC's unique history, mission, and student population. It gives students a solid foundation in the liberal arts and sciences, helping them develop the intellectual tools they need to excel in any endeavor they pursue. It exposes students to the wisdom and perspective of a variety of disciplines, and it builds fundamental skills that they will be able to use no matter what their ultimate major or career. In a rapidly-changing, increasingly complex world in which our graduates may change careers multiple times, a strong general education is needed more than ever.

By the time students finish the GE program, we want our graduating Firebirds to:

- Be intellectually curious
- Communicate orally and in writing with proficiency and ease; choose appropriate platforms for communicating their ideas
- Know about a wide variety of subjects and their applied knowledge reflects insights gained from exposure to the arts, humanities, social sciences, natural sciences, and business
- Be able to cope with unfamiliar material and approach new situations analytically, logically, and creatively
- Be aware of the ethical implications of actions and make values-driven decisions
- Be able to access information using a variety of formal and informal methods
- Use technology efficiently to obtain and evaluate information
- Embrace service, civic responsibility, and teamwork
- Champion environmental consciousness
- Be economically literate
- Be tolerant of and can adapt to the natural diversity of peoples, their ideas, and cultures
- Consider learning to be a lifelong process

### Brief History

The UDC General Education Program was launched in Fall 2010 after a comprehensive, fifteen-month reform effort led by faculty members from across the University. The committee sought to strengthen the institution's bachelor's degree offerings and develop a renewed curriculum that would address both the changing expectations at the University and changing approaches to undergraduate education nationwide. The committee embraced the 14 core learning outcomes outlined in the Association of American Colleges and Universities' report, Liberal Education and America's Promise (LEAP):

Inquiry

- Critical thinking
- Creative thinking
- Written communication
- Oral communication
- Quantitative literacy
- Information literacy
- Teamwork
- Problem Solving
- Civic knowledge and engagement – local and global
- Intercultural knowledge and competence
- Ethical reasoning
- Foundations and skills for lifelong learning
- Integrative learning

### Program Requirements

Over the course of their studies, all degree-seeking bachelor's degree students entering the University in Fall 2010 or thereafter are required to complete 13 courses for a total of 40 credits (37 credits within the stand-alone General Education Program plus 3 required credits in a writing intensive course in the major). Students complete the General Education core in a developmental sequence. The four-year prototype for the General Education curriculum is as follows, with the number of credit hours for each course shown in parentheses. In order to be eligible to graduate, every undergraduate major at the University is required to fulfill the General Education program requirements listed below.

Semester	Course	Course #
1st Semester	Foundation Writing I Foundation Quantitative Reasoning Foundation Oral Communications	IGED110 IGED 120 IGED 130
2nd Semester	Foundation Writing II Discovery Quantitative Reasoning	IGED 111 IGED 220
3rd Semester	Foundation Ethics Discovery Writing Discovery Technology	IGED 140 IGED 210 IGED 250
4th Semester	Discovery Science Discovery Diversity	IGED 260 IGED 270
5th-6th Semester	Discovery Civics Writing Intensive course within major	IGED 280
7th-8th Semester	Frontier Capstone	IGED 391-392

### Courses by skill area

#### English

IGED 110: Foundation Writing I  
IGED 111: Foundation Writing II  
IGED 210: Discovery Writing

#### Science/Math/Technology

IGED 120: Foundation Quantitative Reasoning  
IGED 220: Discovery Quantitative Reasoning  
IGED 250: Discovery Technology  
IGED 250: Discovery Science

#### Communications

IGED 130: Foundation Oral Communications

#### Humanities/Social Sciences

IGED 140: Foundation Ethics  
IGED 270: Discovery Diversity  
IGED 280: Discovery Civics

#### All areas

IGED 391-392: Frontier Capstone

#### Total Courses

- Number of required credits to complete General Education: 40 (37 within GE + 3 in a Writing Intensive course within the major)
- Number of GE courses: 13



### **Additional Information**

All degree-seeking bachelor's students who were enrolled in the University before fall 2010 are expected to complete the following "university-wide requirements" (46 credits) instead of the General Education requirements. The evaluation of University-wide requirements by the Academic Advising Center or the student's faculty advisor is essential to assure uniformity in assessing the extent to which students meet the requirements throughout the University. Academic departments are responsible for evaluating the total record when clearing for graduation.

**The University-wide requirements for students who enrolled at UDC before fall 2010 include:**

**English Composition (6)**

**Literature/Advanced Writing (6)**

**Foreign Language (6):** French, Spanish, Arabic, Chinese, or any other language offered by the World Languages Program other than the student's native language. Students are encouraged to take the same language for two semesters.

**Philosophy (3):** Any philosophy course at the 100 or 200 level.

**Social Sciences (6):** Psychology, sociology, anthropology, economics, history, social work, administration of justice, geography, political science.

**Fine Arts (3):** Music, art, theatre, graphic design

**Mathematics (6):** Any college level mathematics course 100 or above

**Natural Science (6):** Two laboratory science courses (Lecture and lab must be completed with a passing grade of 'C'.)

**Additional Bachelor's Requirements (4):**

Bachelor's students must select additional coursework in health education, personal and community health, speech, or natural science. If the student has six hours of laboratory science, the additional four hours selected in natural science may or may not be in a laboratory science.

Student who major in the following bachelor's programs are exempt from the foreign language requirement: Architecture, Civil Engineering, Computer Science, Electrical Engineering, Information Technology, Mechanical Engineering, Graphic Communications, and Nursing.

University-wide Requirements Met Through Examination (for students enrolled prior to fall 2010 only; the policies below do not apply to the General Education program established in 2010.)

Students who are exempted by examination from specific English or mathematics courses that meet university-wide requirements will receive "CR" (credit) on their transcripts. The amount of credit to be awarded is the same credit carried by the specific course from which the student is exempted. The symbol "CR" is not computed in the GPA. Exemption by examination must be approved by the dean upon authorization by the appropriate department (English or Mathematics).

Students who have applied for graduation and who are three credit hours (or fewer) deficient in meeting any University-wide requirements may seek to have that requirement satisfied by testing out through an examination procedure developed by the area in which the deficiency exists (contact the appropriate department). With the prior approval of the dean, the department may administer the examination; however, examinations are handled on a case by case basis and may be administered only if the student meets (1) all program requirements as certified by the major department, and (2) all other University-wide requirements for graduation, including a minimum of 120 hours for the bachelor's degree or 60 hours for the associate's degree as certified by the Office of the Registrar.

### **General Education Course Descriptions**

**Foundation Writing (IGED 110 and 111)**

Foundation Writing seminars are 3-credit Interdisciplinary General Education courses that focus on improving students' critical reading and writing skills while exploring a given academic theme. The goal of these courses is to teach students how to read and write with skill and ease. Students learn to express ideas and thoughts using a range of written forms that consider content, audience, and professional standards. They study a variety of graphic and textual material using multiple approaches to reading, interpretation, and comprehension. Credits: 3

**Foundation Quantitative Reasoning (IGED 120)**

Foundation Quantitative Reasoning seminars are 3-credit Interdisciplinary General Education courses that focus on improving students' quantitative reasoning skills while exploring a given academic theme. The goal of these courses is to teach students how to reason using the language and strategies of mathematics. Students analyze data, find connections among and between quantitative relationships, and communicate their findings using a variety of formats within different settings and to diverse audiences. By using a variety of strategies, students solve problems in a variety of real-world contexts. Credits: 3

**Foundation Oral Communication (IGED 130)**

Foundation Oral Communication seminars are 3-credit Interdisciplinary General Education courses that focus on improving students' interpersonal communication skills while exploring a given academic theme. The goal of these courses is to teach students how to communicate orally with confidence, proficiency, and ease in professional and interpersonal interactions. Students engage in extensive communication practice, with a focus on public speaking. They study the relationship between speech genres, performance, and the different cultural, institutional, ethical, and professional expectations for proficient communication. Credits: 3

**Foundation Ethics (IGED 140)**

Foundation Ethics seminars are 3-credit Interdisciplinary General Education courses that focus on improving students' ethical reasoning skills while exploring a given academic theme. The goal of these courses is to teach students how to make values-based decisions that are grounded in an awareness of the ethical implications of one's actions. Students grapple with twenty-first century ethical problems and learn to argue from multiple perspectives to demonstrate that there is not always an absolute answer to every ethical question. They study an array of moral concepts, principles, and codes used frequently in the discussions of ethics and apply them to everyday issues. Credits: 3

**Discovery Writing (IGED 210)**

Discovery Writing seminars are 3-credit Interdisciplinary General Education courses that focus on improving students' critical reading and writing skills while exploring a given academic theme. The goal of these courses is to teach students how to read and write with skill and ease. Students learn to express ideas and thoughts using a range of written forms that consider content, audience, and professional standards. They study a variety of graphic and textual material using multiple approaches to reading, interpretation, and comprehension. Credits: 3

**Discovery Quantitative & Economic Reasoning (IGED 220)**

Discovery Quantitative & Economic Reasoning seminars are 3-credit Interdisciplinary General Education courses that focus on improving students' quantitative reasoning skills while exploring a given academic theme. The goal of these courses is to teach students how to reason using the language and strategies of mathematics. Students solve problems and analyze data in various contexts including applications demonstrating personal economic literacy. Credits: 3



***Discovery Technology (IGED 250)***

Discovery Technology seminars are 3-credit Interdisciplinary General Education courses that focus on improving students' technological skills. The goal of these courses is to teach students how to use technology effectively to obtain, evaluate, organize, and present information. Students study how to locate, retrieve, and evaluate information obtained from a variety of sources. They learn how to apply strategies for secure and ethical use of the Internet, as well as how to apply appropriate technology to solve problems.

Credits: 3

***Discovery Science (IGED 260)***

Discovery Science seminars are 4-credit Interdisciplinary General Education courses that focus on improving students' scientific reasoning skills and raise their environmental consciousness. The goal of these courses is to develop students' awareness of the interrelationships of humanity and the natural world and the impact of those relationships on a sustainable planet. Students study the relationship between humans and the natural environment. They use scientific inquiry to collect, analyze, and evaluate information related to practices and policies that affect the environment.

Credits: 4

***Discovery Diversity (IGED 270)***

Discovery Diversity seminars are 3-credit Interdisciplinary General Education courses that focus on exposing students to the rich diversity of our city and the world. The goal of these courses is to teach students to understand and appreciate the global and local diversity of people, ideas, languages, and cultures. Students examine diverse social groups and compare cultural variations among them. They learn to identify and critique ideas and behaviors based on stereotypes, as well as recognize cues that signal intercultural misunderstanding.

Credits: 3

***Discovery Civics (IGED 280)***

Discovery Civics seminars are 3-credit Interdisciplinary General Education courses that give students the opportunity to practice good citizenship. The goal of these courses is to teach students to understand the importance of civic responsibility and demonstrate the ability to engage in teamwork and community service. Students study the role and impact of the institutional structures, powers, and practice of government at all governmental levels. They learn about the rights, liberties, and intrinsic value of all persons living in a free society.

Credits: 3

***Frontier Capstone (IGED 391-392)***

Frontier Capstone seminars are 3-credit Interdisciplinary General Education courses that offer students the opportunity to pursue an in-depth project on a subject of deep interest. The goal of these courses is to teach students how to cope effectively with new situations, information, and experiences, using skills in critical thinking, problem solving, and creativity. Following exposure to a wide variety of scholarly subjects, students demonstrate through academic work the ability to obtain and appropriately use information retrieved through many formal and informal methods.

Credits: 3



## College of Agriculture, Urban Sustainability and Environmental Science

☎ 202.274.5194

The University of the District of Columbia (UDC) is an urban land-grant university that offers associate, baccalaureate, and graduate programs, certificate programs and community outreach programs to learners of all ages. The College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES) embodies the land-grant tradition of UDC. In addition to offering the academic programs described below, we also offer a wide range of community education programs. Academic programs in CAUSES are listed under the heading "Division of Academic Programs." Community education programs are listed under the heading "Division of Land-Grant Programs."

CAUSES programs recognize that, like ecosystems, we are connected to people and places right here in our own neighborhoods and to those halfway around the world. Pollution travels, resources are not always consumed where they are generated, and job markets are increasingly global and knowledge-based. Given these realities, we aspire to teach you to think in systems, work in diverse teams, and focus on connectivity and innovation. We apply these principles to all of our programs, including Master's and Bachelor's Degree programs, professional development certificates, and community outreach and youth programs. For additional information about CAUSES, please visit our website at [www.udc.edu/CAUSES](http://www.udc.edu/CAUSES). We look forward to serving you.

### Our Mission

The College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES) of the University of the District of Columbia (UDC) offers research-based academic and community outreach programs that improve the quality of life and economic opportunity for people and communities in the District of Columbia, the nation, and the world.

### Our Vision

The College of Agriculture, Urban Sustainability and Environmental Sciences (CAUSES) of the University of the District of Columbia (UDC) will be a world leader in designing and implementing top quality, research-based academic and community outreach programs that measurably improve the quality of life and economic prosperity of people and communities in the District of Columbia, the nation, and the world.

### Our Aspiration for CAUSES Graduates

CAUSES graduates are exceptionally well-prepared to succeed in their chosen field of study. In addition, our graduates stand out by having distinctive attributes and competencies.

CAUSES graduates are:

- Global citizens committed to local relevance;
- Adept at solving urban problems;
- Dedicated to improving health and wellness;
- Skilled at navigating diverse social, cultural, built and natural environments;
- Independent thinkers and collaborative team players; and
- Adaptive lifelong learners.

### Division of Academic Programs

Academic programs within CAUSES are offered at the Bachelor's and Master's Degree level. The Academic Programs within CAUSES offer courses that are designed to prepare students not only for success in their chosen field of study but for long-term success in their careers and lives. What follows is a list of the academic degree programs offered within the college as well as an overview of program requirements and course descriptions for each of the degree programs.

#### Architecture and Community Planning

Bachelor of Science in Architecture  
Master of Architecture

#### Environmental Science and Urban Sustainability

Bachelor of Science in Environmental Science, with concentration in:  
Environmental Sciences  
Urban Sustainability

#### Water Resources Management

Professional Science Master's Degree in Water Resources Management

#### Health Education

Bachelor of Science in Health Education with a concentration in Public Health  
Health and Physical Education (The Health and Physical education track is not accepting students while the program undergoes internal reviews)

#### Nursing Completion Program Registered Nurse to Bachelor of Science

Bachelor of Science in Nursing (RN to BSN)

#### Nutrition, Dietetics and Food Science

Bachelor of Science in Nutrition and Food Science  
Master of Science in Nutrition and Dietetics

### College Policy Changes

*The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.*

*Policies of the department are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.*



### ***Division of Land-Grant Programs***

The Land-Grant Division of CAUSES offers research-based community education and professional certification programs that are delivered through five centers: the Center for Urban Agriculture and Gardening Education, the Center for Sustainable Development which includes the Water Resources Research Institute; the Center for 4-H and Youth Development which includes the Institute of Gerontology; the Center for Nutrition, Diet and Health; the Architectural Research Institute. The five CAUSES Centers also offer a range of assessment services to residents and community groups in the District of Columbia. CAUSES centers collectively provide over 2,000 programs and serve more than 180,000 participants annually

Each of the CAUSES centers houses a number of programs and services that are designed to engage the communities and neighborhoods where we are located and to enrich the lives of District of Columbia residents. What follows is a description of each center's programs and services.

#### **Center for Urban Agriculture and Gardening Education**

- Gardening and Urban Agriculture
- Master Gardening
- Specialty and Ethnic Crops
- Urban Forestry

#### **Sustainable Development**

- Green Entrepreneurship
- Small Business Development
- Green Technology
- Green Infrastructure
- Air
- Water
- Soil/Waste

#### **Water Resources Research Institute**

- National Capital Region Watershed Stewards Academy
- Stormwater Management and Planning
- Water Quality Education
- Water Safety Training

#### **Center for Nutrition, Diet and Health**

- DC Professional Food Managers/Food Handler Certification Program
- District of Columbia Water Blind Taste Testing Research Project
- Expanded Food and Nutrition Education Program (EFNEP)
- Farmers' Market Nutrition Education Program
- Food Demonstrations and Cooking Classes
- Food Safety Education
- Kids Cooking Classes
- Nutrition, Diet and Health Seminars
- Nutrition on Demand
- Supplemental Nutrition Assistance Program-Education (SNAP-Ed)
- Team Nutrition Project

#### **Institute of Gerontology**

- Senior Companion/Respite Aid
- Bodywise program
- In Home Helper Program

#### **Center for 4-H and Youth Development**

- 4-H Clubs
- 4-H Living Interactive Family Education (4-H LIFE)
- 4-H International Networks
- 4-H Summer Camp
- 4-H STEM
- EnvironMentors Program
- Life Smarts Consumer Education for Teenagers
- Operation Military Kids

#### **Architectural Research Institute**

- Building Rehabilitation
- Green Building Codes
- Urban Planning



## Architecture and Community Planning

### Bachelor of Science Architecture and Community Planning

#### Program Requirements for the Major

The BS program in Architecture requires completing a total of 123 credit hours of college-level courses in order to graduate.

#### General Education Requirements:

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
ARCP 411	Professional Ethics and Practice ( <i>Satisfies IGED 140</i> )	3
IGED 210	Discovery Writing	3
ARCP 105	Intro to Computer Tech I ( <i>Satisfies IGED 250</i> )	3
ARCP 412	Preservation Rehab. Tech I ( <i>Satisfies IGED 280</i> )	3
ARCP 321	History and Theory Arch I ( <i>Satisfies IGED 270</i> )	3
ARCP 401	Architectural Studio V ( <i>Satisfies IGED 391</i> )	5
ARCP 402	Architectural Studio VI ( <i>Satisfies IGED 392</i> )	5
ORIN 101	Freshman Orientation	1
MATH 105	Intermediate Algebra ( <i>Satisfies IGED 120</i> )	3
MATH 113	Pre-Calculus with Trigonometry II ( <i>Satisfies IGED 220</i> )	3
PHYS 101	Intro to College Physics I Lecture ( <i>Satisfies IGED 260</i> )	3
PHYS 103	Intro to College Physics I Lab (Lecture + Lab)	1

#### Program Core Requirements:

ARCP 101	Basic Design and Communication I	3
ARCP 102	Basic Design and Communication II	3
ARCP 105	Intro to Computer Technology I	3
ARCP 106	Intro to Computer Technology II	3
ARCP 114	Materials & Methods of Construction I	3
ARCP 116	Materials & Methods of Construction II	3
ARCP 201	Architectural Studio I	4
ARCP 202	Architectural Studio II	4
ARCP 206	CAD Docs/Specs and Estimating	3
ARCP 231	Statics and Structural Design	3
ARCP 241	Advanced Computer Simulation	3
ARCP 244	Environmental Systems I	3
ARCP 246	Environmental Systems II	3
ARCP 256	Built Environment	3
ARCP 301	Architectural Studio III	5
ARCP 302	Architectural Studio IV	5
ARCP 321	History & Theory of Architecture I	3
ARCP 322	History & Theory of Architecture II	3
ARCP 331	Theory of Structures	3
ARCP 332	Design of Steel Structures	3
ARCP 401	Architectural Studio V	5
ARCP 402	Architectural Studio VI	5
ARCP 411	Professional Ethics & Practice	3
ARCP 412	Preservation Rehabilitation Tech I	3
ARCP 414	Professional Ethics & Practice II	3
ARCP 432	Design of Concrete Structures	3
MATH 105	Intermediate Algebra	3
MATH 113	Pre-Calculus with Trigonometry I	3
PHYS 101/103	Introduction to College Physics I Lecture/Lab	4
PHYS 102/104	Introduction to College Physics II Lecture/Lab	4

\*Writing Intensive Course (Consult with your Faculty Advisor)

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the program core in a satisfactory amount of time.

#### Bachelors of Science in Architecture

Credit Hours: 123

#### Year 1: Semester 1 / Total Credit: 15

ARCP 101	Basic Design & communication I	3
ARCP 105	Intro to computer Tech I	3
ARCP 114	Materials & Methods of Construction I	3
IGED 110	Foundation Writing I	3
MATH 105	Intermediate Algebra	3

#### Year 1: Semester 2 / Total Credit: 15

ARCP 102	Basic Design and Communication II	3
ARCP 106	Intro to Computer Tech II	3
ARCP 116	Materials & Methods of Const. II	3
IGED 111	Foundation of Writing II	3
MATH 113	Pre-Calculus with Trigonometry I	3

#### Year 2: Semester 3/ Total Credit: 17

ARCP 201	Architectural Studio I	4
ARCP 231	Statics and Structural Design	3
ARCP 241	Advanced Computer Simulation	3
ARCP 244	Environmental Systems I	3
PHYS 101 / 103	Intro to College Physics I Lecture/ Lab	4

#### Year 2: Semester 4 / Total Credit: 17

ARCP 202	Architectural Studio II	4
ARCP 206	CAD Docs/Specs and Estimating	3
ARCP 256	Built Environment	3
ARCP 246	Environmental Systems II	3
PHYS 102/104	Intro to College Physics II Lecture / Lab	4

#### Year 3: Semester 5 / Total Credit: 14

ARCP 301	Architectural Studio III	5
ARCP 321	History & Theory of Architecture I	3
ARCP 331	Theory of Structures	3
IGED 130	Foundation of Oral Communication	3

#### Year 3: Semester 6 / Total Credit: 17

ARCP 302	Architectural Studio IV	5
ARCP 322	History & Theory of Architecture II	3
ARCP 332	Design of Steel Structures	3
IGED 210	Discovery Writing	3
	Social Science Elective	3

#### Year 4: Semester 7 / Total Credit: 15

ARCP 401	Architectural Studio V	5
ARCP 411	Professional Ethics & Practice	3
ARCP 412	Preservation Rehabilitation Tech I	3
	Philosophy Elective	3

#### Year 4: Semester 8 / Total Credit: 13

ARCP 402	Architectural Studio VI	5
ARCP 414	Professional Ethics & Practice II	3
ARCP 432	Design of Concrete Structures	3
	Elective	3

**Bachelor of Science in Architecture Degree Program Total: 123**



## Architecture and Community Planning

### Master of Architecture

The Master of Architecture I degree program requires completion of the following three-semester curriculum, including 37 total credits, in addition to prior completion of the Bachelor of Science in Architecture.

Note: Students are required to take a writing proficiency course and a writing proficiency test before graduating.

#### Program Core Requirements:

ARCP 501	Professional Studio Lab VII	5
ARCP 502	Thesis Studio Lab VIII	5
ARCP 503	Urban and Community Design I	3
ARCP 504	Urban and Community Design II	3
ARCP 505	Sustainable Design I	3
ARCP 506	Sustainable Design II	3
ARCP 507	Graduate Seminar	3
ARCP 601	Preservation Rehabilitation Tech	3

#### Model Plan of Study

Master of Architecture I		
NINTH SEMESTER		
COURSE	TITLE	CREDITS
ARCP-501	PROFESSIONAL STUDIO LAB VII	5
ARCP-503	URBAN AND COMMUNITY DESIGN I	3
ARCP-505	SUSTAINABLE DESIGN I	3
ARCP-507	GRADUATE SEMINAR	3
<b>TOTAL</b>		<b>14</b>
TENTH SEMESTER		
COURSE	TITLE	CREDITS
ARCP-502	THESIS STUDIO LAB VIII	5
ARCP-504	URBAN AND COMMUNITY DESIGN II	3
ARCP-506	SUSTAINABLE DESIGN II	3
	ELECTIVE	3
<b>TOTAL</b>		<b>14</b>
ELEVENTH SEMESTER		
COURSE	TITLE	CREDITS
ARCP-601	PRESERVATION REHAB. TECH.	3
	ELECTIVE	3
	ELECTIVE	3
	<b>TOTAL</b>	<b>9</b>
<b>Master of Science in Arch. I Degree Program Total</b>		<b>37</b>

*The Master of Architecture II* degree program requires completion of the following seven-semester curriculum, including 86 total credits.

FIRST SEMESTER		
COURSE	TITLE	CREDITS
ARAC-501	DESIGN STUDIO I	3
ARAC-511	BUILDING INFORMATION MODELING I	3
ARAC-513	STATICS & STRUCTURAL DESIGN	3
	ELECTIVE	3
<b>TOTAL</b>		<b>12</b>
SECOND SEMESTER		
ARAC-502	DESIGN STUDIO II	3
ARAC-512	BUILDING INFORMATION MODELING II	3
ARAC-519	DESIGN OF CONCRETE STRUCTURES	3
ARAC-516	ENVIRONMENTAL STUDIES	3
<b>TOTAL</b>		<b>12</b>
THIRD SEMESTER		
ARAC-503	DESIGN STUDIO III	5
ARAC-515	BUILDING INFORMATION MODELING III	3
ARAC-514	THEORY OF STRUCTURES	3
<b>TOTAL</b>		<b>11</b>
FOURTH SEMESTER		
ARAC-504	DESIGN STUDIO IV	5
ARAC-518	CONTRACT ADMINISTRATION	3
ARAC-520	DESIGN OF STEEL STRUCTURES	3
ARAC-522	HISTORY & THEORY OF ARCH.	3
<b>TOTAL</b>		<b>14</b>
FIFTH SEMESTER		
ARCP-501	PROFESSIONAL STUDIO LAB VII	5
ARCP-503	URBAN AND COMMUNITY DESIGN I	3
ARCP-505	SUSTAINABLE DESIGN I	3
ARCP-507	GRADUATE SEMINAR	3
<b>TOTAL</b>		<b>14</b>
SIXTH SEMESTER		
ARCP-502	THESIS STUDIO LAB VIII	5
ARCP-504	URBAN AND COMMUNITY DESIGN II	3
ARCP-506	SUSTAINABLE DESIGN II	3
	ELECTIVE	3
<b>TOTAL</b>		<b>14</b>
SUMMER OR SEVENTH SEMESTER		
ARCP-601	PRESERVATION REHAB. TECH.	3
	ELECTIVE	3
	ELECTIVE	3
	<b>TOTAL</b>	<b>9</b>
<b>Master of Science in Arch. II Degree Program Total</b>		<b>86</b>
<b>Acceleration courses total</b>		<b>49</b>
<b>Graduate courses total</b>		<b>37</b>





## Environmental Science and Urban Sustainability

### Bachelor of Sciences in Environmental Science: General Environmental Science

#### Program Requirements for the Major

The Bachelor of Science in Environmental Sciences degree program requires completion of the following eight-semester curriculum, including 123 total credits. Students may choose from one of three concentrations: General Environmental Sciences, Urban Sustainability, or Water Resources Management.

#### Interdisciplinary General Education Requirements

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 250	Discovery Technology	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
IGED 391	Frontier Capstone I	1
IGED 392	Frontier Capstone II	2
ORIN 101	Freshman Orientation	1
MATH 113	Pre-Calculus with Trigonometry I ( <i>Satisfies IGED 120</i> )	3
MATH114	Pre-Calculus with Trigonometry II ( <i>Satisfies IGED220</i> )	3
BIOL 101	Biological Science Lecture ( <i>Satisfies IGED 260</i> )	3
BIOL 103	Biological Science I Lab (Lecture + Lab)	1
ENSC 470	Senior Project ( <i>satisfies the writing in the major</i> )	3

#### Program Core Requirements:

ENSC 105	Environmental and Sustainability	3
ENSC 145	Introduction to Environmental Science Lecture	3
ENSC 146	Introduction to Environmental Science Lab	1
ENSC 221	Wastewater Technology Lecture	3
ENSC 223	Wastewater Technology Lab	1
ENSC 225	Environmental Studies and Sustainability	3
ENSC 250	General Ecology Lecture	3
ENSC 251	General Ecology Lab	1
ENSC 324	General Soils Lecture/Lab	4
ENSC 352	Sustainable Agriculture Lecture	3
ENSC 353	Sustainable Agriculture Lab	1
ENSC 354	Environmental Toxicology Lecture	3
ENSC 355	Environmental Toxicology Lab	1
ENSC 357	Urban Sustainability Lecture	3
ENSC 359	Urban Water Quality Management	3
ENSC 448	Environmental Field Problems	4
ENSC 450	Environmental Health Lecture	3
ENSC 451	Environmental Health Lab	1
ENSC 452	Air Pollution Lecture	3
ENSC 453	Air Pollution Lab	1
ENSC 456	Research Methodology	1
ENSC 457	Aquatic Ecology Lecture	3
ENSC 458	Aquatic Ecology Lab	1
ENSC 459	Hydrodynamics and Water Quality Lecture	3
ENSC 460	Climate Change and Carbon Reduction Lecture	3
ENSC 461	Environmental Policy Lecture	3
ENSC 470	Senior Project ( <i>Satisfied Writing Intensive course</i> )	3
ENSC 471	Internship	3

#### APPROVED PROGRAM ELECTIVES

A total of 12 credits are required from the following list of directed and free electives.

General Environmental Science Concentration:		
ENSC 354	Environmental Toxicology Lecture	3
ENSC 355	Environmental Toxicology Lab	1
ENSC 448	Environmental Field Problems	3
ENSC 459	Hydrodynamics and Water Quality	3
GEOG 475	Urban Environmental Information Systems (GIS)	3
CVEN 325	Hydrology and Hydraulics Lecture	3
CVEN 327	Hydrology and Hydraulics Lab	1
NUFS 322	Nutrition Assessment Lecture	3
NUFS 323	Nutrition Assessment Lab	1
Free Electives		
ENSC 105	Environment and Sustainability	3
ENSC 250	Environmental Studies and Sustainability	3
ENSC 359	Urban Water Quality Management (Lecture / Lab)	



## Environmental Science and Urban Sustainability

### Bachelor of Sciences in Environmental Science: General Environmental Science

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Credit Hours Required: 123

Year 1: Semester 1		
ENSC 145/146	Intro Environmental Science Lecture / Lab	4
CHEM 111/13	General Chemistry I Lecture / Lab	4
MATH 113	Pre-Calculus with Trigonometry I	3
ORIN 101	Freshman Orientation	1
IGED 110	Foundation Writing I	3
Sub – Total		15

Year 1: Semester 2		
BIOL 101/103	Biological Sciences I Lecture / Lab	4
CHEM 112/14	General Chemistry II Lecture / Lab	4
MATH 114	Pre-Calculus with Trigonometry II	3
GEOG 104	World Physical Geography	3
IGED 111	Foundation Writing II	3
Sub – Total		17

Year 2: Semester 3		
APCT 104/105	Intro to Applications of Computers Lecture / Lab	3
CHEM 231/233	Organic Chemistry I Lecture / Lab	5
IGED 130	Foundation Oral Communication	3
IGED 140	Foundation Ethics	3
Sub – Total		14

Year 2: Semester 4		
ENSC 250/251	General Ecology Lecture / Lab	4
CHEM 232/234	Organic Chemistry II Lecture/ Lab	5
MATH 185	Elementary Statistics	3
IGED 210	Discovery Writing	3
Sub – Total		15

Year 3: Semester 5		
ENSC352/353	Sustainable Agriculture Lecture / Lab	4
CSCI 490	Special Topics in Computer Science	3
IGED 270	Discovery Diversity	3
	Elective (300 Level/above)	3
	Elective (300 Level/above)	2
Sub – Total		15

Year 3: Semester 6		
ENSC 357	Urban Sustainability	3
BGMT 319	Business Ethics	3
URST 335	Urban Political Economy	3
IGED 280	Discovery Civics	3
	Elective (300 Level/above)	3
Sub – Total		15

Year 4: Semester 7		
ENSC 450/451	Environmental Health Lecture / Lab	4
ENSC 452/453	Air Pollution Lecture / Lab	4
ENSC 456	Research Methodology	1
GEOG 470	Advanced Desktop GIS	3
URST 405	Urban Policy Analysis	3
IGED 391	Frontier Capstone I	1
Sub – Total		16

Year 4: Semester 8		
ENSC 460	Climate change and Carbon Reduction	3
ENSC 461	Environmental Policy	3
ENSC 470	Senior Project	3
ENSC 471	Internship	3
IGED 392	Frontier Capstone II	2
	Elective (300 Level/above)	2
Sub – Total		16



## Environmental Science and Urban Sustainability

### Bachelor of Sciences in Environmental Science: Urban Sustainability Concentration

#### Program Requirements for the Major

##### Interdisciplinary General Education Requirements

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 250	Discovery Technology	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
IGED 391	Frontier Capstone I	1
IGED 392	Frontier Capstone II	2
ORIN 101	Freshman Orientation	1
MATH 113	Pre-Calculus with Trigonometry I ( <i>Satisfies IGED 120</i> )	3
MATH114	Pre-Calculus with Trigonometry II ( <i>Satisfies IGED 220</i> )	3
BIOL 101	Biological Science Lecture ( <i>Satisfies IGED 260</i> )	3
BIOL 103	Biological Science I Lab (Lecture + Lab)	1
ENSC 470	Senior Project ( <i>satisfies the writing in the major</i> )	3

##### Program Core Requirements:

ENSC 105	Environmental and Sustainability	3
ENSC 145	Introduction to Environmental Science Lecture	3
ENSC 146	Introduction to Environmental Science Lab	1
ENSC 221	Wastewater Technology Lecture	3
ENSC 223	Wastewater Technology Lab	1
ENSC 225	Environmental Studies and Sustainability	3
ENSC 250	General Ecology Lecture	3
ENSC 251	General Ecology Lab	1
ENSC 324	General Soils Lecture/Lab	4
ENSC 352	Sustainable Agriculture Lecture	3
ENSC 353	Sustainable Agriculture Lab	1
ENSC 354	Environmental Toxicology Lecture	3
ENSC 355	Environmental Toxicology Lab	1
ENSC 357	Urban Sustainability Lecture	3
ENSC 359	Urban Water Quality Management	3
ENSC 448	Environmental Field Problems	4
ENSC 450	Environmental Health Lecture	3
ENSC 451	Environmental Health Lab	1
ENSC 452	Air Pollution Lecture	3
ENSC 453	Air Pollution Lab	1
ENSC 456	Research Methodology	1
ENSC 457	Aquatic Ecology Lecture	3
ENSC 458	Aquatic Ecology Lab	1
ENSC 459	Hydrodynamics and Water Quality Lecture	3
ENSC 460	Climate Change and Carbon Reduction Lecture	3
ENSC 461	Environmental Policy Lecture	3
ENSC 470	Senior Project ( <i>Satisfied Writing Intensive course</i> )	3
ENSC 471	Internship	3

#### APPROVED PROGRAM ELECTIVES

A total of 10 credits are required from the following list of directed and free electives.

##### Urban Sustainability Concentration:

ENSC 354	Environmental Toxicology Lecture	3
ENSC 355	Environmental Toxicology Lab	1
ENSC 448	Environmental Field Problems	3
ENSC 459	Hydrodynamics and Water Quality	3
GEOG 475	Urban Environmental Information Systems (GIS)	3
CVEN 325	Hydrology and Hydraulics Lecture	3
CVEN 327	Hydrology and Hydraulics Lab	1
NUFS 322	Nutrition Assessment Lecture	3
NUFS 323	Nutrition Assessment Lab	1
FDSC 453	Food Analysis Lecture	3
FDSC 455	Food Analysis Lab	1

##### Free Electives

ENSC 105	Environment and Sustainability	3
ENSC 250	Environmental Studies and Sustainability	3
ENSC 359	Urban Water Quality Management (Lecture / Lab)	



## ***Environmental Science and Urban Sustainability***

### **Bachelor of Sciences in Environmental Science: Urban Sustainability Concentration**

#### ***Model Plan of Study***

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the program core in a satisfactory amount of time.

*Credit Hours Required: 123*

<b>Year 1: Semester 1</b>		
ENSC 145/146	Intro Environmental Science Lecture /Lab	4
CHEM 111/13	General Chemistry I Lecture / Lab	4
MATH 113	Pre-Calculus with Trigonometry I	3
ORIN 101	Freshman Orientation	1
IGED 110	Foundation Writing I	3
Sub – Total		15

<b>Year 1: Semester 2</b>		
BIOL 101/103	Biological Sciences I Lecture / Lab	4
CHEM 112/14	General Chemistry II Lecture / Lab	4
MATH 114	Pre-Calculus with Trigonometry II	3
GEOG 104	World Physical Geography	3
IGED 111	Foundation Writing II	3
Sub – Total		17

<b>Year 2: Semester 3</b>		
APCT 104/105	Intro to Applications of Computers Lec. / Lab	3
CHEM 231/233	Organic Chemistry I Lecture / Lab	5
IGED 130	Foundation Oral Communication	3
IGED 140	Foundation Ethics	3
Sub – Total		14

<b>Year 2: Semester 4</b>		
ENSC 250/251	General Ecology Lecture / Lab	4
CHEM 232/234	Organic Chemistry II Lecture/ Lab	5
MATH 185	Elementary Statistics	3
IGED 210	Discovery Writing	3
Sub – Total		15

<b>Year 3: Semester 5</b>		
ENSC352/353	Sustainable Agriculture Lecture / Lab	4
CSCI 490	Special Topics in Computer Science	3
IGED 270	Discovery Diversity	3
IGED 250	Discovery Technology	3
	Elective (300 Level/above)	2
	Sub – Total	15

<b>Year 3: Semester 6</b>		
ENSC 357	Urban Sustainability	3
BGMT 319	Business Ethics	3
URST 335	Urban Political Economy	3
IGED 280	Discovery Civics	3
	Elective (300 Level/above)	3
	Sub – Total	15

<b>Year 4: Semester 7</b>		
ENSC 450/451	Environmental Health Lecture / Lab	4
ENSC 452/453	Air Pollution Lecture / Lab	4
ENSC 456	Research Methodology	1
GEOG 470	Advanced Desktop GIS	3
URST 405	Urban Policy Analysis	3
IGED 391	Frontier Capstone I	1
	Sub – Total	16

<b>Year 4: Semester 8</b>		
ENSC 460	Climate change and Carbon Reduction	3
ENSC 461	Environmental Policy	3
ENSC 470	Senior Project	3
ENSC 471	Internship	3
IGED 392	Frontier Capstone II	2
	Elective (300 Level/above)	2
	Sub – Total	16
<b>Total Credit Hours:</b>		<b>123</b>



## Environmental Science and Urban Sustainability

### Bachelor of Sciences in Environmental Science: Water Quality Concentration

#### Program Requirements for the Major

Credit Hours Required: 123

#### Interdisciplinary General Education Requirements

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 250	Discovery Technology	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
IGED 391	Frontier Capstone I	1
IGED 392	Frontier Capstone II	2
ORIN 101	Freshman Orientation	1
MATH 113	Pre-Calculus with Trigonometry I (Satisfies IGED 120)	3
MATH 114	Pre-Calculus with Trigonometry II (Satisfies IGED 220)	3
BIOL 101	Biological Science Lecture (Satisfies IGED 260)	3
BIOL 103	Biological Science I Lab (Lecture + Lab)	1
ENSC 470	Senior Project (satisfies the writing in the major)	3

#### APPROVED PROGRAM ELECTIVES

A total of 10 credits are required from the following list of directed and free electives

#### Water Quality Concentration:

ENSC 460	Climate Change and Carbon Red	3
ENSC 448	Environmental Field Problems	3
GEOG 475	Urban Environmental Information Systems (GIS)	3
CVEN 325	Hydrology and Hydraulics Lecture	3
CVEN 327	Hydrology and Hydraulics Lab	1
NUFS 322	Nutrition Assessment Lecture	3
NUFS 323	Nutrition Assessment Lab	1
FDSC 453	Food Analysis Lecture	3
FDSC 455	Food Analysis Lab	1

#### Free Electives

ENSC 105	Environment and Sustainability	3
ENSC 250	Environmental Studies and Sustainability	3
ENSC 359	Urban Water Quality Management (Lecture / Lab)	

#### Program Core Requirements:

ENSC 105	Environmental and Sustainability	3
ENSC 145	Introduction to Environmental Science Lecture	3
ENSC 146	Introduction to Environmental Science Lab	1
ENSC 221	Wastewater Technology Lecture	3
ENSC 223	Wastewater Technology Lab	1
ENSC 225	Environmental Studies and Sustainability	3
ENSC 250	General Ecology Lecture	3
ENSC 251	General Ecology Lab	1
ENSC 324	General Soils Lecture/Lab	4
ENSC 352	Sustainable Agriculture Lecture	3
ENSC 353	Sustainable Agriculture Lab	1
ENSC 354	Environmental Toxicology Lecture	3
ENSC 355	Environmental Toxicology Lab	1
ENSC 357	Urban Sustainability Lecture	3
ENSC 359	Urban Water Quality Management	3
ENSC 448	Environmental Field Problems	4
ENSC 450	Environmental Health Lecture	3
ENSC 451	Environmental Health Lab	1
ENSC 452	Air Pollution Lecture	3
ENSC 453	Air Pollution Lab	1
ENSC 456	Research Methodology	1
ENSC 457	Aquatic Ecology Lecture	3
ENSC 458	Aquatic Ecology Lab	1
ENSC 459	Hydrodynamics and Water Quality Lecture	3
ENSC 460	Climate Change and Carbon Reduction Lecture	3
ENSC 461	Environmental Policy Lecture	3
ENSC 470	Senior Project (Satisfied Writing Intensive course)	3
ENSC 471	Internship	3



## ***Environmental Science and Urban Sustainability***

### **Bachelor of Sciences in Environmental Science: Water Quality Concentration**

#### ***Model Plan of Study***

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the program core in a satisfactory amount of time.

*Credit Hours Required: 123*

<b>Year 1: Semester 1</b>		
ENSC 145/146	Intro Environmental Science Lecture / Lab	4
CHEM 111/13	General Chemistry I Lecture / Lab	4
MATH 113	Pre-Calculus with Trigonometry I	3
ORIN 101	Freshman Orientation	1
IGED 110	Foundation Writing I	3
Sub – Total		<b>15</b>
<b>Year 1: Semester 2</b>		
BIOL 101/103	Biological Sciences I Lecture / Lab	4
CHEM 112/14	General Chemistry II Lecture / Lab	4
MATH 114	Pre-Calculus with Trigonometry II	3
GEOG 104	World Physical Geography	3
IGED 111	Foundation Writing II	3
Sub – Total		<b>17</b>
<b>Year 2: Semester 3</b>		
APCT 104/105	Intro to Applications of Computers Lecture / Lab	3
CHEM 231/233	Organic Chemistry I Lecture / Lab	5
IGED 130	Foundation Oral Communication	3
IGED 140	Foundation Ethics	3
Sub – Total		<b>14</b>
<b>Year 2: Semester 4</b>		
ENSC 221/223	Water Technology Lecture / Lab	4
CHEM 232/234	Organic Chemistry II Lecture/ Lab	5
MATH 185	Elementary Statistics	3
IGED 210	Discovery Writing	3
Sub – Total		<b>15</b>

<b>Year 3: Semester 5</b>		
ENSC 352/353	Sustainable Agriculture Lecture / Lab	4
CSCI 490	Special Topics in Computer Science	3
IGED 270	Discovery Diversity	3
	Elective (300 Level/above)	3
	Elective (300 Level/above)	2
Sub – Total		<b>15</b>
<b>Year 3: Semester 6</b>		
ENSC 354/355	Environmental Toxicology Lecture / Lab	4
ENSC 357	Urban Sustainability	3
CVEN 325	Hydrology & Hydraulics	3
URST 335	Urban Political Economy	3
IGED 280	Discovery Civics	3
Sub – Total		<b>16</b>
<b>Year 4: Semester 7</b>		
ENSC 450/451	Environmental Health Lecture / Lab	4
ENSC 459	Hydrodynamics and Water Quality	3
ENSC 456	Research Methodology	1
GEOG 470	Advanced Desktop GIS	3
CSCI 490	Special Topics in Computer Science	3
IGED 391	Frontier Capstone I	1
Sub – Total		<b>15</b>
<b>Year 4: Semester 8</b>		
ENSC 457/458	Aquatic Ecology Lecture / Lab	4
ENSC 461	Environmental Policy	3
ENSC 470	Senior Project	3
ENSC 471	Internship	3
IGED 392	Frontier Capstone II	2
	Elective (300 Level/above)	2
Sub – Total		<b>16</b>
<b>Total Credit Hours:</b>		<b>123</b>



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**Environmental Science and Urban Sustainability**

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**Professional Science Master's Degree in Water Resources Management**

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The Professional Science Master's Degree in Water Resources Management requires completion of the following four-semester curriculum, including 35 total credits.

FIRST SEMESTER		
COURSE	TITLE	CREDITS
WTRM-500	Water Quality Assessment, Monitoring & Treatment	3
WTRM-501	Surface & Ground water Hydrology	3
MATH-599	RESEARCH METHODS, statistics and data mining	3
TOTAL		9
SECOND SEMESTER		
COURSE	TITLE	CREDITS
WTRM-504	Ethics, Responsible Conduct of Research & Prof. Responsibility	3
WTRM-505	GIS for Water Resource Management	3
WTRM-601	Water Quality Modeling	3
MMED-520	Public communication for STEM professionals	3
TOTAL		10
THIRD SEMESTER		
COURSE	TITLE	CREDITS
WTRM-600	Stream Restoration	3
WTRM-503	Enviro. Impact Assessment: Integrated project	3
ISTH-595	sustainable entrepreneurship	3
TOTAL		9
FOURTH SEMESTER		
COURSE	TITLE	CREDITS
WTRM-699	Capstone Seminar	1
WTRM-690	Internship	3
BGMT-509	the systems approach and project management	3
TOTAL		7
Professional Science Master's Degree in Water Resources Management Total 35		

***Note: Students are required to take a writing proficiency course and a writing proficiency test before graduating.***



## Health Education

### The Bachelor of Science Degree in Health Education

The Health Education Program prepares competent entry-level public health practitioners to meet the public health-related needs of the diverse citizenry of the District of Columbia and for society at large. Graduates are able to practice in a variety of settings in the public health domain from public health educators to wellness center directors.

The Bachelor of Science Degree in Health Education, public health options requires a minimum of 120 semester hours, the final 30 of which must be in residence at the University. Completion of all Interdisciplinary general education requirements identified on the program of study and completion of all courses identified on the program of study with a minimum grade of "C" in all major courses, "C" grade in ancillary science courses, and a 2.5 cumulative grade point average in all major courses.

New students (Freshman Level or Transfer) admitted to the University who indicate an interest in Health Education, the public health option should report to the Health Education Program for advisement.

Continuing students who are Health Education- public health majors are to see their advisors prior to the early registration period each semester for academic counseling. Students should make appointments with their faculty advisor for academic counseling at least once per semester to facilitate optimal progression through the program. This counseling should be completed prior to the regular registration periods.

#### Credit Statement:

The BS program in Health Education requires completing a total of 120 credit hours of college-level courses in order to graduate.

#### Residency Statement:

The Bachelor of Science Degree in Health Education, public health options requires a minimum of 120 semester hours, the final 30 of which must be in residence at the University.

#### Department Policy Changes

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

### Program Requirements for the Major

#### Interdisciplinary General Education Requirements

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 120	Quantitative Reasoning I	3
IGED 220	Quantitative Reasoning II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 250	Discovery Technology	3
IGED 260	Discovery Science Lec/Lab	4
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
IGED 391	Frontier Capstone I	1
IGED 392	Frontier Capstone II	2
ORIN 101	Freshman Orientation	1
HLTH 494	Senior Project ( <i>satisfies the writing in the major</i> )	3

#### Program Core Requirements

HLTH 104	Introductions to History and Philosophy of Health Physical Education	3
HLTH 105	Personal and Community Health	3
HLTH 204	Prevention First Aid EMS	3
HLTH 214	Survey of Public Health	3
HLTH 314	Public Health Planning	3
HLTH 324	Organizations/Administration of School & Community Health Programs	3
HLTH 390	Health Education Practicum	3
HLTH 404	Mental Health	3
HLTH 405	Health and Safety in Community Populations	3
HLTH 406	Consumer Health	3
HLTH 417	Health Education Internship	4
HLTH 424	Sex Education	3
HLTH 426	Drug Use and Abuse	3
HLTH 465	Measurements and Evaluation	3
HLTH 493	Seminar: Health Issues	3
HLTH 494	Senior Project (intensive writing course)	3
HLTH 111	Tennis I: Beginning	1
HLTH 112	Tennis II: Intermediate	1
HLTH 119	Golf	1
HLTH 121	Swimming and Beginning Water Safety	1
HLTH 122	Swimming: Intermediate	1





## Health Education

### The Bachelor of Science Degree in Health Education

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the program core in a satisfactory amount of time.

#### Bachelor of Science in Health Education

Credit Hours Required: 122

Year 1: Semester 1		
IGED 110	Foundations of Writing I	3
IGED 120	Foundation of Quantitative Reasoning I	3
HLTH 104	Intro to History/Philosophy of Health Phys	3
IGED 260	Discovery Science Lecture / Lab	3
HLTH	Skills Elective ( Tennis I, Golf, of Swimming I)	1
Sub – Total		14

Year 1: Semester 2		
IGED 111	Foundation Writing II	3
IGED 220	Discovery Quantitative Reasoning	3
BIOL 111/113	Human Anatomy & Physiology I Lecture / Lab	4
HLTH 105	Personal & Community Health	3
IGED 130	Foundation of Oral Communication	3
Sub – Total		16

Year 2: Semester 3		
IGED 210	Discovery Writing	3
*SPAN 101	Foreign Language I *Spanish recommended for Public Health	3
BIOL 112/114	Human Anatomy & Physiology II Lecture / Lab	4
HLTH 214	Survey of Public Health	3
PSYC 201	Principles of Psychology	3
Sub-Total		16

Year 2: Semester 4		
IGED 270	Discovery Diversity	3
FDSC 104/106	Introduction to Nutrition Lecture / Lab	4
HTLH 204	Prevention First Aid EMS	3
*SPAN 202	Foreign Language II*Spanish recommended for Public Health	3
IGED 140	Foundation Ethics	3
Sub – Total		16

Year 3: Semester 5		
IGED 250	Discovery Technology	3
BIOL 241/240	General Microbiology Lecture / Lab	4
HLTH 314	Public Health Planning	3
HLTH 324	Org/Adm of School & Community Health Programs	3
HLTH	Skills Elective ( Tennis II, Golf, of Swimming II)	1
Sub – Total		14

Year 3: Semester 6		
ENSC 450/451	Environmental Health Lecture / Lab	4
HLTH 424	Sex Education	3
HLTH 390	Health Education Practicum	3
IGED 280	Discovery Civics	3
	Business Elective	3
Sub – Total		16

Year 4: Semester 7		
HLTH 405	Health/Safety in Community Populations	3
HTLH 426	Drug Use and Abuse	3
HLTH 465	Measurement and Evaluation	3
HTLH 494	Senior Project (Capstone in the major)	3
HLTH	Skills Elective ( Tennis, Golf, of Swimming )	1
IGED 391	Frontier Capstone I	1
Sub – Total		14

Year 4: Semester 8		
HLTH 404	Mental Health	3
HLTH 406	Consumer Health	3
HLTH 417	Internship	4
HLTH 493	Seminar: Health Issues	3
HLTH	Skills Elective ( Tennis, Golf, of Swimming )	1
IGED 392	Frontier Capstone II	2
Sub – Total		16
Total Credit Hours:		122



## Nursing Completion Program Registered Nurse to Bachelor of Science

### Bachelor of Science Degree in Nursing

The BSN program at UDC offers a rigorous academic and experiential course of study, which prepares competent and compassionate practitioners to help District residents and society at large overcome health care challenges and disparities common to an urban environment. Graduates will possess the knowledge, skills, values, meaning, and experience to deliver, manage, and lead nursing care to all age groups in the variety of settings and participate in personal and professional activities of lifelong learning.

The RN-to-BSN program consists of two levels - the junior level and the senior level. Both levels consist of two semesters. Thus, the revised program continues to be two years in length. Students may enter the junior level of the program while completing prerequisite general education courses. The student may also enter the new program of study in the fall or spring semester but must complete all general education and junior level courses before advancement to the senior level.

The level objectives are congruent and learner focused. The level objectives guide course content, scope and placement in the program of study and are incorporated into appropriate course and clinical objectives and assignments. All didactic and clinical courses incorporate some component of Webber's nursing KSVME framework.

RN-BSN program is accredited by the National League for Nursing.  
Total credit hours of college-level courses required for graduation:  
**120**

- The Bachelor of Science Degree in Nursing requires a minimum of 120 semester hours, the final 30 of which must be in residence at the University.
- Must complete 60 semester credit hours of associate level courses by enrollment or transfer credit.
- Completion of appropriate Interdisciplinary general education requirements (see list below).
- Completion of all courses identified on the program of study a minimum grade of "C" in all major courses and maintains a 2.7 or greater on a 4.0 scale cumulative grade point average.
- Completion of all pre-requisite courses with a grade of "C" or higher
- Provides satisfactory recommendations
- Maintain eligibility for professional licensure in the DC metro area.

#### Program Requirements for Nursing (RN-to-BSN)

##### Interdisciplinary General Education Requirements

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 120	Quantitative Reasoning I	3
IGED 130	Foundation Oral Communications	3
IGED 210	Discovery Writing	3
IGED 220	Quantitative Reasoning II	3
IGED 250	Discovery Technology	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
IGED 391	Frontier Capstone I	1
IGED 392	Frontier Capstone II	2
CHEM 105	General Chemistry Lecture ( <i>Satisfies IGED 260</i> )	3
CHEM 106	General Chemistry I Lab (Lecture + Lab)	1
NURS 350	Ethical Issues in Health Care ( <i>Satisfies IGED 140</i> )	3
NURS 455	Nursing Research ( <i>Satisfies the writing in the major</i> )	3

##### Program Core Requirements

NURS 300	RN-to BSN Transition Course	3
NURS 301	Health Assessment Theory	2
NURS 302	Health Assessment Lab	2
NURS 345	Pathophysiology	3
NURS 350	Ethical Issues in Health Care	3
NURS 354	Gerontological Nursing Care	3
NURS 356	Legal Issues and Health Care Policy	3
NURS 305	Professional Nursing Issues in Practice Seminar	2
NURS 306	Professional Nursing Issues in Practice Practicum	2
NURS 449	Leadership and Management Theory	3
NURS 448	Leadership and Management Practicum	2
NURS 455	Nursing Research (intensive writing course)	3
NURS 464	Urban Community Health Issues Theory	3
NURS 465	Urban Community Health Issues Practicum	2
NURS 471	Clinical Preceptorship (Capstone) Seminar	2
NURS 472	Clinical Preceptorship (Capstone) Practicum	2



## Nursing Completion Program Registered Nurse to Bachelor of Science

### Bachelor of Science Degree in Nursing

#### Model Plan of Study

Pre-Requisite Associate Degree		
Course Number	Course Requirements	Credit
IGED 110 and 111	Foundation Writing I and II	6
IGED 120 and 220	Foundation Quantitative Reasoning I and II	6
IGED 130	Foundation Oral Communication	3
IGED	Sciences in AASN (Anatomy, Physiology, Microbiology, or Chemistry)	12
NURS 100-200	AASN Nursing Courses	30
<b>Total Associate Degree Pre-Requisites</b>		<b>57</b>

#### JUNIOR LEVEL GENERAL EDUCATION REQUIREMENTS

##### FALL or SPRING SEMESTER

	Elective(s)	4
IGED 210	Discovery Writing	3
IGED 250	Discovery Technology	3
IGED 260	Discovery Science Lecture and Lab	4
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
IGED 391 and 392	Frontier Exploration & Inquiry Capstone I and II	3
<b>General Education Baccalaureate Courses</b>		<b>23</b>

#### JUNIOR LEVEL NURSING COURSES

##### FALL SEMESTER

NURS 300	RN to BSN Transition Course	3
NURS 301	Health Assessment Theory	2
NURS 302	Health Assessment Lab	2
NURS 348	Pathophysiology	3
NURS 350	Ethical Issues in Health Care (Hybrid) - IGED 140 Substitute for Foundation Ethics	3
<b>Fall Semester Junior Level Nursing Courses</b>		<b>13</b>

#### JUNIOR LEVEL NURSING COURSES

##### SPRING SEMESTER

NURS 305	Professional Nursing Issues in Practice Seminar (Hybrid)	2
NURS 306	Professional Nursing Issues in Practice Practicum	2
NURS 354	Gerontological Nursing Theory	3
NURS 356	Legal Issues and Healthcare Policy	3
NURS 455	Nursing Research (intensive writing course)	3
<b>Spring Semester Junior Level Nursing Courses</b>		<b>13</b>

#### SENIOR LEVEL NURSING COURSES

NURS 449	Leadership and Management Theory	3
NURS 448	Leadership and Management Clinical	2
NURS 464	Urban Community Health Issues Theory (Hybrid)	3
NURS 465	Urban Community Health Issues Practicum	2
NURS 471	Clinical Preceptorship - Capstone Seminar	2
NURS 472	Clinical Preceptorship - Capstone Clinical	2
<b>Senior Level Nursing Courses</b>		<b>14</b>



## Nutrition and Food Science

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### Bachelor Degrees:

Bachelor of Science in Nutrition and Food Science

Concentration offerings:

- Dietetics
- Food Science

### Graduate Degree:

Master of Science in Nutrition and Dietetics

The Bachelor of Science in Nutrition and Food Science degree program requires completion of the following eight-semester curriculum, including 126 or 127 total credits, depending on the concentration. Students may choose from one of two concentrations: Dietetics and Food Science.

The Dietetics concentration constitutes UDC's Didactic Program in Dietetics (DPD), which fulfills the academic requirements for a student to become a Registered Dietitian (RD). The DPD at the University of the District of Columbia is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 800/877-1600. The mission of the DPD is to provide program graduates with the skills and knowledge to be confident and competent in their dietetic internship and serve as professionals capable of providing excellent entry-level dietetic services in community, food service, management, and clinical settings. The program offers an evidence-based curriculum that is comprehensive and provides for a variety of practicum experiences in the local community, and governmental organizations and promotes life-long learning, problem solving, and effectiveness and teamwork. Faculty members serve as mentors in both the academic and professional settings.

The B.S. degree with the Option in Nutrition and Dietetics is composed of a minimum of 126 credit hours that includes 31 credit hours of General Education, 58 credits of Core Courses and, 37 credits of Supportive Courses. The academic program at UDC is built upon strong science and liberal arts components, which encourage critical and creative thinking and expression. The organization of courses emphasizes study in chemistry and biology, nutrition, food science and technology, medical nutrition therapy, human organizational behavior, management, and other general education courses. The student desiring to enter the program should have a strong background in the physical and biological sciences as the scientific disciplines are emphasized.

The curriculum is developed within the conceptual framework of the accreditation standards and knowledge competencies for the dietetic profession set and published by the Academy of Nutrition and Dietetics. There are three steps to becoming a Registered Dietitian.

The first step in becoming a Registered Dietitian is to successfully complete the Didactic Program in Dietetics (DPD) at UDC. Once students complete the DPD, they will receive a Verification Statement signed by the Program Director.

The second step is to apply for, become accepted into, and successfully complete an approved dietetic internship (supervised practice experience). Alternatively, the graduates may complete ACEND approved program with a supervised practice component. The Verification Statement issued at completion of the DPD is required for application to the Dietetic Internship. Upon completion of the Dietetic Internship or other ACEND accredited program that provides supervised practice experience, the student will receive another Verification Statement signed by the Program Director. This will allow the student to sit for the National Registration Examination for Dietitian.

The third and the final step to becoming a Registered Dietitian is to pass the National Registration Examination for Dietitians.

### Accreditation and Associations:

The Dietetics concentration constitutes UDC's Didactic Program in Dietetics (DPD), which fulfills the academic requirements for a student to become a Registered Dietitian (RD). The DPD at the University of the District of Columbia is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), Academy of Nutrition and Dietetics

### Department Policy Changes

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

### Credit Statement:

The Bachelor of Science in Nutrition and Food Science degree program requires completion of the following eight-semester curriculum, including 126 total credits, depending on the concentration.



## Nutrition & Food Science

### Bachelor of Science Nutrition & Food Science: Food Science Concentration

#### Program Requirements

*Credit Hours Required: 127*

#### Interdisciplinary General Education Requirements

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 250	Discovery Technology	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
IGED 391	Frontier Capstone I	1
FDSC 490	Senior Seminar and Research (Satisfies IGED 392)	2
ORIN 101	Freshman Orientation	1
MATH 113	Pre-Calculus with Trigonometry I (Satisfies IGED 120)	3
MATH 114	Pre-Calculus with Trigonometry II (Satisfies IGED 220)	3
CHEM III	General Chemistry Lecture (Satisfies IGED 260)	3
CHEM 113	General Chemistry I Lab (Lecture + Lab)	1
FDSC 455	Food Analysis Lecture (intensive writing course)	3

#### Program Core Requirements:

FDSC-103	Introduction to Food Science Lab	1
FDSC-104	Introduction to Nutrition Lab	1
FDSC-105	Introduction to Food Science Lecture	3
FDSC-106	Introduction to Nutrition Lecture	3
NUFS-313	Nutrition in the Life Cycle	3
FDSC-209	Food Processing Lab	3
FDSC-211	Food Processing I Lecture	3
NUFS-320	Nutrition Education Lecture	3
NUFS-321	Nutrition Education Lab	1
FDSC-415	Food Engineering Lecture	3
FDSC-416	Food Engineering Lab	1
NUFS-314	Community Nutrition Lab	1
NUFS-316	Community Nutrition Lecture	3
FDSC-442	Food Chemistry Lab	1
FDSC-444	Food Chemistry Lecture	3
FDSC-326	Food Microbiology Lecture	3
FDSC-328	Food Microbiology Lab	1
NUFS-322	Nutrition Assessment Lecture (intensive writing course)	3
NUFS-323	Nutrition Assessment Lab	1
FDSC 453	Food Analysis Lab	1
FDSC455	Food Analysis Lecture	3
NUFS-426	Food Systems Management I Lecture	2
NUFS-427	Food Systems Management II Lecture	2
NUFS-428	Food Systems Management I Lab	1
NUFS-429	Food Systems Management II Lab	1
FDSC-490	Senior Seminar and Research (satisfies IGED 392)	2
FDSC-324/325	Food Food Sanitation and Waste Disposal Lec/Lab	4
NUFS-317	Advanced Nutrition	3

#### Model Programs of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the program core in a satisfactory amount of time.

#### BS Nutrition & Food Science: Food Science Concentration

*Credit Hours Required: 127*

Year 1: Semester 1 / Total Credits: 17		
FDSC 106/104	Intro to Nutrition Lecture / Lab	4
IGED 110	Foundation Writing I	3
MATH 113	Pre-Calculus with Trigonometry I	3
CHEM 111/113	General Chemistry I Lecture / Lab	4
IGED 130	Foundation Oral Communication	3
Year 1: Semester 2 / Total Credits: 18		
FDSC 105/103	Intro to Food Science Lecture/ Lab	4
IGED 111	Foundation Writing II	3
CHEM 112/114	General Chemistry II Lecture / Lab	4
NUFS 313	Nutrition in the Life Cycle	3
MATH 215	Calculus for Business, Soc and Life Sciences	4
Year 2: Semester 3 / Total Credits: 16		
BIOL 111/113	Fund of Anatomy & Physiology I Lecture / Lab	4
NUFS 320/321	Nutrition Education Lecture / Lab	4
CHEM 231/233	Organic Chemistry I Lecture / Lab	5
IGED 210	Discovery Writing	3
Year 2: Semester 4 / Total Credits: 16		
FDSC 209/211	Food Processing Lecture / Lab	4
PHYS 101/103	Intro to College Physics I Lecture / Lab	4
CHEM 232/234	Organic Chemistry II Lecture / Lab	5
IGED 140	Foundation of Ethics	3
Year 3: Semester 5 / Total Credits: 17		
IGED 250	Discovery Technology	3
BIOL 241/240	General Microbiology Lecture / Lab	4
FDSC 415/416	Food Engineering Lecture / Lab	4
NUFS 316/314	Community Nutrition Lecture / Lab	4
Year 3: Semester 6 / Total Credits: 18		
NUFS 317	Advanced Nutrition	3
FDSC 324/325	Food Sanitation and Waste Disposal Lec. /Lab	4
FDSC 444/445	Food Chemistry Lecture / Lab	4
FDSC 326/328	Food Microbiology Lecture / Lab	4
IGED 270	Discovery Diversity	3
Year 4: Semester 7 / Total Credits: 13		
NUFS 322/323	Nutrition Assessment Lecture / Lab	4
MATH 185	Elementary Statistics	3
NUFS 426/428	Food Systems Management I Lecture / Lab	3
IGED 280	Discovery Civics	3
Year 4: Semester 8 / Total Credits: 14		
IGED 391	Frontier Capstone I	1
FDSC 490	Senior Seminar and Research*	2
BIO 101/103	Biological Science I Lec/Lab	4
NUFS 427/429	Food Systems Management II Lecture / Lab	3
FDSC 453/455	Food Analysis Lecture / Lab	4

**Total Credit Hours: 127**

\*FDSC-490 SENIOR SEMINAR AND RESEARCH SUBSTITUTES IGED-392



## Nutrition & Food Science

### Bachelor of Science Nutrition & Food Science: Dietetics Concentration

#### Program Course Requirements

##### Interdisciplinary General Education Requirements

IGED 110	Foundation Writing I	3
IGED III	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 250	Discovery Technology	3
IGED 270	Discovery Diversity	3
IGED280	Discovery Civics	3
IGED391	Frontier Capstone I	1
FDSC 490	Senior Seminar and Research (Satisfies ICED 392)	2
ORIN 101	Freshman Orientation	1
MATH 113	Pre-Calculus with Trigonometry I (Satisfies ICED J20)	3
MATH 114	Pre-Calculus with Trigonometry II (Satisfies ICED 220)	3
CHEM III	General Chemistry Lecture (Satisfies ICED 260)	3
CHEM 113	General Chemistry I Lab (Lecture + Lab)	1
FDSC 455	Food Analysis, Lecture (Intensive writing course)	3

##### Program Core Requirements:

##### Dietetics Option

FDSC-103	Introduction to Food Science Lab	1
FDSC-104	Introduction to Nutrition Lab	1
FDSC-105	Introduction to Food Science Lecture	3
FDSC-106	Introduction to Nutrition Lecture	3
FDSC-209	Food Processing Lab	3
FDSC-211	Food Processing I Lecture	3
FDSC-442	Food Chemistry Lab	1
FDSC-444	Food Chemistry Lecture	3
NUFS-313	Nutrition in the Life Cycle	3
NUFS-314	Community Nutrition Lab	1
NUFS-316	Community Nutrition Lecture	3
NUFS-317	Advanced Nutrition/Nutritional Biochemistry	3
NUFS-320	Nutrition Education Lecture	3
NUFS-321	Nutrition Education Lab	1
NUFS-322	Nutrition Assessment Lecture (intensive writing course)	3
NUFS-323	Nutrition Assessment Lab	1
NUFS-374	Geriatric Nutrition Lecture	2
NUFS-375	Geriatric Nutrition Lab	1
NUFS-421	Therapeutic Nutrition I Lecture	3
NUFS-422	Therapeutic Nutrition II Lecture	3
NUFS-423	Therapeutic Nutrition I Lab	1
NUFS-424	Therapeutic Nutrition II Lab	1
NUFS-426	Food Systems Management I Lecture	2
NUFS-427	Food Systems Management II Lecture	2
NUFS-428	Food Systems Management I Lab	1
NUFS-429	Food Systems Management II Lab	1
FDSC-490	Senior Seminar and Research	2

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the program core in a satisfactory amount of time.

#### Bachelor of Science in Nutrition and Food Science: Dietetics Option

Credit Hours Required: 125

##### Year 1: Semester 1 / Total Credits: 17

FDSC 106/104	Intro to Nutrition Lecture / Lab	4
IGED 110	Foundation Writing I	3
MATH 113	Pre-Calculus with Trigonometry I	3
CHEM 111/113	General Chemistry I Lecture / Lab	4
IGED 130	Foundation Oral Communication	3

##### Year 1: Semester 2 / Total Credits: 17

FDSC 105/103	Intro to Food Science Lecture/ Lab	4
IGED 111	Foundation Writing II	3
CHEM 112/114	General Chemistry II Lecture / Lab	4
NUFS 313	Nutrition in the Life Cycle	3
MATH 114	Pre-Calculus with Trigonometry I	3

##### Year 2: Semester 3 / Total Credits: 16

NUFS 314/316	Community Nutrition Lecture/ Lab	4
BIOL 111/113	Fund of Anatomy & Physiology I Lecture / Lab	4
CHEM 231/233	Organic Chemistry I Lecture/Lab	5
IGED 210	Discovery Writing	3.

##### Year 2: Semester 4 / Total Credits: 16

FDSC 209/211	Food Processing Lecture / Lab	4
BIOL 112/114	Fund of Anatomy & Physiology II Lecture / Lab	4
CHEM 232/234	Organic Chemistry II Lecture / Lab	5
IGED 140	Foundation of Ethics	3

##### Year 3: Semester 5 / Total Credits: 17

NUFS 322/323	Nutrition Assessment Lecture / Lab	4
NUFS 320/321	Nutrition Education Lecture / Lab	4
CHEM 461/463	Biochemistry Lecture / Lab	5
BIOL 241/240	General Microbiology Lecture / Lab	4

##### Year 3: Semester 6 / Total Credits: 16

NUFS 317	Advanced Nutrition	3
MATH 185	Elementary Statistics	3
FDSC 444/445	Food Chemistry Lecture / Lab	4
IGED 250	Discovery Technology	3
IGED 270	Discovery Diversity	3

##### Year 4: Semester 7 / Total Credits: 13

NUFS 374/375	Geriatric Nutrition Lecture / Lab	3
NUFS 421 / 423	Therapeutic Nutrition Lecture / Lab I	4
NUFS 426/428	Food Systems Management I Lecture / Lab	3
IGED 280	Discovery Civics	3

##### Year 4: Semester 8 / Total Credits: 13

IGED 391	Frontier Capstone I	1
NUFS 422/423	Therapeutic Nutrition II Lecture / Lab	4
NUFS 427/429	Food Systems Management II Lecture / Lab	3
FDSC 490	Senior Seminar and Research *	2
	Elective	3

**Total Credit Hours: 125**

\*FDSC-490 SENIOR SEMINAR AND RESEARCH SUBSTITUTES IGED-392

#### Model Plan of Study



## Nutrition & Food Science

### Masters of Science in Nutrition and Dietetics (MSND)

With emphasis on:

Public Policy, Communication and Clinical Research

The mission of the Nutrition and Dietetics Program at the University of the District of Columbia is to educate students majoring in nutrition and related disciplines and other fields to become leaders in the field of nutrition and public policy. The Graduate Program in Nutrition/ Dietetics is committed to providing students with a broad based culturally sensitive education to prepare them to promote public policies related to nutrition that will affect the well being of individual and groups locally, nationally and internationally.

The Department of Nutrition and Dietetics in the College of Agriculture, Urban Sustainability and Environmental Sciences, University of the District of Columbia established a [new Graduate Program in Nutrition/Dietetics in 2010](#). The mission of the Nutrition Program is to promote and develop leaders in Nutrition. The program provides leadership and a central focus for nutrition research and education in the District of Columbia. It enhances the quality and breadth of nutrition by integrating resources and expertise across departments and colleges.

The Program in Nutrition/Dietetics is intended for individuals interested in careers as public policy advocacy, community education; policy analysis, public policy evaluators and lobbyists, researchers; and managers of health service delivery organizations and systems, managed-care programs, and other population-based organizations. In congruence with the motto of the University of the District of Columbia "A NEW DAY AND A NEW OPPORTUNITY" the Department of Nutrition and Dietetics, which currently houses accredited DPD Program has designed an innovative educational Graduate Program. The program also provides opportunities for students of diverse educational backgrounds locally, nationally and internationally to enter the exciting field of Nutrition. The Masters Program in Nutrition and Dietetics is a personal and dynamic graduate program that emphasizes nutrition education and counseling, Communication and community involvement, while providing a solid grounding in nutrition science and clinical nutrition.

The MSND program's specific goals are:

- To recruit and offer opportunity for ethnically diverse students to complete their dietetic education that culminates in a graduate degree in Dietetics/Nutrition
- Graduate students with advocacy skills needed to shape public policy related to nutrition issues and health disparities in minorities.
- To retain and empower ethnically diverse students who will complete the graduate program in nutrition.
- To attract national and international students of diverse backgrounds to the new Graduate Program in dietetics at the University of the District of Columbia.

The Masters of Science in Nutrition/Dietetics (MSND) at the University of the District of Columbia is an innovative and dynamic program that broadens the scope of learning and teaching in the discipline of nutrition. The program provides a strong foundation in science and research, technology and information systems, and the scientific knowledge of nutrition with emphasis on public policy and communication. The program focuses on training health professionals to serve the health and nutritional needs of urban and international populations and to be leaders in effecting needed regulations and laws to reduce health disparities.

The anticipated time required for a student to complete the Masters of Science in Nutrition and Dietetics is 2 years. The Graduate Program requires 36 credit hours.

General Admission requirements to UDC can be accessed on [www.udc.edu](http://www.udc.edu).

Any student interested in the Graduate Program in Dietetics is encouraged to apply. Application information is available on our web page: [www.udc.edu/nutrition](http://www.udc.edu/nutrition).

Applications are considered on the basis of qualification of each applicant without regard to race, color, creed, sex or national origin. Students seeking admission to the Graduate Program must fulfill the general Admission policies of the University. Any student, local, national or international, interested in the Graduate Program is eligible to apply and will have to submit the following:

- Application Form
- Application Fee
- Three Letters of Recommendation
- GRE Score –The GRE score should be above 4.0.

If the GRE score is not above 4 the students are mandated to successfully complete the English Proficiency Writing course (ENGL-515) offered by the Department of English

- Satisfactorily completed a baccalaureate degree in nutrition/related field or from an accredited university
- Undergraduate minimum cumulative GPA of  $\geq 3.0$
- An official copy of the transcript of the applicant's academic undergraduate record. If the student attended more than one college/university attach copies of transcripts from ALL colleges or universities attended
- An essay as to how the student will contribute to improving the health status of the minority population by getting involved with the legislative process
- International students should provide evaluation by World Education Services.

NOTE: The last day for submitting the applications for fall is April 15th for the fall admission. Applications after this date may be considered, however, those received by April 15th will take priority. The Graduate Program will not admit students that are unprepared for the graduate program. Students completing the accredited DPD Program will be eligible to apply for the Graduate Program. Students holding degrees in majors other than nutrition are expected to complete the DPD knowledge requirements prior to applying to the Graduate Program.

All applications to the Graduate Program will undergo a two-phase review process.

Phase 1: Evaluation by the Graduate Selection Committee and  
Phase 2: Personal Interview.



## Nutrition & Food Science

### Masters of Science in Nutrition and Dietetics (MSND)

#### Program Curriculum

The two-year curriculum described below outlines the conceptual information that will deem necessary for a successful career in Nutrition and Dietetics. Students selected for the program work with leading experts in all areas of public health as they apply their education to real life scenarios. The program is designed to provide an opportunity for students of Nutrition and Dietetics to gain exposure to state-of-the-art public health information while furthering their knowledge and skills. The curriculum will be thoroughly reviewed annually to update the program. The curriculum outlined below is designed to be a multi-disciplinary course work taught mostly by the graduate faculty of the University of the District of Columbia.

The New Graduate Program will require 32 credit hours. The entire first year offers course work and the second year will comprise of course work, research and thesis submission.

#### Program Curriculum (36 Credits)

PSYC 534	Group Design and Intervention	3
NFSC 501	Nutritional Epidemiology	2
URST 515	Politics: Public Policy and Health Issue	3
PMGT 519	Public Policy Development and Implementation	3
MATH 551	Probability and Statistics	3
NFSC 520	Pharmacology for Nutrition Professional and Medical Nutrition Therapy III	3
NFSC 530	Medical Nutrition Therapy IV	3
MMED 521	Mass Media for Public Administration	3
TBA	Leadership in Organizations	3
NFSC 650	Nutrition Research Methods and Thesis	2
BIOL 690	Molecular Biology/Genetics(Lec)	3
BIOL 691	Molecular Biology /Genetics(lab)	1

#### Additionally, the following electives are recommended

NURS TBA	Ethics for Healthcare Professionals	3
NFSC 694	Contemporary Issues in Nutrition	2

#### Any other 500 level Course preferably in IT

#### Program Core Requirements

NUFS 501	Nutritional Epidemiology	2
NUFS 520	Medical Nutrition Therapy III	3
NUFS 530	Pharmacology for Nutrition Professionals, Medical Nutrition Therapy IV	3
NUFS 650	Nutrition Research Methods, Research and Thesis	2-6

#### Model Plan of Study

FIRST SEMESTER		
Course	Title	Credit
NUSF-520	Medical Nutrition Therapy III	3
MATH-551	Probability	3
URST-515	Politics: Pub. Policy & Health Issues	3
TOTAL		9

SECOND SEMESTER		
Course	Title	Credit
	Pharmacology for Nutr. Professionals Med.	
NUSF-530	Nutrition Therapy IV	3
CNSL- 534	Group Design and Intervention	3
PGMT- 519	Public Policy Development and Implementation	3
TOTAL		9

THIRD SEMESTER		
Course	Title	Credit
NUFS-501	Nutritional Epidemiology	2
BGMT-511	Leadership in Organization	3
BIOL -690	Molecular Biology / Genetics Lec.	3
BIOL-691	Molecular Biology / Genetics Lab	1
TOTAL		9

FOURTH SEMESTER		
Course	Title	Credit
	Nutrition Research Methods Research and Thesis	
NUFS-650	Thesis	6
MMED- 521	Mass Media for Public Administration	3
TOTAL		9

**MSND Program Total 36**

Note: *MATH-554: Statistics may be used as an alternative to MATH-551: Probability.*





## Division of Land-Grant Programs

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The Division of Land-Grant Programs of CAUSES offers research-based community education and professional certification programs that are delivered through five centers. Each of the CAUSES centers houses a number of programs and services that are designed to engage the communities and regions where we are located and to enrich the lives of District of Columbia residents. What follows is an overview of land-grant programs offered as well as detailed descriptions of each center's programs and services.

For more information about programs and services offered within CAUSES' Division of Land-Grant Programs, please call ☎ (202) 274-7115 or email [CAUSES@udc.edu](mailto:CAUSES@udc.edu).

### ***Center for Sustainable Development***

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Three broad themes guide the community education programs within the Center of Sustainable Development, including gardening and urban agriculture, green economy, and green infrastructure. All three themes recognize that sustainable development is complex; our programs and services must therefore prepare individuals and organizations for changing, complex conditions within the social, cultural, environmental, and economic systems that shape our local communities and our global connections. Our commitment is to build healthy, livable, equitable communities in the District of Columbia and beyond, whether your goal is to start a community cooperative, improve energy efficiency in your home or workplace, or grow your own vegetables.

- ***CRED Financial Planning & Literacy/FDIC Money Smart***
- ***Lead Abatement Training***
- ***DC Master Gardener Program***
- ***UDC Farmers Market***
- ***Waste Management Assessment***
- ***Environmental Literacy Assessment & Training***
- ***Urban Gardening & Forestry Outreach***

***CRED Financial Planning & Literacy/FDIC Money Smart*** programs offer financial planning and fiscal responsibility training designed for high school students starting in the 9th grade (CRED High School Financial Literacy) as well as adults of all ages (CRED Financial Planning). Utilizing a curriculum developed by the Federal Deposit Insurance Corporation, students participate in ten instructor-led training modules that cover a range of financial topics, including choosing and maintaining a checking account, the mechanics of budgeting, the importance of saving, and how to obtain and use credit effectively.

***DC Master Gardener Program*** seeks to enhance the ecological health and aesthetics of the urban environment by training District of Columbia residents to become Master Gardeners. Expert horticulturists and plant scientists teach the eight-week educational program, which includes a 50-hour service learning requirement working under a professional gardener. Upon completion of the program, graduates earn a Master Gardener Certificate.

***Environmental Literacy Training and Assessment*** provides technical assistance and tools to businesses, schools, and other organizations to improve and evaluate a range of competencies in environment and sustainability. Informed by CAUSES' research, teaching, and community outreach, our environmental literacy resources are designed to create greater depth of understanding and to measure competency across an array of topics.

***Lead Abatement Training*** seeks to remediate hazardous lead paint that persists within the District's built spaces. Our program is designed to provide contractors and inspectors with the knowledge and skills required to identify, remediate, and dispose of lead-based paints in order to reduce risks to human health and improve indoor environmental quality.

***UDC Farmers Market*** brings local, fresh, sustainable food to campus on Saturdays from mid-May to mid-November. Vendors include farmers, bakers, and artisans from the District, Maryland, Virginia, and Pennsylvania. UDC nutrition educators and chefs distribute information about food sold at the market and provide cooking demonstrations on site each week.

***Urban Gardening and Forestry Outreach*** provides District residents with information and training to support food gardens and promote tree health, with special consideration given to the unique challenges and opportunities of the urban context. Our programs relay the significance and many benefits of urban food production as well as the array of ecological benefits provided by city trees. Through publications, demonstrations, technical assistance, consultations, and workshops, residents are educated about community gardening, tree care, forestry niche crops, and invasive species that threaten the city and region.

***Waste Management Assessment*** partners with agencies and organizations to develop comprehensive approaches to materials management that go beyond the "three R's" to work toward zero-waste goals. Through trainings, consultations, and workshops our educators work to develop and implement strategies for increasing waste diversion rates, reducing overall waste, and engaging employees, students, and customers.



### ***Center for Nutrition, Diet and Health***

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CAUSES recognizes the critical need to combat systemic urban nutrition and health issues and engage citizens in collaborative efforts to improve community health. The Center for Nutrition, Diet and Health couples research and education to provide thought leadership and outreach in the areas of nutrition, diet, health, and food safety. The center is dedicated to educating residents on the benefits of a healthy lifestyle and ways to prevent obesity, heart disease, and other health threats. The Center for Nutrition, Diet and Health offers the following suite of programs and services aimed at improving District residents' quality of life.

- Kids Cooking Classes
- District of Columbia Water Blind Taste Testing Research Project
- Food Demonstrations
- and Cooking Classes
- Nutrition, Diet and
- Health Seminars
- Expanded Food and Nutrition Education Program (EFNEP)
- Food Safety Education
- Nutrition on Demand
- Supplemental Nutrition Assistance Program-Education (SNAP-Ed)
- Team Nutrition Project

**District of Columbia Professional Food Managers/Food Handler Certification Program** prepares food handlers for any of the accredited food managers' examinations including ServSafe, Exporior, and the National Registry of Food Safety Professionals exams. Topics include danger associated with food-borne illness, risk factors that contribute to food-borne disease outbreaks, characteristics of potentially hazardous foods, employee health and personal hygiene, safe food handling, equipment, facilities, and Hazard Analysis Critical Control points (HACCP). Individuals successfully completing the course are eligible to sit for the national exam.

**DC Water Blind Taste Testing Research Project** is designed to determine consumer preference consumption patterns related to drinking water. Using a double-blind procedure and various types of drinking water, the project conducts tasting events throughout the city and collects data on drinking water attitudes and behaviors.

**Expanded Food and Nutrition Education Program (EFNEP)** provides nutrition education to low-income adults with young children and youth with emphasis on the following topics: nutritional needs and cultural heritage of audience; nutrition knowledge, skills, and attitudes necessary to improve diets; planning for daily food needs; knowledge and practice in food selection and preparation; knowledge of financial management relating to family food budget, uneven incomes, and local food resources; use and care of equipment used for food preparation, storage, and utilization; food safety, health, and sanitation practices; food practices that reinforce personal development of family members; gardening and food production techniques; food preservation practices; maternal and infant nutrition education which complements other programs and information received from health delivery systems; body weight, food intake, health and fitness; and referrals to other resources and assistance programs.

**Farmers' Market Nutrition Education Program** provides nutrition education at point-of-purchase for market goers. The program also provides on-site food demonstrations using fresh produce from the market, nutrition education, recipes, and nutrition data for foods sold at markets.

**Food Demonstrations and Cooking Classes** provide interactive instruction on healthy cooking techniques, modifying favorite recipes to include healthier ingredients by reducing the sugar, sodium, and fat. Classes are open to the general public.

**Food Safety Education** train food service workers in proper food handling procedures consistent with industry- and regulatory-based standards. An interactive format provides practical, hands-on experience for students to learn best practices to prevent food-borne illness and reduce sanitary health threats.

**Kids Cooking Classes** provide children aged 2-5 years with hands-on cooking experiences. Demonstration foods include vegetables, fruits, whole grains, dairy, and protein. Research has shown that the more exposure preschool aged children have with healthy foods, the more likely they will be to engage in healthier lifestyle choices later in life.

**Nutrition, Diet and Health Seminars** are provided on range of topics and can be tailored to specific audience types including healthy and age-appropriate eating. Our educators include Registered (RD) and Licensed (LD) Dietitians and other food and nutrition experts.

**Nutrition on Demand** provides nutrition education upon the request of the community. Workshops and training sessions can be designed for any age group ranging from preschoolers to seniors and tailored to the health requirements of the requesting group. Using interactive cooking demonstrations, hands-on nutrition activities, grocery store tours, and seminars, Nutrition on Demand addresses a number of topics, including preventing chronic disease, understanding food labels, and planning meals based on USDA recommendations.

**Supplemental Nutrition Assistance Program-Education (SNAP-Ed)** provides education programs, behavior-change initiatives, and social marketing campaigns designed for individuals receiving or eligible for the Supplemental Nutrition Assistance Program (SNAP). SNAP-Ed programs and publications seek to increase healthy food and active lifestyle choices among District residents.

**Team Nutrition Project** works to improve children's lifelong eating and physical activity habits by providing training to child development centers and day care food service professionals. Funded by the US Department of Agriculture (USDA), the training utilizes the curriculum developed for USDA's MyPlate program and supports the Child and Adult Care Food Program (CACFP). The DC Team Nutrition Project Training Guide as well as videos, recipes, and other resources are provided to program participants.



### ***Center for 4-H and Youth Development***

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CAUSES is committed to building strong, vibrant communities of active and engaged citizens. The Center for 4-H and Youth Development develops innovative programs that emphasize experiential learning opportunities for young people and their families. Through “hands-on” interactive programming, participants develop life skills, leadership abilities, and an ethic of civic stewardship. The center offers the following programming to support and engage District youth.

- 4-H Clubs
- 4-H Summer Camp
- 4-H Living Interactive Family Education (LIFE)
- 4-H STEM
- 4-H International Network
- Environ Mentors
- LifeSmarts Consumer Education for Teenagers
- Operation Military Kids

**4-H Clubs** assist young people, ages five through nineteen, in developing knowledge, skills and attitudes that will enable them to become self-directing, responsible, productive citizens, and contributing members of society. The 4-H program educates youth in arts and sciences, health and fitness, science, technology, environmental science, math, sewing and fashion design, cooking and healthy eating and a host of other subject areas while encouraging fellowship and service opportunities. 4-H continues to develop new projects for its members to study beyond agriculture and animal husbandry, including photography, conservation, cooking, public speaking, various sports, history, art, and other pursuits.

**4-H Living Interactive Family Education (4-H LIFE)** is a youth development program that addresses the needs of children with incarcerated parents. The goal of the 4-H LIFE program is to provide a strong, healthy, and nurturing family environment while helping the incarcerated parents become positive role models. The program consists of three components, including parenting skills classes, monthly planning meetings, and family club meetings.

**4-H International Network** was launched to connect 4-Hers from around the world. Youth from US meet with 4-H Club members from other countries via Skype to compare environmental challenges in their communities and share potential solutions.

**4-H STEM** consists of specialized programs designed to introduce and encourage participation in Science, Technology, Engineering, and Math disciplines among youth in the District of Columbia. The program is supported by the Alteria Foundation through the National 4-H Council and works collaboratively with UDC’s STEM Center.

**4-H Summer Camp** consists of hands-on learning projects designed for enrichment during the summer months. Located on the campus of the University of the District of Columbia, the camp includes opportunities for youth to explore new learning projects, develop new friendships, practice healthy eating and exercise, and have plenty of fun.

**EnvironMentors** is a sustainability-focused mentoring program which engages youth leaders in becoming active stewards of their communities and the environment. Over the course of the school year, students work with mentors to develop rigorous environmental science projects based on relevant environmental circumstances in their communities. Upon completion of their chosen research projects, they develop lesson plans and present to an elementary school class, science fairs, and at the annual EnvironMentors Science Fair where they have a chance to compete for college scholarships.

**LifeSmarts Consumer Education for Teenagers** creates savvy consumers and develops marketplace skills among teens in a fun and engaging format. Complementing high school curricula, Lifesmarts is run as a game-show style competition for 9<sup>th</sup> through 12<sup>th</sup> grade students.

**Operation Military Kids** serves children of deployed parents by hosting special events and training sessions to mobilize a support network consisting of youth, parents, and educators. “Ready, Set, Go” training is offered to educate communities about the needs of military families in the deployment cycle. The program also distributes “Hero Packs,” Operation Military Kids-branded backpacks filled with a variety of items from partner agencies and local businesses, provided to military youth as a way of communicating thanks for the sacrifices that they make while their parents are deployed.



### ***Institute of Gerontology***

The Institute of Gerontology was established with two goals in mind: to introduce interdisciplinary courses in gerontology into the University curriculum and to create a community resource for improving the lives of the urban elderly. In keeping with the goals of the University, special efforts by the Institute are directed toward identifying the problems of African-American and other minority aged and training professionals to work with them. The academic program of the Institute is directed towards providing the expertise essential for employment opportunities for university trained workers in services for the aged.

#### **Senior Tuition Program**

The policy regarding tuition and fees for senior citizens has been in effect since 1978 without change. It states that "persons 65 years of age or older, upon their application, shall be admitted to classes in the University under these provisions provided that the individuals are residents of the District of Columbia meet all established prerequisites for the course (s) to be taken; admission in a class or section will not deny space in the course or section to a regularly matriculating student of the University". The policy also states that "tuition and fees normally required of students admitted to the University will be waived except in cases where the applicant matriculated in a degree program. Such matriculating student shall pay one-half the amount set for students within their category unless otherwise deferred, or waived by specific Board of Trustee authority".

The establishment of the Community College and the selective Flagship University has not changed this policy, however, it may affect the academic unit (Flagship or Community College) in which the prospective senior is enrolled and the tuition rate charged (if the student is matriculating in a major). Senior citizens who have earned a postsecondary degree or meet Flagship admission requirements will be admitted to the Flagship University. All other applicants will be admitted to the Community College. However, senior citizens enrolled in the Community College will be permitted to take Flagship courses, if they have met the prerequisite for the courses.

#### ***Senior Companion and Respite Aide Program of Washington, DC***

The Senior Companion Program is funded by the Corporation for National and Community Services and the DC Office on Aging. This program has recruited and trained thousands of senior volunteers 55 years and older living in the District of Columbia to serve other District citizens in their place of residence or at group facilities such as: senior housing buildings, senior centers, and hospitals. The respite service provided by the program has served to ease the load of family caregivers by providing short-term relief to them. This has enabled caregivers to engage in employment, social, personal, and educational activities. These dedicated volunteers assist many frail elderly persons with errands, light housekeeping, meal preparation, and many other activities so that they may remain in their home rather than be institutionalized.

The Institute of Gerontology provides educational outreach activities and programs to over 2,500 senior citizens from all sections and wards of the District of Columbia. Staff and members of the Institute's programs recruit volunteers through community fairs, tenant/resident association meetings, and neighborhood council meetings. Program participants are also very instrumental in recruiting other senior citizens through their congregations, senior housing, and other contacts.

#### ***BODYWISE Program***

The BODYWISE Program is funded by the DC Office on Aging. It is a program specifically designed and operated to promote health, wellness and fitness for persons 60 years of age or older in the District of Columbia. Some of the benefits which may be achieved include: an increase in participant's cardiovascular efficiency, muscular strength, flexibility, and overall life satisfaction. A key component of the program is to promote health, wellness, and prevention knowledge.

The BODYWISE Program consists of water, (swimming is not required) stretch, walk, and chair exercise classes. Each of these activities includes a health education component covering topics such as: the use of over-the counter drugs and prescription medication, blood pressure screening and the benefits of exercise for certain physical problems. The program also offers other opportunities for learning and socializing. Participants in the BODYWISE Program must meet eligibility:

- Be a resident of the District of Columbia
- Be 60 years of age or older
- Complete an Application form
- Obtain a Medical Release form executed and signed by his/her physician
- Medical Release form must be done annually



### ***Water Resources Research Institute***

The mission of Water Resources Research Institute (WRRI) is to provide the District of Columbia with interdisciplinary research support to identify DC water resources problems and contribute to their solution. In addition to coordinating and facilitating water resources-related research projects through seed grants provided to faculty members from the consortium of universities in the District, the Institute provides training and disseminates research findings that address water issues in the DC area and beyond. The Institute supports collaborative research that engages not only faculty members and students, but also a broad array of stakeholders to address regional water issues in a holistic way. Areas of focus include drinking water source protection, stormwater management and planning, water safety, and watershed stewardship. WRRI offers the following programs and services.

- National Capital Region Watershed Stewards Academy
- Stormwater Management & Planning
- Water Quality Education
- Water Safety Training

***National Capital Region Watershed Stewards Academy*** is an innovative educational program designed to train and empower citizen-activists with an interest in watershed protection. Developed in partnership with the Anacostia Watershed Society, the 14-week course blends lectures by regional water experts with practical, field-based experiences working on low-impact development and green infrastructure installation.

***Stormwater Management & Planning*** provides research-based solutions to address both flooding damage and water pollution due to combined sewer overflows. This program develops tools and provides training to assist regulators in assessing the effectiveness of best management practices to address flood damage, minimize storm water runoff, reduce soil erosion, maintain groundwater recharge, and minimize surface water and groundwater contamination from combined sewer overflows.

***Water Quality Education*** programs promote awareness of ground, surface, and drinking water resources in the District of Columbia. Utilizing the EPA-Certified Environmental Quality Testing Lab at the Van Ness Campus, water quality program educators monitor various water sources in the District using random sampling and testing processes. Research findings are distributed to residents through publications, workshops, and special events. CAUSES is currently developing training and certification courses for Water Quality Lab Technicians and Waste Water Operators based on EPA standards.

***Water Safety Training*** programs provide training to the general public in assessing and preventing both chemical and biological/pathogen contamination of bodies of water, including drinking water, swimming pools, retaining pools and tanks, rivers and streams, ponds and lakes, marshes and the ocean.

### ***Architectural Research Institute***

The Architectural Research Institute (ARI) provides cross-disciplinary research and service to support livable, sustainable, global cities. ARI offers programs in construction, architecture, and planning, providing students and faculty with opportunities for research and field work. The institute also assists District government and non-profit agencies with capital improvement initiatives. ARI offers the following services.

- Building Rehabilitation
- Building Systems and Envelope Assessment

***Building Rehabilitation*** services focus primarily on the revitalization of abandoned properties throughout the District. Through ARI's building rehabilitation program, students have the unique opportunity to gain experience in a broad array of activities associated with the practice of architecture, including field documentation, specification writing, interaction with other professionals, and client contact through project administration. Most notably, ARI serves the District of Columbia Department of Housing and Community Development (DHCD) through its Homestead Program. To date, ARI has participated in the rehabilitation of over 525 homes and apartments, projects valued at more than \$110 million.

***Building Systems and Envelope Assessment*** provides technical assistance and training to building owners, managers, operators, and occupants. Our team includes seasoned professionals with experience in ENERGY STAR and LEED® design, construction, and operations to help you realize your goals for high-performing, efficient buildings.

For more information about programs and services offered within CAUSES' Division of Land-Grant Programs, please call (202) 274-7115 or email [CAUSES@udc.edu](mailto:CAUSES@udc.edu).



## College of Arts and Sciences (CAS)

Building 41, Suite 405-01

☎ 202.274.5194

The College of Arts and Sciences (CAS) offers a variety of programs in a cultural and academic environment in which its students and faculty may thrive as scholars, teachers, leaders, and activists. The College strives to create and maintain a stimulating academic and social environment for the diverse population it serves. This environment is characterized by cooperation and communication among all constituencies in order to enhance quality and productivity in the delivery of services to students.

The primary mission of CAS is to produce well-educated, autonomous, competent, and resourceful graduates who are well prepared to live and work in the multiethnic, global, and technological society of the 21st century. To accomplish this mission, the College provides opportunities for students to: 1) acquire a mastery of basic competencies and skills; 2) acquire the fundamentals of a general education; 3) concentrate in several fields in the humanities, fine arts, natural sciences, social sciences, and education; and 4) obtain sound preparation for professional graduate study.

The College is organized into three divisions - **the Division of Arts and Education, the Division of Science and Mathematics, and the Division of Urban Affairs, Behavioral, and Social Sciences**. Units in the **Division of Arts and Education** are the Departments of Communications; Education; English, World Languages and Cultures; and, Visual and Performing Arts, and the Center for Urban Education. The Center for Urban Education includes graduate programs in Education. The **Division of Science and Mathematics** consists of the Departments of Mathematics and Statistics, and Biology and Chemistry. Units in the **Division of Urban Affairs, Behavioral and Social Sciences** include the Departments of Criminal Justice Sociology and Social Work; Political Science, History and Global Studies; and, Psychology, Counseling and Human Development, and the Center for Applied Research and Urban Policy.

CAS offers 27 degree programs, including 10 Master's degree programs, 15 Bachelor of Arts and Bachelor of Science degree programs. As an essential part of its service function, CAS offers most of the courses in the General Education program. The College is therefore integrally involved in building the foundational skills we believe are necessary for UDC graduates to be competitive. Outreach efforts are accomplished through the College's two institutes, the Early Childhood Leadership Institute, and the Institute for Public Safety and Justice.

The College has a reputation for preparing a representative number of its graduates for acceptance at prestigious and highly ranked graduate programs. It also prepares many others for careers in teaching, law enforcement, social work, arts education, speech-language pathology, government service and work in the private sector.

Division of Arts and Education	
<b><u>Department of Communications</u></b>	
• Mass Media	BA
• Theater Arts	Minor
• Graphic Communications	Minor
<b><u>Department of Education</u></b>	
• Early Childhood Education**	BA
• Elementary Education**	BA
• Special Education**	BS
<b><u>Department of English, World Languages, and Cultures</u></b>	
• English	BA
• French	Minor
• Spanish	Minor
<b><u>Department of Visual and Performing Arts</u></b>	
• Art	BA
• Graphic Design	BFA
• Music	BM
<b><u>Center For Urban Education</u></b>	
• Early Childhood Education	MA
• Teaching	MAT
• Special Education	MA
• Speech-Language Pathology	MS
Division of Science and Mathematics	
<b><u>Department of Mathematics and Statistics</u></b>	
• Mathematics	BS
• Applied Statistics	PSM
<b><u>Department of Biology, Chemistry and Physics</u></b>	
• Biology	BS
• Chemistry	BS
• Physics**	BS
• Cancer Biology Prevention and Control	MS
Division of Urban Affairs, Behavioral and Social Science	
<b><u>Department of Criminal Justice, Sociology, and Social Work</u></b>	
• Administration of Justice	BA
• Sociology/Anthropology	BA
• Social Work	BSW
• Homeland Security	MS
<b><u>Department of Political Science, History, and Global Studies</u></b>	
• History	BA
• Political Science	BA
<b><u>Department of Psychology, Counseling, and Human Development</u></b>	
• Human Development	BA
• Psychology	BS
• Counseling	MS
• Rehabilitation Counseling	MS

\*\* Pending administrative review, the degree programs indicated above may be discontinued, or discontinued as majors and reconstituted as minors or concentrations within other majors. For updates and guidance as to alternatives and course registration, new students should contact the Admissions Office at [www.udc.edu/admissions/contact\\_office](http://www.udc.edu/admissions/contact_office) and currently enrolled students should contact the Academic Advising Center at 202.274.6899.



## Division of Arts and Education

### Center for Urban Education

☎ 202. 274.6960

The Center for Urban Education embraces the demands, challenges, and opportunities that educators and other service professionals encounter in educating and meeting the needs of students from all ages and developmental levels. Center students are among the best and brightest aspiring and seasoned professionals who learn and enhance their knowledge about the ways in which academic achievement and performance are influenced by a variety of factors. Courses are situated in PK-12 schools, health and community institutions in a highly diverse urban environment. These post-baccalaureate degree and certificate programs are taught by a highly accomplished faculty and are designed to launch and leverage successful careers in the District of Columbia and elsewhere.

#### Degree Programs in the Center for Urban Education

Master of Science

- Speech and Language Pathology

Master of Arts

- Early Childhood Education
- Master of Arts in Teaching
- Elementary Education
- Secondary & Middle School
- English Language Arts
- Mathematics
- Social Studies

Certificate Programs in the Center for Urban Education

- Early Childhood
- Adult Education

The Center's Early Childhood Leadership Institute has a long established track record for working with the District of Columbia (D.C.) - Office of the State Superintendent of Education to design and establish programs and initiatives that respond to community needs assessments and the legislative priorities of the D.C. Council. The Institute's program offerings are as follows:

- Project Headway- designed for students working toward an Associate of Arts (AA) degree in early childhood education
- Project Advance- designed for students working toward a Bachelor of Arts degree in Human Development with an Early Childhood Education focus
- The Directors Credential—a National Association for the Education of Young Children (NAEYC) state recognized credential that is approved for the child development center accreditation process
- The DC Early Childhood Higher Education Collaborative—a legislatively mandated entity to coordinate the degree requirements under the Pre-K Acts
- The UDC Early Childhood Lab School-serves as a building block for the University's Pre-K through Grade Three demonstration school
- The Pre-K through Grade Three Leadership Academy- currently under development with the University of Washington

The Graduate Certificate Program in Adult Education provides a comprehensive, theoretical understanding of the field of adult education. The program addresses the current social, political, and cultural issues that educators and practitioners of adult education face. The program is currently under review and a Master of Arts program in Adult Education is under development. Admission and graduation requirements as well as the courses of study for the programs will be listed once completed.

### Course Changes

The courses in this catalogue are subject to change.

### Admission to Graduate Education Programs

The Center's education programs and courses are crafted to build on students' prior experiences and to provide the essential background and knowledge for quality teaching, student learning and achievement. Coursework is coupled and enriched with authentic field and clinical experience requirements. Courses are scheduled with working professionals in mind.

The Center faculties are accomplished educators with impressive backgrounds, knowledge of their disciplines and significant experience in educators' initial and continuing professional development. Individuals who are accepted into the Center have demonstrated:

- An interest in teaching generally, and in an urban environment, specifically
- A commitment to the learning and achievement of students from all backgrounds
- The ability to successfully complete a comprehensive and rigorous graduate level program of study

In addition, to requirements for admission to the University of the District of Columbia Graduate School, MA and MAT Center applicants are required to meet the District of Columbia's PRAXIS I® assessment, score requirement or the equivalent GRE scores; respond to a written prompt in real time; and interview with Center staff. The completion requirements for both the MA and MAT programs include, but are not limited to 33 earned credit hours

Subject-area content knowledge is reviewed on a case by case basis, depending on the concentration of choice. Applicants who are admitted without a related degree or work experience must demonstrate content-area proficiency through additional testing in their first semester of enrollment.

### How to Apply

1. Submit a complete application packet seeking admission to the University. Submit the following documents to the UDC Office of Admissions:

- Application for Graduate Admission;
- The non-refundable Admission Application Fee or Application for Readmission Fee - Money Order, Certified Check or Bank Check;
- A 500-word personal statement, focused on the Center for Urban Education selection criteria for aspiring teachers.
- One official transcript, in the original sealed envelope, from each undergraduate institution attended.
- GRE scores submitted directly to UDC via the test provider, ETS, using UDC's recipient code RA5929. Indicate that UDC is the recipient when registering for the GRE; and
- Two letters of recommendation

2. Participate in an admissions interview. After a review of application materials, selected applicants will be invited to an in-person interview day, which will include:

- Personal interview with panel of faculty;
- Interactive/group activity with other applicants;
- Writing exercise; and
- Public speaking exercise

Successful applicants are notified of their acceptance through the Office of Graduate Admissions.



### Academic Probation

If the CGPA of a graduate student or candidate falls below 3.0 in a given semester, the student or candidate is placed on academic probation and must retake courses or enroll in pre-approved elective courses in order to improve the CGPA. The course load is reduced from full-time to part-time (6 hours). These students will be notified by the Dean's Office in writing of their probationary status and that they are required to raise their CGPA to a minimum of 3.0.

### Academic Suspension

Academic suspension occurs when students fail to meet the requirements of their academic probation. Students who are placed on academic suspension may seek reinstatement one semester following the semester of their suspension. Upon reinstatement, students must bring their academic status to the level of good standing. If students seek reinstatement two or more semesters after their semester of suspension, then they must apply for readmission to the University.

### Transfer Credit

Students may transfer no more than 9 credit hours of graduate credit earned from an accredited institution. Transfer courses will be evaluated and accepted toward the degree, however, on the basis of their applicability to the requirements of the program. No credits will be accepted that are more than 5 years old.

### Residency

The programs adhere to the graduate residency requirements of the University

### Master of Arts in Early Childhood Education

#### Foundations of Urban Education Core Courses:

Courses that prepare students to make a difference with diverse, high-needs learners.

EDUC 500: Introduction to Urban Teaching (1 credit, Fall I)

ECCC 501: Applying Child Development Theories in Early Childhood Education (3 credits; Fall I)

ECCC 502: Impact of Home, Community, and Culture in Urban Early Childhood Education (3 credits, Fall I)

ECCC 503: Exceptional Learners, Differentiation and Inclusion in Early Childhood Education (3 credits; Fall I)

ECCC 504: Assessing Learning in Early Childhood (3 credits; Spring I)

ECCC 505: Managing the Early Childhood Environment (3 credits; Spring I)

#### Content-Area Pedagogy Strand:

Courses that prepare students to teach P-3 grade curriculum across content areas through inquiry.

ECCI 501: Developing Language and Literacy in Urban Early Childhood Education (3 credits; Spring I)

ECCI 502: Teaching Math, Science, and Technology to Young Urban Learners (3 credits; Fall II)

ECCI 503: Developing Academic and Social Skills through Play and the Arts (3 credits; Fall II)

ECCI 504: Teaching Young Learners about Self, Physical Education, and Society (3 credits; Fall II)

#### Field Experience

The course that builds the skills of effective teaching through first-hand observations and supervised student teaching in P-3 settings.

ECTE 590: Practicum in Urban Early Childhood Education (3-6 credits; Spring I)

#### Master of Arts in Teaching

### Elementary Education Concentration

The Elementary Education option prepares teacher candidates for classrooms in grades 1-6. Coursework is held in evening hours to accommodate working professionals. Field experiences - which take place in P-12 school settings-require some daytime availability. Recommended semesters for each course are indicated in parentheses. Part-time students may work through pre-service requirements at their own pace,

#### Foundations of Urban Education Strand:

Courses that prepare students to make a difference with diverse, high-needs learners.

EDUC 500: Introduction to Urban Teaching (1 credit, Fall I)

EDUC 501: Human Development, Learning, and Motivation in Classroom Context (3 credits; Fall I)

EDUC 502: Case Studies in Effective Urban Teaching (3 credits; Fall I)

EDUC 503: Culture, Context, and Critical Pedagogy in Urban Classrooms (3 credits; Spring I)

EDUC 504: Portfolio Capstone: Planning, Reflection, and Professionalism (3 credits; Summer I/Session II)

#### Content-Area Pedagogy Strand

Courses that prepare students for the specific grade or subject they wish to teach.

EDRD 501: Teaching Reading & Language Arts (3 credits; Fall I)

EDCI 521: Teaching Mathematics (3 credits; Fall I)

EDCI 522: Teaching the Content Areas through Inquiry (3 credits; Spring I)

EDCI 523: The Integrated, Collaborative Curriculum (3 credits; Spring I)

#### Field Experiences Strand:

Courses that build the skills of effective teaching through first-hand observations and actual teaching in P-12 settings.

EDTE 501: Practicum I: Observation in Diverse Urban Classrooms (3 credits; Spring I)

EDTE 502: Practicum II: Student Teaching (6 credits: Summer I/Session I)

### Master of Arts in Teaching: Secondary Concentrations

The secondary concentrations prepare teacher candidates for classrooms in grades 7-12. All candidates in secondary concentrations complete the courses listed in the Foundations and Field Experience strands. Content pedagogy courses defer by concentration. Coursework is held in the evening to accommodate working professionals. Field experiences -which take place in P-12 school settings - require some daytime availability. Recommended semesters for each course are indicated in parentheses. Part-time students may work through pre-service requirements at their own pace,

#### Foundations for all Secondary Concentrations

EDUC 500: Introduction to Urban Teaching (1 credit, Fall I)

EDUC 501: Human Development, Learning, and Motivation in Classroom Context (3 credits; Fall I)

EDUC 502: Case Studies in Effective Urban Teaching (3 credits; Fall I)

EDUC 503: Culture, Context, and Critical Pedagogy in Urban Classrooms (3 credits; Spring I)

EDUC 504: Portfolio Capstone: Planning, Reflection, and Professionalism (3 credits; Summer I/Session II)

#### Content-Area Pedagogy Strand Secondary English Language Arts:

EDRD 505: Teaching Adolescent Readers (3 credits; Fall I)

EDCI 551: Teaching Adolescent Writers (3 credits; Fall I)

EDCI 552: Teaching through Literature (3 credits; Spring I)

#### Content-Area Pedagogy Strand Middle School Math:

EDCI 571: Scope and Methods of Middle School Math (3 credits; Fall I)

EDCI 572: MS Math Curriculum & Instruction I: Number System; Ratios & Proportions; and Statistics & Probability (3 credits; Fall I)

EDCI 573: MS Math Curriculum & Instruction II: Geometry & Algebra (3 credits; Spring I)

#### Content area Pedagogy Social Studies Concentration

EDRD 505: Teaching Adolescent Readers (3 credits; Fall I)

EDCI 561: Scope and Methods of Teaching Social Studies I (3 credits; Fall I)

EDCI 562: Scope and Methods of Teaching Social Studies II (3 credits; Spring I)

Field Experiences Strand for all Secondary concentration: Courses that build the skills of effective teaching through first-hand observations and actual teaching in P-12 settings.

EDTE 501: Practicum I: Observation in Diverse Urban Classrooms (3 credits; Spring I)

EDTE 502: Practicum II: Student Teaching (6 credits: Summer I/Session I)





## Center for Urban Education

### Master of Science in Speech and Language Pathology

The Master of Science Speech and Language Pathology program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language Hearing Association (ASHA) and is a member of the Council on Academic Programs in Communication Sciences and Disorders (CAPCSD). The program is designed to provide training for individuals who wish to become certified in speech-language pathology by ASHA, the national certifying agency for professional speech-language pathologists. Students will gain knowledge in evidence-based research in communication disorders; and provide diagnostic and treatment services to clients/patients in schools, hospitals, health maintenance organizations, or private clinics. Emphasis is placed on communication behavior and disorders in linguistically and culturally diverse urban populations and their families.

#### *Degree Curriculum*

##### *Graduate Writing Proficiency Examinations*

Demonstrated proficiency in writing is required. Students must take the GRE Analytical Writing Subtest as a requirement for admission and earn a criterion score of at least 4. Students failing to meet the criterion must pass English Writing Proficiency ENGL 515, during their first semester of admission.

##### *Curriculum Requirements*

The Master of Science in Speech-Language Pathology requires 54 credit hours (57 for students without a subject background, not including credit hours for prerequisite coursework; a minimum of 400 clock hours of supervised practicum, of which a minimum of 375 must be in direct client/patient contact, and at least 25 in clinical observation. At least 325 of the 375 clock hours must be at the graduate level. All current and prospective graduate students are encouraged to visit or call the Program Office for curricular information and advising assistance.

Students in the program are encouraged to become members of the National Student Speech-Language-Hearing Association (NSSLHA)

For additional information regarding the profession of a Speech-Language Pathology, contact:

ASHA National Office  
2200 Research Boulevard  
Rockville, MD 20850-3289  
301-296-5700

##### *Graduate Admission Statement*

The Masters of Science in Speech-Language Pathology restricted to students who have been accepted into the Speech-Language Pathology program. Students must earn a minimum grade of "B" in all required Speech-Language Pathology courses.

##### *GPA*

Applicants must have an undergraduate degree from an accredited institution and a minimum grade point average of 3.0. A degree in speech-language pathology is preferred, but not required. Students must submit three letters of recommendation, a final copy of the undergraduate transcript, a letter of intent, and GRE general test scores with their application for admission. Prospective applicants

may be required to participate in an interview with an admission committee representative.

##### *Comprehensive Examination:*

Students must successfully complete a thesis or the comprehensive examination administered by the Program. Students electing to take the comprehensive examination must sit for the exam at the end of their second semester of full-time enrollment in graduate study. They have two opportunities to take the exam; two failed attempts will result in dismissal.

##### *Residency Statement*

Of the 54 required credits, 54 must be taken in residence at the University of the District of Columbia.

##### *Course Requirements*

Speech Language Pathology students have substantial responsibility for seeking advisement before planning their program of study. The Speech Language Pathology program is designed so that students will take all 600 level courses prior to taking 600 (senior) level courses. The program is designed to facilitate the speech-language pathology student's ability to obtain clinical clock hours during each semester enrolled. A student must enroll in the appropriate level clinical practicum each semester. The recommended course of study ensures that the student will take the courses in the proper sequence. Speech-language pathology students are expected to enroll in the summer semester between year one and year two.



## Center for Urban Education

### Master of Science - Speech and Language Pathology

#### Pre-requisites Course Requirements for the Graduate Program

SPLP 115 Introduction to Linguistic Analysis  
SPLP 224 Anatomy and Physiology of Speech  
SPLP 225 Anatomy and Physiology of Hearing  
SPLP 312 Language Acquisition  
SPLP 434 Diagnostics (required of all students)  
SPLP 507 Speech/Hearing Disorders and Related Disciplines

#### Required Courses

SPLP 510 Survey of Linguistic Theory  
SPLP 513 Sociolinguistics: Survey of Social Dialects  
SPLP 520 Neuroanatomy of the Speech and Hearing Mechanism  
SPLP 534 Stuttering  
SPLP 535 Language Disorders  
SPLP 536 Phonological Disorder  
SPLP 560 Practicum in Speech (Minimum of 4 semesters required)  
SPLP 634 Aphasia  
SPLP 635 Structural Abnormalities of Speech Mechanism  
SPLP 636 Neurophysiological Disorders of Speech and Swallowing  
ADUL 520 Diagnostic Audiology  
ADUL 552 Aural Rehabilitation  
SPLP 611 Physiologic and Acoustic Phonetics  
SPLP 674 Research Methods in Communication Sciences  
SPLP 695 Independent Study  
SPLP 698 Elective  
SPLP 699 Thesis

#### Plan of Study - Speech Language Pathology

##### First Year - Fall Semester

SPLP520	Neuroanatomy of the Speech & Hearing Mechanism	3
SPLP535	Language Disorders	3
SPLP536	Phonological Disorders	3
SPLP560	Practicum in Speech Pre-Level, Level 1	3
	<b>Total</b>	<b>12</b>

##### First Year - Spring Semester

SPLP560	Practicum in Speech Level 2	3
SPLP634	Aphasia	3
SPLP636	Neurophysiological Disorders of Speech & Swallowing	3
SPLP674	Research Methods in Communication	3
	<b>Total</b>	<b>12</b>

##### First Year - Summer Semester

SPLP 510	Survey Linguistic Theory	3
SPLP 574	Research Methods in Communication Disorders	3
SPLP698	Special Topics	3
	<b>Total</b>	<b>9</b>

##### Second Year - Fall Semester

ADUL520	Diagnostic Audiology	3
SPLP534	Stuttering	3
SPLP560	Practicum in Speech Level 3	3
SPLP 635	Voice and Structural Abnormalities	3
	<b>Total</b>	<b>12</b>

##### Second Year - Spring Semester

ADUL552	Aural Rehabilitation	3
SPLP513	Sociolinguistics: Survey Social Dialects	3
SPLP560	Practicum in Speech Level 4	3
SPLP611	Physiological & Acoustical Phonetics	3
	<b>Total</b>	<b>12</b>



## Department of Communications

☎202.274-5763

### Department Mission

The Department of Communications offers a major in Mass Media which leads to a Baccalaureate of Arts degree (BA) in Mass Media Arts. The Department also houses the Speech Communication Arts Program.

The Mass Media Program offers two concentration options: Video/Digital Production and Journalism/Electronic Media.

The goals of the major are to assimilate students with a liberal arts education from varied backgrounds into a professional mass media production culture by providing (1) strong electronic writing skills, (2) portable digital skills, and (3) a socio-cultural framework for ethical decision making. Mass Media majors graduate with strong academic skills in research, writing and, editing under the guidance of faculty that are engaged in cutting edge research in the field. In addition, they have on-and-off-campus internships and media experiences and, complete discipline-specific student projects; they hone their video production and journalism skills by producing programs at the on-campus television studio and, by writing and editing a student publication in online and print formats. .

Empowering Mass Media majors with strong academic skills in research, writing and editing, the Mass Media program prepares its graduates for entry-level and mid-level jobs in both the local, regional, and international media, local and federal governments, and media-related service industries, including reporting across multiple platforms, television production and management, government relations, public relations, advertising, marketing, promotions, and community outreach advocacy. The program is designed to present students with the latest technological developments in broadcast and publishing production.

The Department of Communications incorporates the program area of Speech Communication Arts. The courses in this program fulfill necessary instructional requirements for various degree-granting programs throughout the University.

The course required by most degree programs is Foundations of Oral Communication (formerly Public Speaking), an Intergraded General Education Foundations course which provides an overview of the theory of public speaking, and offers training and practice in developing effective informative and persuasive speaking skills.

Classes throughout the program are oriented towards developing oral communication skills and competencies in an academic and professional context.

### Undergraduate internships

Both baccalaureate programs in Mass Media require a minimum of one semester internship with public or commercial mass media institutions or an acceptable equivalent. To enroll in an internship course, a GPA of 2.5 or better is required and all major courses, with the exception of major courses numbered 398 or 495 must have been successfully completed.

### Department Offerings

Bachelor of Arts in Mass Media

### Credit Statement:

The BA in Mass Media program requires completing a total of 121 credit hours for graduation.

### Admission Statement

After completing 15 credit hours in the major, each student's progress is reviewed by department advisors.

### GPA statement

Students must maintain a 2.5 grade point average to continue in the major.

### Residency Statement

Of the 121 credits for graduation, 54 credits (27 credits in Video/Digital Production and 27 in Journalism/Electronic Media must be taken in residence at UDC.

### Student Groups

Cinema Club  
Journalism Club  
Honda Campus All-Star Challenge Team  
The Free Voice (News and Journalism Laboratory newspaper)

### Department Policy Changes

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree. Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.



## Department of Communications

### BA Mass Media, Concentration: Video Production

#### Course Requirements.

##### **Required General Education Courses (37 Credits)**

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
<b>IGED 130</b>	<b>Foundation Oral Communications (3*)</b>
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

*\*IGED 130 Foundations of Oral Communication fulfills both the General Education requirement and the core requirement for the Mass Media.*

##### **Required Core Courses Mass Media (33 credits)**

ARTS 145	Basic Photography (3)
<b>IGED 130</b>	<b>Foundation Oral Communications (3)*</b>
JOUR 211	Fundamentals of Journalism (3)
MMED 105	Processes of Communication (3)
MMED 107	Introduction to Mass Media (3)
MMED 214	Audio Visual Foundations (3)
MMED 214	Introduction to Public Relations (3)
MMED 215	Advertising (3)
MMED 216	Media Ethics (3)
MMED 315	Writing for Media (3)
MMED 398	Directed Study – Video/Digital Production (3)
MMED 495	Independent Study/Internship (3)
MMED 497	Communicative Arts Seminar (3)

##### **Required Courses Mass Media – Video Production Concentration (27 credits)**

FILM 201	Fundamentals of TV (3)
FILM 211	Introduction to Studio TV Production (3)
FILM 212	Advanced Studio Production (3)
FILM 234	Fundamentals of Film Production (3)
FILM 311	Introduction to Remote TV Production (3)
FILM 312	Advanced Remote TV Production (3)
MMED 116	Audio Visual Foundations (3)
THEA 371	Directing I (3)
THEA 281	Lighting I (3)

##### **Mass Media/Video Production Concentration Electives (24 credits)**

*Students are required to take an additional 24 credit hours of elective courses from within the Communications Department or Visual and Performing Arts Department with the approval of their faculty advisor.*

##### **Model Program of Study**

The program outline illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
IGED 130	Foundation Oral Communications	3
MMED 105	Processes of Communication	3
		Total 12

Year 1: Semester 2		
IGED 111	Foundation Writing II	3
IGED 220	Discovery Quantitative Reasoning	3
ARTS 145	Basic Photography	3
MMED 107	Introduction to Mass Media	3
FILM 201	Fundamentals of TV	3
		Total 15

Year 2: Semester 3		
IGED 140	Foundation Ethics	3
IGED 210	Discovery Writing	3
JOUR 211	Fundamentals of Journalism	3
FILM 211	Introduction to Studio TV Production	3
MMED 116	Audio Visual Foundations	3
		Total 15

Year 2: Semester 4		
IGED 260	Discovery Science + Lab	4
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
FILM 212	Advanced Studio Production	3
THEA 281	Lighting I	3
		Total 16

Year 3: Semester 5		
IGED 391	Frontier Capstone I	1
IGED 250	Discovery Technology	3
MMED 214	Introduction to Public Relations	3
FILM 234	Fundamentals of Film Production	3
THEA 371	Directing I	3
MMED 216	Media Ethics	3
		Total 16

Year 3: Semester 6		
IGED 392	Frontier Capstone II	2
FILM 312	Advanced Remote TV Production	3
MMED 315	Writing for Media	3
	Elective	3
	Elective	3
	Elective	3
		Total 17

Year 4: Semester 7		
MMED 215	Advertising	3
MMED 398	Directed Study – Video/Digital Production	3
	Elective	3
	Elective	3

Year 4: Semester 8		
MMED 495	Independent Study/Internship	3
MMED 497	Communicative Arts Seminar	3
	Elective	3
	Elective	3
	Elective	3
		Total 15



## Department of Communications

### BA Mass Media Concentration: Journalism/Electronic Media

#### Course Requirements

#### Mass Media/Journalism/Electronic Media Concentration

##### Required General Education Courses (37 Credits)

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
<b>IGED 130</b>	<b>Foundation Oral Communications (3)*</b>
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

\*IGED 130 Foundations of Oral Communication

\* fulfills both a General Education requirement and a core requirement for the Mass Media degree.

##### Required Core Courses Mass Media (33 credits)

ARTS 145	Basic Photography (3)
<b>IGED 130</b>	<b>Foundation Oral Communications (3)*</b>
JOUR 211	Fundamentals of Journalism (3)
MMED 105	Processes of Communication (3)
MMED 107	Introduction to Mass Media (3)
MMED 214	Introduction to Public Relations (3)
MMED 215	Advertising (3)
MMED 216	Media Ethics (3)
MMED 315	Writing for Media (3)
MMED 398	Directed Study - Journalism/Electronic Media (3)
MMED 495	Independent Study/Internship (3)
MMED 497	Communicative Arts Seminar (3)

##### Required Courses Mass Media – Journalism/Electronic Media Concentration (24 Credits)

JOUR 212	News Reporting (3)
JOUR 213	News Editing (3)
JOUR 311	News & Journalism Lab I (3)
JOUR 312	News & Journalism Lab II (3)
JOUR 314	Feature Article Writing (3)
JOUR 315	Web Journalism (3)
JOUR 316	History of the Black Press (3)
GRCT 109	Digital Applications

##### Mass Media/Journalism/Electronic Media Concentration Electives (27 credits)

Students are required to take an additional 27 credit hours of elective courses from within the Communications Department or Visual and Performing Arts Department with the approval of their Faculty Advisor.

#### Model Program of Study

The program outline illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
IGED 130	Foundation Oral Communications	3
MMED 105	Processes of Communication	3
MMED 107	Introduction to Mass Media	3
		Total 15

Year 1: Semester 2		
IGED 111	Foundation Writing II	3
IGED 220	Discovery Quantitative Reasoning	3
ARTS 145	Basic Photography	3
GRCT 109	Digital Applications	3
MMED	Elective	3
		Total 15

Year 2: Semester 3		
IGED 140	Foundation Ethics	3
IGED 210	Discovery Writing	3
JOUR 211	Fundamentals of Journalism	3
MMED 215	Advertising	3
MMED 214	Introduction to Public Relations	3
		Total 15

Year 2: Semester 4		
IGED 260	Discovery Science + Lab	4
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
JOUR 212	News Reporting	3
MMED	Elective	3
		Total 16

Year 3: Semester 5		
IGED 391	Frontier Capstone I	1
IGED 250	Discovery Technology	3
JOUR 311	News & Journalism Lab I	3
JOUR 314	Feature Article Writing	3
MMED 216	Media Ethics	3
JOUR 213	News Editing	3
		Total 16

Year 3: Semester 6		
IGED 392	Frontier Capstone II	2
JOUR 315	Web Journalism	3
MMED 315	Writing for Media	3
JOUR 312	News & Journalism Lab II	3
MMED	Elective	3
		Total 14

Year 4: Semester 7		
MMED 398	Directed Study – Journalism/Electronic Media	3
JOUR 316	History of the Black Press	3
MMED	Elective	3
MMED	Elective	3
MMED	Elective	3
		Total 15

Year 4: Semester 8		
MMED 495	Independent Study/Internship	3
MMED 497	Communicative Arts Seminar	3
MMED	Elective	3
MMED	Elective	3
MMED	Elective	3
		Total 15



## Department of Education

☎ 202.274.7404

The Department of Education, one of the nine academic departments in the College of Arts and Sciences, administers both pre-service and in-service professional education programs for the University of the District of Columbia. In keeping with the mission of the University of the District of Columbia, the Department's programs and activities are designed to respond to the University's responsibilities as an urban land-grant institution. To this end, the Department of Education (a) prepares certified teachers and other professionals who desire leadership roles in diverse human service settings, and (b) provides an adequate foundation for advanced study for students to continue their educational preparation.

The mission of the Department of Education is expressed in the theme, "Renewing the Legacy of Excellence." The Department embraces the idea that excellence is demonstrated by adhering to the beliefs and principles espoused in its conceptual framework and summarized in its vision-to prepare excellent educational professionals who possess the knowledge, skills, and dispositions needed to transform schools for the 21st century to ensure that all children learn. The Department of Education engages in collaborative efforts with the District of Columbia Public Schools and other local agencies for practicum and internship placements and provides training, consultation, and technical assistance to community agencies and organizations.

The degrees offered at the undergraduate level are: the Bachelor of Arts in Early Childhood Education, the Bachelor of Arts in Elementary Education, and, the Bachelor of Arts in Special Education. The Department also offers a Master of Arts in Special Education.

The Department of Education infuses instructional technology tools throughout the curriculum, especially in the methodology courses, in an effort to prepare students to teach in the technologically driven society of the 21st century. The Department holds membership in the American Association of Colleges for Teacher Education (AACTE), and the unit is accredited by the National Council for Accreditation of Teacher Education (NCATE). The institutional pass rate, required by Higher Education (HEA) - Title II, for teacher candidate completers from the Department of Education continues to meet and surpass the requisite 80 Percent.

### Department Offerings:

#### Bachelor Degrees:

- Bachelor of Arts in Early Childhood Education
- Bachelor of Arts in Elementary Education
- Bachelor of Arts in Special Education.

#### Certificates:

- Teacher Certification

#### Graduate Degree:

- Master of Arts in Special Education

### Accreditation and Associations

National Council for Accreditation of Teacher Education (NCATE).  
American Association of Colleges for Teacher Education (AACTE),

## Department Policy Changes

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next course catalog.

## Admission to Teacher Education Programs

Students who wish to major in an undergraduate teacher education program must apply for admission to the Teacher Education program during the second semester of the sophomore year and not later than the first semester of the junior year. Transfer students with 45 or more credit hours of college-level work should apply during the first semester of enrollment in the University. Application forms and related information are available in the Department's office, as well as in each academic department offering a teacher education program. A student must meet the following criteria to be accepted into a teacher education program:

- Complete a minimum of 45 credit hours of college-level work (including Foundation writing I and II and two courses in college-level mathematics with a grade of "C" or better);
- Must have a cumulative grade point average of 2.5 or better;
- Pass Foundation Communication with a minimum grade of "C";
- Submit two letters of recommendation that must be completed by persons who have direct knowledge of the candidate's potential to become an effective teacher;
- Earn a qualifying score on the Praxis I: Academic Skills Assessments in Reading, Writing, and Mathematics;
- Complete a voluntary or paid experience working with children in an organized program; and
- Have an interview with the Admissions Committee of the Teacher Education Council. Interview dates for the Fall Semester: 3rd Thursday in September and November. Dates for the Spring Semester: 3rd Thursday in February and April.
- Complete an on-line technology assessment.

## Background Checks and Investigations

DC law requires police clearances and criminal background checks of all Education majors before advancement to candidacy and/or placement in student teaching. Failure to acquire clearance may result in students not being admitted to the program. Adverse reports from either of these investigations will preclude students from their advancement toward degree and placement in the District of Columbia Schools. Those who do not meet all of the above criteria may be granted provisional acceptance upon recommendation by the Department Chair. Final acceptance into a teacher education program will be made by the Admissions Committee of the Teacher Education Council and the Chair of the Department.



### Field Services, Student Teaching, and Teacher Certification

The Coordinator of Field Services, Student Teaching, and Teacher Certification arranges all field services activities and teacher certification courses and programs offered by the Department. The coordinator serves as a liaison between educational agencies in surrounding jurisdictions and the Department to provide a wide range of field experiences for prospective teachers, as well as staff development courses for in-service teachers. In cooperation with the District of Columbia Public Schools, the Field Services Coordinator:

- Arranges field practicum activities;
- Determines student eligibility for field service placements;
- Processes student applications for field services and student teaching; and
- Coordinates the offering of appropriate teacher certification courses as determined by the District of Columbia Public School's Office of Academic Credentialing and Standards, and
- Oversees validation of students' certification requirements.

Applications for student teaching ("Observation and Student Teaching" course) are secured from and submitted to the Field Services Coordinator. Closing dates for submission of applications for student teaching are the third Friday in March and the third Friday in September for the fall and spring semesters, respectively. Applications may be made at any time prior to the closing dates. Student teaching is a full-day experience that requires students to be available from 8:00 A.M. until 3:30p.m. Monday through Friday, for the entire semester. Adjustments to the schedule may be made by the administrators of the school to which the student is assigned. Failure to complete satisfactorily the requirements for student teaching with a grade no less than "B" after two attempts may result in a student not being allowed to complete this requirement at the University. Transfer students who wish to student teach must meet the Department's requirements for admission to teacher education and student teaching, which includes a minimum of eighteen semester hours of professional education courses in residence. To be admitted to the student teaching program, students must:

- be fully admitted into a teacher education program at least three semesters prior to student teaching;
- have completed all courses in the student's academic program
- have a cumulative grade point, average of at least 2.5;
- have grade point average of 2.5 or better in the major teaching field;
- be approved by the Chair of the Department or a designee;
- demonstrate evidence of good health, including TB test;
- have police clearance (fingerprinting); and
- have signed verification of eligibility by faculty advisor.

Students who wish to enroll in courses for purposes of certification need meet only with a faculty advisor in their disciplines to determine the appropriate course(s) that satisfy the competencies identified in the licensing and certification requirements for the District of Columbia or other jurisdictions. Students may enroll in no more than three (3) semester hours (non-major courses) concurrently with the course, Observation and Student Teaching. Approval is required by the Chair of the Department in consultation with the Coordinator of Field Services, Student Teaching, and Teacher Certification:

### Teacher Education Council

The Teacher Education Council is the body within the Department of Education that is responsible for the coordination of all of the University's teacher education programs. The Council serves as the coordinating body that:

- assures consistency, uniformity, and quality of the teacher education programs;
- determines and establishes policies and procedures in teacher education on such academic matters as student admissions, retention, exit, follow-up, program monitoring and evaluation, and development of new programs;
- assumes responsibility for stimulating innovations for improved practices and new departures in programs in education; and
- serves to facilitate communication among the various departments of the University in matters affecting programs that prepare teachers.

The Council consists of at least one representative from each area of the University that offers a teacher education program. Other members include the Coordinator of the Office of Field Services, Student Teaching, and Teacher Certification Department of Education. The Council provides professional education courses which include Early Childhood Education, Elementary Education, Secondary Education, Special Education, and Adult Education. The Council meets the fourth Friday of each month during the academic year (beginning in September), and its standing committees are Student Admissions, Retention, and Exit; Program Evaluation and Follow-up; and In service and Resource Linkage.



### **Bachelor of Arts in Early Childhood Education**

The Bachelor of Arts degree in Early Childhood Education focuses on comprehensive care and education of children (birth through 8 years) and professional interaction with their families. This education forms the academic framework which guides the developmentally appropriate practices in early childhood settings. Emphasis is placed on responding to the developmental and cultural uniqueness of each child, as candidates in the program learn to design, implement, and evaluate learning environments and curricular activities. Each student completes student teaching experience in grades PK to 3 settings.

The program is designed to prepare candidates for careers in teaching in early childhood education settings. It enables them to fulfill teacher certification and other requirements in early childhood fields and provides the opportunity to advance on the career ladder of professional early childhood education. Candidates must complete practicum and field experiences which are a part of many of the courses in the curriculum. The University's Child Development Center and the District of Columbia Public Schools serve as the practicum and field experience sites for students in the program. The minimum number of credits required for graduation in Early Childhood Education is 126 credit hours of college-level courses.

### **Bachelor of Arts Degree in Elementary Education**

The Bachelor of Arts degree in Elementary Education prepares candidates to teach children in grades one through six. The program is designed to provide courses and field-based learning experiences which enable students to develop the skills and competencies required to effectively meet the educational needs of children in a multi-ethnic urban environment. The program emphasizes multi-faceted curriculum approaches designed to help candidates function in a school environment which provides outcomes-oriented learning experiences, as well as standards-based curriculum designs.

Additionally, elementary education majors are exposed to opportunities to understand and become empowered to actively participate in innovative and creative approaches to teaching and curriculum reforms. The scope of the program is also intended to prepare candidates for advanced study and education-related careers in educational technology, computer-assisted instruction, and research. Culminating with student teaching in lower and upper elementary school grades, this reflective process is organized sequentially as outlined below. The minimum number of credits required to graduate with a Bachelor of Arts degree in Elementary Education is 126 semester hours.

### **Bachelor of Arts degree in Special Education**

The Bachelor of Arts degree in Special Education is designed to meet the non-categorical teacher certification requirements for the District of Columbia and other school jurisdictions. Upon completion of the program, students will be prepared for careers as teachers in public and private schools or as special educators who provide direct services to children and youth with special needs.

The program of study is designed to provide courses and learning experiences that enable candidates to develop teaching skills and competencies required to assess the academic, social, and behavioral needs of exceptional children and youth within a multi-ethnic urban school setting; to acquire and apply teaching methods, learning strategies, and instructional interventions that are based on sound research and best practices; to effectively manage a

performance-based, behaviorally-oriented learning environment in grades K-12; and to prepare students for advanced graduate study. Candidates must complete practicum and field experiences which are a part of many of the courses in the curriculum. These experiences allow for progressive application of the educational principles and practices required to meet the objectives of the program.

### **Credit Statement:**

Total Credit Hours of College-Level Courses Required for Graduation:  
126

### **GPA statement**

Candidates must earn a grade of at least a "C" in all required education courses, except Observation and Student Teaching, which requires a grade of at least a "B". Candidates must take and pass Praxis II before or during the last semester of their senior year.





## Department of Education

### BA Early Childhood Education

#### Program Requirements

##### Required General Education Courses (37 credits)

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
IGED 130	Foundation Oral Communications (3)
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

##### Core Courses (12 credits)

ECED 104	History and Philosophy of Early Childhood Education (3)
ECED 105	Principles of Child Development (3)
ELED 222	Children and Youth in Urban Schools (3)
SPED 204	Introduction to Education of Exceptional Children (3)

##### Professional Studies/Academic Specialization (42 credits)

ECED 208	Emergent Literacy (3)
ECED 230	Practicum I-Early Childhood (3)
<i>Students must be admitted into the teacher education program before taking courses in the major beyond this level.</i>	
EDPY 300	Educational Psychology (3)
ECED 301	Methods and Materials for Teaching Math, Science, and Technology in Early Childhood Education (3)
ECED 302	Methods and Materials for Teaching Language Arts and Social Studies in Early Childhood Education (3)
RDNG 314	Methods and Materials for Teaching Reading in Elementary Schools (3)
ECED 326	Practicum II - Early Childhood (3)
PHED 394	Methods and Materials for Teaching Health, Physical Education, and Safety in Elementary Schools (3)
ECED 428	Classroom Management (3)
ELED 461	Methods and Materials for Teaching Creative Arts (3)
ECED 406	Observation and Student Teaching in Early Childhood Education (12)

##### Required Ancillary Courses (34 credits)

Fine Arts Elective (3)	
Physical education Elective (1)	
BIOL 101	Biological Science I (3)
BIOL 103	Biological Science Laboratory (1)
HIST 101	U.S. History I (3)
HIST 102	U.S. History II (3)
GEOG 105	World Cultural Geography (3)
HIST 279	History of the District of Columbia (3)
ECED 304	Play Activities and Materials (3)
RDNG 305	Children's Literature (3)
ECED 314	Teacher, Child, School, and Community Interaction (3)
NUFS 318	Child Health and Nutrition (3)
MATH 393	Theory and Application of Math (3)
Writing Intensive Course (Consult with your Faculty Advisor) (3)	
<i>Suggested Electives:</i>	
EDPY 215	Technology for Teachers (3)
RDNG 406	Techniques/Procedures for Corrective and Remedial Reading (3)
EDPY 475	Measurement and Evaluation of Teaching and Learning (3)

#### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level or students entering the program late may, with careful planning, be able to complete the Early Childhood Education core requirements and graduate in a timely manner

##### Year 1: Semester 1 / Total credits 16

IGED 110	Foundation Writing 1	3
IGED 120	Foundation Quantitative Reasoning	3
GEOG 105	World Cultural Geography	3
ECED 104	History & Philosophy of ECE	3
IGED 130	Foundation Communication	3
	Health/Physical Education Elective	1

##### Year 1: Semester 2 / Total credits 16

IGED 111	Foundation Writing II	3
IGED 121	Discovery Quantitative Reasoning	3
BIOL 101	Biological Science I	3
BIOL 103	Biological Science I Laboratory	1
ECED 105	Principles of Child Development	3
	Fine Arts Elective	3

##### Year 2: Semester 3 / Total credits 16

IGED 210	Discovery Writing	3
IGED 140	Foundation Ethics	3
HIST 101	U. S. History I	3
IGED 260	Discovery Science LEC +LAB	4
	Elective	3

##### Year 2: Semester 4 / Total credits 15

IGED 250	Discovery Technology	3
HIST 102	U. S. History II	3
EDFN 222	Children/Youth in Urban Schools	3
SPED 204	Intro. to Educ. of Exceptional Children	3
HIST 279	History of DC	3

*Students must be admitted into the teacher education program before taking courses in the major beyond this level.*

##### Year 3: Semester 5 / Total credits 18

ECED 302	MM Teaching Lang. Arts/Social Studies in ECE	3
ECED 301	MM Teaching Math/Science in ECE	3
RDNG 304	Children's Literature	3
NUFS 318	Child Health and Nutrition	3
ECED 208	Emergent Literacy	3
IGED 280	Discovery Civics	3

##### Year 3: Semester 6 / Total credits 16

IGED 390	Frontier Capstone 1	1
EDFN 461	MM Teaching Creative Arts	3
EDPY 300	Ed. Psychology (writing Intensive course)	3
MATH 393	Theory & Application of Math	3
ECED 314	Teacher/Child/School/Comm. Interaction	3
ECED 230	Practicum I	3

##### Year 4: Semester 7/ Total credits 17

IGED 392	Frontier Capstone 2	2
RDNG 314	Tchg. Reading in Elem. Schools	3
EDFN 405	Classroom Management	3
PHED 394	MM Teaching Health and Phys. Ed. Elem.	3
ECED 326	Practicum II	3
ECED 304	Play Activities	3

##### Year 4: Semester 8 / Total credits 12

ECED 406	Observation and Student Tchg - ECE	12
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## Department of Education

### BA Elementary Education

#### Program Requirements

##### **Required General Education Courses (37 Credits)**

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
IGED 130	Foundation Oral Communications (3)
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

##### **Core Courses (12 credits)**

SPED 204	Introduction to Education of Exceptional Children (3)
ELED 220	Foundations of Education (3)
ELED 222	Children and Youth in Urban Schools (3)
EDPY 244	Human Development and Behavior (3)

*Students must be admitted into the teacher education program before taking courses in the major beyond this level.*

##### **Professional Studies/Academic Specialization (45 credits)**

EDPY 300	Educational Psychology (3)
ECED 304	MM for Teaching Language Arts in Elementary Schools (3)
ECED 305	MM for Teaching Social Studies in Elementary Schools (3)
ECED 306	MM for Teaching Math in Elementary Schools (3)
ECED 307	MM for Teaching Science in Elementary Schools (3)
RDNG 314	MM for Teaching Reading in Elementary Schools (3)
RDNG 406	Technique/Procedures for Corrective and Remedial Reading (3)
ECED 330	Practicum I –Elementary Education (3)
PHED 394	MM for Tchg. Health, Phys. Ed. and Safety in Elem. Schools (3)
ECED 428	Classroom Management in Elementary Schools (3)
ECED 430	Practicum II- Elementary Education (3)
EDFN 461	MM for Teaching Creative Arts in Elementary Schools (3)
ECED 434	Observation and Student Teaching in Elementary Schools (12)

##### **Other Required Courses Required Ancillary Courses(29 credits)**

Fine Arts Elective (3)
Physical Education elective (1)
BIOL 101 Biological Science I (3)
BIOL 103 Biological Science Laboratory (1)
HIST 101 U.S. History I (3)
HIST 102 U.S. History II (3)
GEOG 105 World Cultural Geography (3)
HIST 279 History of the District of Columbia (3)
RDNG 305 Children's Literature (3)
ECED 314 Teacher, Child, School, and Community Interaction (3)
MATH 393 Theory and Application of Math (3)
Writing Intensive Course (Consult with your Faculty Advisor) (3)

##### **Suggested Electives: 3 credits**

EDPY 215	Special Topics: Technology for Teachers
NUFS 318	Child Health and Nutrition
SPED 411	Developing and Implementing IEP
EDPY 475	Measurement and Evaluation of Teaching and Learning

### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the Elementary Education core requirements and graduate in a timely manner.

#### **Year 1: Semester 1 / Total Credits 16**

IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
GEOG 105	World Cultural Geography	3
EDPY 244	Human Development and Behavior	3
IGED 130	Foundation Communication	3
	Health/Physical Education Elective	1

#### **Year 1: Semester 2/ Total Credits 16**

IGED 111	Foundation Writing II	3
IGED 121	Discovery Quantitative Reasoning	3
BIOL101	Biological Science I	3
BIOL 103	Biological Science I Laboratory	1
HIST 101	US History 1	3
	Fine Arts Elective	3

#### **Year 2: Semester 3 / Total Credits 15**

IGED 210	Discovery Writing	3
EDFN 220	Children & Youth in Urban Schools	3
IGED 140	Foundation Ethics	3
IGED 250	Discovery Technology	3
HIST 279	History of DC	3

#### **Year 2: Semester 4 / Total Credits 16**

IGED 270	Discovery Diversity	3
EDFN 220	Foundations of Education	3
IGED 260	Discovery Science +Lab	4
SPED 204	Intro. to Education of Exceptional Children	3
	Elective	3

*Students must be admitted into the teacher education program before taking courses in the major beyond this level.*

#### **Year 3: Semester 5 / Total Credits 15**

ELED 305	M/M Teaching Social Studies in Elementary Schools	3
ELED 306	M/M Tchg. Math in Elem. Schools	3
ELED- 307	M/M Tchg. Science in Elem. Schools	3
IGED 280	Discovery service/Civics/Teamwork	3
MATH 393	Theory and Application of Math	3

#### **Year 3: Semester 6 / Total Credits 16**

ELED 304	M/M Tchg. Language Arts in Elem. Schools	3
EDPY 300	Educational Psychology (Writing Intensive)	3
RDNG 314	Teaching Rdng. in Elementary Schools	3
IGED 390	Frontier Capstone I	1
ELED 330	Practicum I	3
ELED 428	Classroom Management	3

#### **Year 4: Semester 7 / Total Credits 17**

EDFN 461	M/M Teaching Creative Arts	3
RDNG 406	Tech. Corrective/Remedial Reading	3
ELED 430	Practicum II	3
PHED 394	M.M Teaching Health and Physical Education in Elementary	3
IGED 392	Frontier Capstone II	2
RDNG 305	Children's Literature	3

#### **Year 4: Semester 8 / Total Credits 12**

ELED 436	Observation and Student Teaching in Elementary Schools	12
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## Department of Education

### BA Special Education

#### Program Requirements

##### Required General Education Courses (37 Credits)

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
IGED 130	Foundation Oral Communications (3)
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

##### Core Courses (12 credits)

EDPY 244	Human Development and Behavior (3)
SPED 204	Introduction to Education of Exceptional Children (3)
ELED 220	Foundations of Education (3)
ELED 222	Children and Youth in Urban School (3)

##### Professional Studies/Academic Specialization Courses (45 credits)

SPED 214	Field Experience in Special Education I (3)
SPED 314	Field Experience in Special Education II (3)
EDPY 300	Educational Psychology (3)
SPED 305	Intro. to Legal Issues in Special Education (3)
SPED 306	Behavior Management in the Classroom (3)
RDNG 314 MM	for Teaching Reading in Elementary (3) or
RDNG 315 MM	for Teaching Reading in Secondary Schools (3)
SPED 435	Methods I: Teaching, Math, Science and Technology for Special Populations (3)
SPED 436	Methods II: Teaching Language Arts and Social Studies for Special Populations (3)
SPED 485	Assessment of Exceptional Children (3)
SPED 454	Vocational Aspects of Disabilities (3)
SPED 411	Development of -IEPs (3)
SPED 474	Observation and Student Teaching -Special Ed. Elem. (12) Or
SPED 475	Observation and Student Teaching - Special Ed. Secondary. (12)

##### Other Required Courses Required Ancillary Courses (18 credits)\*

GEOG 105	World Cultural Geography (3)
HIST 279	History of the District of Columbia (3)
SPLP 312	Language Acquisition (3)
RDNG 406	Tech/Corrective Remedial Reading (3)
PHED 390	Introduction to Adaptive Physical Education (3)
MATH 393	Theory and Application of Math (3)
PSYC 210	Principles of Psychology (3)
	Fine Arts Elective (3)
	Philosophy Elective (3)
BIOL 101	Biological Science I (3)
BIOL 103	Biological Science Laboratory (1)
	Physical Education Elective (1)
	Writing Intensive Course (Consult with your Faculty Advisor) (3)

##### Suggested Electives: 3 credits

EDPY 215	Special Topics: Technology for Teachers
NUFS 318	Child Health and Nutrition
RDNG 305	Children's Literature

Comments: Candidates must earn a grade of "C" or better in all required education courses, except Observation and Student Teaching, which requires a grade of "B" or better.

#### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the Special Education core requirements and graduate in a timely manner.

##### Year 1: Semester 1 / Total Credits 16

IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
GEOG 105	World Cultural Geography	3
EDPY 244	Human Development and Behavior	3
IGED 130	Foundation Communication	3
	Health/Physical Education Elective	1

##### Year 1: Semester 2 / Total Credits 16

IGED 111	Foundation Writing II	3
IGED 121	Discovery Quantitative Reasoning	3
BIOL101	Biological Science I	3
BIOL 103	Biological Science I Laboratory	1
PYCH 210	Principles of Psychology	3
	Fine Arts Elective	3

##### Year 2: Semester 3 / Total Credits 15

IGED 210	Discovery Writing	3
EDFN 220	Children & Youth in Urban Schools	3
IGED 140	Foundation Ethics	3
IGED 250	Discovery Technology	3
HIST 279	History of DC	3

##### Year 2: Semester 4 / Total Credits 16

IGED 270	Discovery Diversity	3
EDFN 220	Foundations of Education	3
IGED 260	Discovery Science +Lab	4
SPED 204	Intro. to Education of Exceptional Children	3
	Elective	3

##### Year 3: Semester 5 / Total Credits 18

EDPY 300	Educational Psychology	3
SPLP 312	Language Acquisition	3
SPED 214	Field Experience in Spec. Ed. I	3
SPED 435	Methods I: Tchg Math and Science to Special Populations	3
RDNG 314	Tchg. Reading in Elem. Schools	3
IGED 280	Discovery service/Civics/Teamwork	3

##### Year 3: Semester 6 / Total Credits 16

SPED 485	Assessment of Exceptional Children	3
SPED 305	Intro. To Legal Issues in Spec. Ed.	3
SPED 306	Behavior Mgmt in Classroom	3
SPED 314	Field Experience in Spec. Education II	3
SPED 436	Methods II: Tchg Language Arts to Special Populations	3
IGED 390	Frontier Capstone I	1

##### Year 4: Semester 7 / Total Credits 17

SPED 411	Development/Admin of IEPs	3
SPED 454	Vocational Aspects of Disabilities	3
MATH 393	Theory and Application of Math	3
PHED 390	Intro. To Adaptive Physical Education	3
RDNG 406	Tech. Corrective/Remedial Reading	3
IGED 392	Frontier Capstone II	2

##### Year 4: Semester 8 / Total Credits 12

SPED 474	Observation and Student Teaching in Special Education (Elementary)	12
or		
SPED 475	Observation and Student Teaching in Special Education (Secondary)	



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## Department of Education

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### **MASTER OF ARTS DEGREE IN SPECIAL EDUCATION**

The Master of Arts degree in Special Education is designed to offer advanced graduate training and professional preparation for careers as master teachers in public or private schools and other educational institutions. The goals of the Master's program are oriented toward students acquiring advanced knowledge and professional competencies in the areas of psycho-social, socio cultural, and psycho-educational development, and behavior management or special populations of children and youth. The program is structured to emphasize interrelated course work in the following areas of learning: instruction and teaching methods, educational research and design, diagnostic testing and applied instructional interventions, and educational programming and behavior management in the classroom setting. It is primarily directed toward individuals who hold teaching certification and have had teaching experience in special education or related disciplines. Upon satisfactory completion of the program, students are prepared to fulfill a variety of roles related to teaching and instructional practices in schools and institutions serving special populations of children and youth.

#### **Curriculum Requirements**

The completion of a minimum of 39 semester hours is required for the Master of Arts degree in Special Education. Students who have less than one year of teaching experience in special education are required to complete 6 hours of internship. Candidates who are seeking specialization in one of two categorical areas – Serious Emotional Disturbance or Specific Learning Disabilities - or who wish to study Special Education and Early Childhood Education will be required to take additional courses.

#### **Course Requirements**

##### **MASTER OF ARTS DEGREE IN SPECIAL EDUCATION**

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###### ***Core Courses: 12 credit hours***

SPED 504 Foundations of Special Education  
SPED 557 Behavioral and Classroom Management  
ELED 684 Introduction to Educational Research  
MATH 599 Basic Statistical Methods

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###### ***Academic Specialization: 21 credit hours***

Non Categorical K-12  
SPED 505 Curriculum Methods for Diagnostic and Adaptive Teaching  
SPLP 509 Language Development and Remediation  
SPED 515 Development, Implementation, Monitoring IEP's  
SPED 537 Psychology of Exceptional Children and Youth  
SPED 554 Vocational Aspects of Disabilities  
SPED 585 Assessment of Exceptional Children  
SPED 588 Current Trends and Legal Issues in Special Education

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###### ***Practicum/Internship: 6 credit hours\*\****

SPED 597 Internship in Special Education I  
SPED 598 Internship in Special Education II  
**\*\*Required of candidates who have less than one year of teaching experience in special education.**

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###### ***Research Courses - for Thesis Option Only: 6 credit hours***

Students electing the thesis option are required to enroll in the Thesis course: SPED 696 Thesis

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###### ***Suggested Electives: 6 credit hours***

SPED 590 Research Seminar in Special Education  
SPED 589 Special Topics: Technology for Teachers  
SPLP 695 Seminar in Bilingualism  
SPLP 698 Sign Language  
PSYC 537 Life Span Development  
PSYC 535 Tests and Measurements  
1303 589 Teaching Adults with Learning Disabilities

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###### ***Department of Education Certification in Serious Emotional Disturbance: 15 credit hours***

SPED 591 Psychological and Behavior Characteristics of the Serious Emotionally Disturbed  
SPED 592 Behavior Management for Children and Youth with Serious Emotional Disturbance  
SPED 593 Educational Programming and Implementation for the Serious Emotionally Disturbed  
SPED 597 Internship in Special Education I  
SPED 598 Internship in Special Education II

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###### ***Department of Education Certification in Specific Learning Disabilities: 15 credit hours***

SPED 594 Psychological and Behavioral Characteristics of Children and Youth with Specific Learning Disabilities  
SPED 595 Diagnostic Techniques and Intervention for Children and Youth with Specific Learning Disabilities  
SPED 596 Educational Programming and Curriculum Modification in Basic Skills Instruction for the Specific Learning Disabled  
SPED 597 Internship in Special Education I  
SPED 598 Internship in Special Education II

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### **Graduate Program in the Department of Education Admissions Requirements**

Students must apply for admissions into the graduate program through the Department of Education and be admitted to graduate candidacy before taking more than 9 semester hours. Students may be admitted on a provisional basis as non-degree seeking. To be admitted into the program, students must meet all admissions requirements of the University of the District of Columbia. In addition, students must meet the following Department of Education requirements to be fully admitted into the Master of Arts Degree Program in Special Education:

- Submit a completed Graduate Application for Admission to the University;
- Show proof of a baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.8;
- Earn a qualifying score on Praxis I (Student must submit an original copy of Praxis scores to Graduate Coordinator in the Department of Education);
- Demonstrated proficiency in writing is required of all graduate students. Students must take the Graduate Record Examination (GRE) Analytical Writing Subtest as a requirement of admission. The minimal acceptable score is a 4.0. Students failing to meet the criterion score may be admitted conditionally. If admitted conditionally, a student must enroll in and pass (with a grade of B or better) the University's graduate writing proficiency course ENGL-515 during their semester of admission to the university.
- Satisfy all undergraduate prerequisite courses, where applicable, that have been determined by the Department of Education's Graduate Admissions Committee.
- Demonstrate basic computer literacy skills;
- Be interviewed by the Department of Education's Graduate Admissions Committee. The interview will include a brief reflective writing activity.

The student will receive written notice from the Graduate Studies Committee as to his/her eligibility status for admission to the program under the following conditions:

- Applicant is approved to major in the program area, unconditionally

Applicant is conditionally approved to major in the program area indicated. Letter is sent to applicant indicating the condition(s). The Graduate Studies Committee will determine the criteria for conditional acceptance as relevant to the student. The student must complete all criteria as required within the first semester of graduate studies in order to continue in the program.

- Applicant is approved to register as a non-degree student for a maximum of 9 credit hours.
- Applicant is approved for readmission. If approval is conditional, a letter is enclosed indicating the reason(s) for this decision.
- Applicant is authorized to register as a Special Student, for one term only in the program.
- Applicant is ineligible for admission. Letter is sent to applicant indicating the reason(s) for this decision.

### **Academic Standing**

In order to continue matriculation in the graduate program, the student must remain in good academic standing. The University requires that graduate students maintain a cumulative GPA (CGPA) of 3.0 in order to be considered in good standing. Once the student is advanced to candidacy in a teacher education program, the candidate must:

- Maintain 3.0 cumulative grade point average to remain in good academic standing. Students are required to earn a grade of "B" or higher in all major courses.
- Consult with his/her advisor each semester.
- Maintain membership in a professional organization
- Continue to upgrade portfolio
- Show continuous growth in all professional areas as specified by the Department.

### **Advancement to Candidacy**

Students must apply for admission to candidacy through the Department of Education in the graduate teacher education program before taking more than 9 semester hours of core work taken in residence. In order to advance to candidacy, the student must meet the following requirements:

- Submit a completed Application for Admission to Candidacy to Graduate Programs;
- Submit an official transcript showing proof of an earned cumulative grade point average of 3.0 in the first 9 semester hours of graduate core work taken in residence.
- Earn a qualifying score on all 3 components of the Praxis1 Academic Skills Assessment in Reading, Writing, and Mathematics Examination.
- Submit two letters of recommendation that must be completed by persons who have direct knowledge of the student's potential to become an effective teacher/administrator;
- Submit a Work Experience Form, video portfolio, or other performance-based entry documenting the student's entering knowledge, skills, and dispositions related to the profession;
- Be interviewed by the Graduate Studies Committee, Department of Education. The interview will include a written reflective activity relevant to their field of study.
- Demonstrate specific computer literacy. A laboratory skills assessment experience will be arranged during the interview session.

Students who do not have an undergraduate degree in education or a related academic discipline will be required to complete additional undergraduate courses depending upon the requirements of their major. These courses must be satisfactorily completed before taking graduate courses applicable to the degree. Students who have less than one year of evaluated teaching experience in the program discipline are required to complete 6 hours supervised internship/teaching experience with a grade of B or higher. Any person not accepted to candidacy will be prohibited from further enrollment as a degree-seeking candidate in the Department of Education until specified conditions have been fulfilled as deemed appropriate by the Department of Education. The Teacher Education Council and/or the Graduate Studies Committee and the Chairperson of the Department of Education will make final acceptance to candidacy in the Unit's graduate program.

### **Academic Probation**

If the CGPA falls below 3.0 in a given semester, the graduate student or candidate is placed on academic probation and must retake courses or enroll in pre-approved elective courses in order to improve his/her CGPA. The course load is reduced from fulltime to part-time (6 hours). These students will be notified by the Dean's Office in writing of their probationary status. They are required to rectify their academic standing (bring the CGPA to a minimum of 3.0).



### **Academic Suspension**

Academic suspension occurs when a student fails to meet the requirements of their academic probation. Students who are placed on academic suspension may seek reinstatement one semester following the semester of their suspension. Upon reinstatement, the student must bring their academic status to the level of good standing. If the student seeks reinstatement two or more semesters after their semester of suspension, then he/she must apply for readmission to the University.

Transfer Credit: Students may transfer no more than 9 credit hours of graduate credit earned from an accredited institution. Transfer courses will be evaluated and accepted toward the degree, however, on the basis of their applicability to the requirements of the program. No credits will be accepted that are more than 5 years old.

### **Graduate Writing Proficiency Requirement:**

Demonstrated proficiency in writing is required of all graduate students. Students must take the Graduate Record Examination (GRE) Analytical Writing Subtest as a requirement of admission. The minimal acceptable score is a 4.0. Students failing to meet the criterion score may be admitted conditionally. If admitted conditionally, a student must enroll in and pass (with a grade of B or better) the University's graduate writing proficiency course ENGL 515 during their semester of admission to the university.

### **Written Comprehensive Examination**

Students are required to pass a written comprehensive examination, which is taken during the final semester of the student's academic degree program.

The dates for the Examination are as follows:

#### **Fall Semester**

Orientation - 2nd Friday in September

Examination - 2nd Friday in October

Retake (If applicable) - 3rd Friday in November

#### **Spring Semester**

Orientation - 2nd Friday in February

Examination - 2nd Friday in March

Retake (If applicable) - 3rd Friday in April

***Students who fail to earn a passing score on the Written Comprehensive Examination after two attempts will be dismissed from the graduate program.***

### **Thesis**

(Optional) The submission of an acceptable thesis in lieu of six additional credit hours of course work may be approved by the student's academic advisor.



## **The Department of English, World Languages and Culture**

☎ 202.274.5780

### **Mission**

The Department of English, World Languages and Culture supports the mission of the College of Arts and Sciences and University of the District of Columbia by providing students with programs, and courses developed and taught by faculty with a commitment to [scholarship](#), and service. The Department supports the General Education of the University by providing interdisciplinary courses in composition, critical reading, and critical thinking.

The Department of English, World Languages and Culture offers the Bachelor of Arts degree in English and courses in Arabic Chinese, French, and Spanish. In collaboration with the Department of Education, it provides courses for teacher certification in English, French and Spanish.

For all University students, the Department provides a sequenced program (IGED 110, 111, and 210) in English Composition to develop reading, writing, and research proficiency. In addition, the program affords students the opportunity to read and analyze literary works to develop their general knowledge and of the aesthetic and social dimensions of literature.

### **Department Offerings**

#### **Bachelor Degrees:**

B.A. in English

#### **Honor Society**

Sigma Tau Delta international English society  
*Future Club Student Group*

### **Department Policy Changes**

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree. Policies of the Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.



## **The Bachelor of Arts in English**

The Bachelor of Arts in English broadens and deepens students' understanding of language and literature and develops skills in analysis, research, and writing. To meet these objectives, the Department offers a variety of courses in language and in literature (arranged by area, period, genre, movement, or special topic). Career opportunities for English majors vary. The English major prepares students for teaching (at the secondary level) and is an appropriate baccalaureate preparation for careers in law, medicine, business, and government.

Students interested in becoming English majors should contact the English Department to be assigned an advisor. Thereafter, students are required to meet with advisors each semester before registration and to have the appropriate advisor's signature on the registration form.

Students become majors upon completion of ENGL 213 with a grade of "B" or higher.

Prospective majors are expected to earn grades of "B" or higher in composition and literature courses and should declare a major in English before taking ENGL 213. The Department encourages English majors to maintain a GPA of at least 3.0; the required minimum GPA is 2.5. A grade of "B" or higher is required in ENGL 213, and the course may be repeated once. A minimum grade of "C" is required in other English courses. A course may be retaken only once. On the recommendation of an English advisor, a student may be required to take additional courses. IGED 210 is a prerequisite for all non-English majors who take advanced English courses.

All current and prospective undergraduate students are encouraged to visit or call the Department of English, World Languages and Culture for curricula information and advising. Program major academic worksheets and general information materials are available online, the department office, and the Academic Advising Center.

### **Credit Statement**

Total credit hours of college-level courses required for graduation: 120

### **Admission Statement**

The English Major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the English Major.

### **GPA statement**

Students must earn a grade of B or higher in Engl-213, Introduction to Critical Writing, to become an English major and GPA of 2.5 and an average of "C" in all required 45 courses.

### **Residency Statement**

Of the 45 required credits, 21 must be taken in residence at UDC

## **Program Requirements**

### ***Required General Education Courses (37 Credits)***

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
IGED 130	Foundation Oral Communications (3)
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

### ***Required Core Courses (18 credits)***

ENGL 213	Introduction to Critical Writing (3)
ENGL 314	The Structure of English (3)
ENGL 315	History of the English Language (3)
ENGL 316	Advanced Grammar (3)
ENGL 330	British Literature I (3)
ENGL 331	British Literature II (3)
ENGL 351	American Literature I (3)
ENGL 352	American Literature II (3)
ENGL 354	African-American Literature (3)
ENGL 439	Shakespeare (3)
ENGL 467	Principles of Literary Criticism I (3)
or	
ENGL 468	Principles of Literary Criticism I (3)
Electives in English	(12)
Writing Intensive Course	(Consult with your Faculty Advisor) (3)

### ***Electives (65 Credits)***





## The Department of Visual and Performing Arts

The Department of Visual and Performing Arts delivers programs in Art, Graphic Design, Graphic Communications, and Music; it also provides a creative environment where discipline, technique, and skill are developed and nurtured. The Department is committed to maintaining its role as an advocate and provider of a broad range of cultural events, experiences, educational opportunities, and outreach programs that serve the university and community. The distinguished, student-centered faculty brings years of impressive creative, artistic, and technical expertise, international recognition, and academic credentials appropriate to the respective programs.

### Department Offerings:

#### B.A. Interdisciplinary Art

*specializations:*

- Studio Art
- Photography

#### B.F.A. Graphic Design

#### B.M. Music

#### Music Performance

*Concentrations:*

- Gospel Music
- Jazz Studies
- Keyboard
- Instrumental Music Studies
- Voice

### Art Program

The Art Program is based on the premise that a solid foundation in technical skills and art theory strengthen growth and creativity. The general objectives of the program are: to provide students with marketable artistic skills; to increase awareness of the role of art and design in contemporary culture and throughout history; to increase conceptual thinking and aesthetic awareness; to inspire collaboration among student artists and designers; and to serve as an artistic resource for the community.

The Art Program offers several degree options: the Interdisciplinary Art Bachelor of Arts degree (BA), and the Interdisciplinary Art Bachelor of Arts: specialization in Photography degree (BA.) and the Graphic Design Bachelor of fine Arts Degree (B.F.A.)

**The Interdisciplinary Art/Studio Arts Degree** prepares students for work as exhibiting studio artists, and for positions in art museums and galleries, including alternative spaces and art-related government agencies. Careers in the arts include animation, book design, art therapy, art education, sculpting, ceramics, gallery management, landscape and portrait painting, installation and visual display arts, makeup and special effects, textile design, art conservation, costume design, theatrical set design, cartooning, art direction, and illustration. Members of the award-winning art program faculty have participated extensively in local, national, and international gallery exhibits. The Art Program also manages Gallery 42, a non-profit art gallery for exhibitions of both professional and student artwork.

**The Interdisciplinary Art/ Photography Degree** is another aspect of the Art Program at UDC. The Photography program provides students with technical skills, increases awareness of the history of photography and visual culture, exposes students to both commercial and artistic applications of photography, creates collaborative opportunities among student photographers, and gives students the professional edge to find a rewarding career in photography. The Interdisciplinary Art/Photography program prepares students for work as exhibiting fine art photographers, commercial photographers, photojournalists, teaching and photography instructors, and as artists working with agencies that utilize and promote photography. Members of the Interdisciplinary Art/Photography program faculty have exhibited in

local, national, and international photography exhibits. Faculty members also have outstanding experience in commercial photography.

### Graphic Design Bachelor of Fine Art Degree

The Graphic Design B.F.A. is the first professional degree for those seeking advanced study in design, and it prepares students for work as professional print and web designers. The curriculum helps students to develop the knowledge, skills, and portfolio for professional design positions in commercial institutions, design studios, and government agencies. The Graphic Design degree provides a well-rounded educational experience for students seeking strong creative and technical design skills. Members of the UDC Graphic Design Program faculty have created design work that has been printed, published, and circulated in local, regional, national, and international venues.

### Performing Arts Program

The Performing Arts component offers a degree program Music and courses in Theatre and Dance. The Bachelor of Music–Music Performance (B.M.) degree offers five areas of concentration: Gospel Music, Jazz Studies, Keyboard, Instrumental Music Studies, and Voice. This four-year degree program prepares students for performing careers and for graduate study in performance, pedagogy and related areas. A revised Bachelor of Music–Music Education (Pre-Certification) (B.M.) is under review. This four-year degree will prepare student for teaching careers and is designed for students intending to complete the additional requirements for P-12 teacher certification or in anticipation of enrollment in the Master of Arts in Teaching Program (MAT).

The Music Program provides specialized professional training to prepare students as performers, teachers and as creative individuals in the field of music. The program offers a diverse curriculum, general courses for cultural enrichment, and a variety of performing opportunities in an environment that allows for personal growth. The program offerings are designed to serve the educational and artistic needs of the community and provide a vital resource that enriches the cultural life of the University and the Washington, DC metropolitan area.

### Honor Society and Student Organizations

- **Art Program:** Art Student Union
- **Music Program:** Music Student Senate, Chorale (Organization), UDC Voices (Organization), MENC Student Chapter (Music Educators National Conference)
- **Theatre Program:** UDC Drama Club

### Department Policy Changes

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

### Art Program Admission Statement

To be admitted to the Art Program at UDC (Interdisciplinary Studio Art or Photography, Graphic Design), students must apply to the Art Program via a written request to the Art Program Coordinator, and also provide the required introductory portfolio for review.

Total Credit Hours of College-Level Courses Required for Graduation:  
**Interdisciplinary Art Bachelor of Arts:** Total Credit Hours of College-Level Courses Required for Graduation: 120 credit hours

**Graphic Design Bachelor of Fine Arts:** Total Credit Hours of College-Level Courses Required for Graduation: 137 credit hours

**Bachelor of Music:** Total Credit Hours of College-Level Courses Required for Graduation: 125 credit hours



## The Department of Visual and Performing Arts

### BA Art/Interdisciplinary Studio Art Major

#### Program Requirements

##### **Required General Education Courses (37 Credits)**

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
IGED 130	Foundation Oral Communications (3)
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

##### **Required Courses – Interdisciplinary Art (36 credits)**

ARTD 105	Foundations of Design (3)
ARTD 124	Computer Art (3)
ARTS 101	Introduction to Drawing (3)
ARTS 102	Figure Drawing (3)
ARTS 115	Visual Thinking (3)
ARTS 145	Basic Photography (3)
ARTS 231	Introduction to Painting (3)
ARTS 281	World Art History: Ancient to Renaissance (3)
ARTS 282	World Art History: Renaissance to Contemporary (3)
ARTS 490	Senior Portfolio (3)
ARTS 480	Interdisciplinary Art I (3)
ARTS 481	Interdisciplinary Art II (3)

##### **Required Courses Interdisciplinary Art Degree/Studio Art Major (24 credits)**

ARTD 201	Computer Illustration (3)
ARTS 241	Introduction to Printmaking (3)
ARTS 251	Introduction to Sculpture (3)
ARTS 261	Introduction to Ceramics (3)
ARTS 305	Advanced Figure Drawing (3)
ARTS 331	Advanced Painting (3)
ARTS 341	Advanced Printmaking (3)
ARTS 394	Illustration Techniques (3)

##### **Interdisciplinary Art/Studio Art Major Electives (14)**

Interdisciplinary Art/Studio Art majors must also take an additional 14 credits of elective courses, with the approval of their Faculty Advisor. Recommended are additional Studio Art, Art History, Graphic Design, or Photography courses.

##### **Interdisciplinary Art Degree Art History Electives (6)**

Interdisciplinary Art students are required to take an additional 6 credit hours of Art History electives with the approval of their Faculty Advisor

#### **Model Plan of Study**

This suggested program schedule illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the Special Education core requirements and graduate in a timely manner.

#### **BA Art/Interdisciplinary Studio Art Major**

##### **Year 1: Semester 1**

IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
IGED 130	Foundation Oral Communications	3
ARTS 105	Foundations of Design	3
ARTS 101	Introduction to Drawing	3
		Total 15

##### **Year 1: Semester 2**

IGED 111	Foundation Writing II	3
IGED 220	Discovery Quantitative Reasoning	3
ARTS 145	Basic Photography	3
ARTS 115	Visual Thinking	3
GRCT 109	Digital Applications	3
		Total 15

##### **Year 2: Semester 3**

IGED 140	Foundation Ethics	3
IGED 210	Discovery Writing	3
ARTS 231	Introduction to Painting	3
ARTS 281	World Art History (Ancient to Renaissance)	3
ARTS 261	Introduction to Ceramics	3
ARTD 124	Computer Art	3
		Total 18

##### **Year 2: Semester 4**

IGED 260	Discovery Science + Lab	4
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
ARTS 282	World Art History (Renaissance to Contemporary)	3
ARTS 241	Introduction to Printmaking	3
		Total 16

##### **Year 3: Semester 5**

IGED 391	Frontier Capstone I	1
IGED 250	Discovery Technology	3
ARTS 394	Illustration Techniques	3
ARTS 251	Introduction to Sculpture	3
ARTD 201	Computer Illustration	3
		Total 13

##### **Year 3: Semester 6**

IGED 392	Frontier Capstone II	2
ARTS 305	Advanced Figure Drawing	3
ARTS 341	Advanced Printmaking	3
ARTS	Art History Elective	3
ARTS	Major Elective	2
		Total 13

##### **Year 4: Semester 7**

ARTS 480	Interdisciplinary Art I	3
ARTS 490	Senior Portfolio	3
ARTS	Major Elective	3
ARTS	Art History Elective	3
		Total 12

##### **Year 4: Semester 8**

ARTS 481	Interdisciplinary Art II	3
ARTS	Major Elective	3
ARTS	Major Elective	3
ARTS	Major Elective	3
		Total 12



## The Department of Visual and Performing Arts

### BA Art/Interdisciplinary Photography

#### Program Requirements

#### **Required General Education Courses (37 Credits)**

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
IGED 130	Foundation Oral Communications (3)
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

#### **Required Courses – Interdisciplinary Art (36 credits)**

ARTD 105	Foundations of Design (3)
ARTD 124	Computer Art (3)
ARTS 101	Introduction to Drawing (3)
ARTS 102	Figure Drawing (3)
ARTS 115	Visual Thinking (3)
ARTS 145	Basic Photography (3)
ARTS 231	Introduction to Painting (3)
ARTS 281	World Art History: Ancient to Renaissance (3)
ARTS 282	World Art History: Renaissance to Contemporary (3)
ARTS 490	Senior Portfolio (3)
ARTS 480	Interdisciplinary Art I (3)
ARTS 481	Interdisciplinary Art II (3)

#### **Required Courses Interdisciplinary Art Degree/Photography Major (24 credits)**

ARTS 206	Intermediate Photography (3)
ARTS 208	Film Photography and Wet Processing (3)
ARTS 280	History of Photography (3)
ARTS 350	Advertising and Publication Photography (3)
ARTS 473	Advanced Digital Photography (3)
ARTS 474	Advanced Photography (3)
ARTS 354	Photographic Lighting (3)
ARTS 354	Radical Image (3)

#### **Interdisciplinary Art/Photography Major Electives (14)**

Interdisciplinary Art/Photography majors must also take an additional 14 credits of elective courses, with the approval of their Faculty Advisor. Recommended are additional Studio Art, Art History, Graphic Design, or Photography courses.

#### **Interdisciplinary Art Degree Art History Electives (6)**

Interdisciplinary Art students are required to take an additional 6 credit hours of Art History electives with the approval of their Faculty Advisor

#### **Model Plan of Study**

This suggested program schedule illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the Special Education core requirements and graduate in a timely manner.

#### **Year 1: Semester 1**

IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
IGED 130	Foundation Oral Communications	3
ARTS 105	Foundations of Design	3
ARTS 101	Introduction to Drawing	3
		Total 15

#### **Year 1: Semester 2**

IGED 111	Foundation Writing II	3
IGED 220	Discovery Quantitative Reasoning	3
ARTS 145	Basic Photography	3
ARTS 115	Visual Thinking	3
GRCT 109	Digital Applications	3
		Total 15

#### **Year 2: Semester 3**

IGED 140	Foundation Ethics	3
IGED 210	Discovery Writing	3
ARTS 231	Introduction to Painting	3
ARTS 281	World Art History (Ancient to Renaissance)	3
ARTS 206	Intermediate Photography	3
ARTS 286	Radical Image	3
		Total 18

#### **Year 2: Semester 4**

IGED 260	Discovery Science + Lab	4
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
ARTS 282	World Art History (Renaissance to Contemporary)	3
ARTS 208	Film Photography and Wet Processing	3
		Total 16

#### **Year 3: Semester 5**

IGED 391	Frontier Capstone I	1
IGED 250	Discovery Technology	3
ARTD 124	Computer Art	3
ARTS 350	Advertising and Publication Photography	3
ARTS 354	Photographic Lighting	3
ARTS	Art History Elective	3
		Total 16

#### **Year 3: Semester 6**

IGED 392	Frontier Capstone II	2
ARTS 240	Photojournalism	3
ARTS 280	History of Photography	3
ARTS	Major Elective	3
ARTS	Major Elective	3
		Total 14

#### **Year 4: Semester 7**

ARTS	Art History Elective	3
ARTS 473	Advanced Digital Photography	3
ARTS 478	Photography Portfolio Seminar	3
ARTS 480	Interdisciplinary Art I	3
ARTS	Major Elective	3
		Total 15

#### **Year 4: Semester 8**

ARTS 474	Advanced Photography	3
ARTS 481	Interdisciplinary Art II	3
ARTS	Major Elective	3
ARTS	Major Elective	3
		Total 12



## The Department of Visual and Performing Arts

### BFA Graphic Design Program Requirements

#### Required General Education Courses (37 Credits)

IGED 110	Foundation Writing I (3)
IGED 120	Foundation Quantitative Reasoning (3)
IGED 130	Foundation Oral Communications (3)
IGED 111	Foundation Writing II (3)
IGED 220	Discovery Quantitative Reasoning (3)
IGED 140	Foundation Ethics (3)
IGED 250	Discovery Technology (3)
IGED 210	Discovery Writing (3)
IGED 260	Discovery Science + Lab (4)
IGED 270	Discovery Diversity (3)
IGED 280	Discovery Civics (3)
IGED 391	Frontier Capstone I (1)
IGED 392	Frontier Capstone II (2)

#### Required Courses – Graphic Design (33 credits)

ARTD 113	Graphic Design I (3)
ARTD 208	History of Graphic Design (3)
ARTD 212	Graphic Design II (3)
ARTD 494	Graphic Design Practicum (3)
GRCM 307/	Color Management Lecture (2)
308	Color Management Lab (1)
GRCM 309/	Digital Imaging II Lecture (2)
310	Digital Imaging II Lab (1)
GRCM 311	Graphics Management (3)
GRCT 107/	Desktop Publishing Lecture (2)
108	Desktop Publishing Lab (1)
GRCT 109	Digital Applications (3)
GRCT 113/	Digital Imaging I Lecture (2)
114	Digital Imaging I Lab (1)
GRCT 214/	Design to Print Practicum Lecture (2)
215	Design to Print Practicum Lab (1)

#### Required Ancillary Courses (54 credits)

ARTD 105	Foundations of Design (3)
ARTD 124	Computer Art (3)
ARTD 126	Typography (3)
ARTD 201	Computer Illustration (3)
ARTD 207	Web Design (3)
ARTD 213	Publication Design (3)
ARTD 275	Portfolio and Marketing Workshop (3)
ARTS 101	Introduction to Drawing (3)
ARTS 102	Figure Drawing (3)
ARTS 115	Visual Thinking (3)
ARTS 145	Basic Photography (3)
ARTS 231	Introduction to Painting (3)
ARTS 281	World Art History: Ancient to Renaissance (3)
ARTS 282	World Art History: Renaissance to Contemporary (3)
ARTS 303	Animation (3)
ARTS 394	Illustration Techniques (3)
ARTS 409	Animation II (3)
ARTS 490	Senior Portfolio (3)

#### Graphic Design Major Electives (13)

Graphic Design majors must also take an additional 3 credits of an Art History elective, and an additional 10 credits of elective courses. Recommended are additional Studio Art, Art History, Graphic Design, or Photography courses. These courses are chosen with the approval of the Faculty Advisor.

#### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the Special Education core requirements and graduate in a timely manner.

#### Year 1: Semester 1 / Total Credits 18

IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
IGED 130	Foundation Oral Communications	3
ARTS 105	Foundations of Design	3
ARTS 101	Introduction to Drawing	3
GRCT 109	Digital Applications	3

#### Year 1: Semester 2 / Total Credits 18

IGED 111	Foundation Writing II	3
IGED 220	Discovery Quantitative Reasoning	3
ARTD 113	Graphic Design I	3
ARTS 145	Basic Photography	3
ARTS 115	Visual Thinking	3
GRCT 107	Desktop Publishing Lecture	2
GRCT 108	Desktop Publishing Lab	1

#### Year 2: Semester 3 / Total Credits 18

IGED 140	Foundation Ethics	3
IGED 210	Discovery Writing	3
ARTD 126	Typography	3
ARTD 201	Computer Illustration	3
GRCT 113	Digital Imaging I Lecture	2
GRCT 114	Digital Imaging I Lab	1

#### Year 2: Semester 4 / Total Credits 15

IGED 260	Discovery Science + Lab	4
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
ARTD 207	Web Design	3
ARTD 208	History of Graphic Design	3
ARTS	Major Elective	2

#### Year 3: Semester 5 / Total Credits 16

IGED 391	Frontier Capstone I	1
IGED 250	Discovery Technology	3
ARTD 124	Computer Art	3
ARTD 212	Graphic Design II	3
ARTD 213	Publication Design	3
ARTD 275	Portfolio and Marketing Workshop	3
ARTS 281	World Art History (Ancient to Renaissance)	3

#### Year 3: Semester 6 / Total Credits 16

IGED 392	Frontier Capstone II	2
ARTS 303	Animation	3
GRCT 214	Design to Print Practicum Lecture	2
GRCT 215	Design to Print Practicum Lab	1
ARTS 102	Figure Drawing	3
GRCM 309	Digital Imaging II Lecture	2
GRCM 310	Digital Imaging II Lab	1
ARTS	Major Elective	2

#### Year 4: Semester 7 / Total Credits 15

ARTS 231	Introduction to Painting	3
ARTS 282	World Art History (Renaissance to Contemporary )	3
ARTS 394	Illustration Techniques	3
ARTS 409	Animation II	3
ARTS 90	Senior Portfolio	3

#### Year 4: Semester 8 / Total Credits 15

ARTD 494	Graphic Design Practicum	3
GRCM 311	Graphics Management	3
ARTS	Art History Elective	3
ARTS	Major Elective	3
ARTS	Major Elective	3



## The Department of Visual and Performing Arts

### BM Music Performance Program Requirements Concentration 1: Gospel Music

#### Admission Statement

To be admitted to any of the degree programs, students must apply to the Music Program, audition in their performance area(s), and pass the Music program's placement examinations.

#### Comments for Majors in Bachelor of Music – Music Performance:

A grade point average of 2.0 is required for all music courses and 3.0 for all applied major courses. A recital in the junior and senior year is required. The student must complete the appropriate 400-level applied major course each fall and spring until the senior recital is performed and accepted.

For the Program of Study for each concentration, students should consult with their departmental advisor.

#### Required General Education Courses (37 Credits)

IGED 110 Foundation Writing I (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 140 Foundation Ethics (3)  
IGED 250 Discovery Technology (3)  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4) or  
PHYS 115/ Physics of Music (Lec) (3)  
117 Physics of Music (Lab) (1)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1)  
IGED 392 Frontier Capstone II (2)

#### Required Courses (88 credits)

MUSC Performing Ensemble Courses\* (8)  
MUSC-100 Materials of Music I (3)  
MUSC-101 Materials of Music II (3)  
MUSC-102 Ear Training and Sight Singing I (2)  
MUSC-103 Ear Training and Sight Singing II (2)  
MUSC-106 History of African-American Music (3)  
MUSC-181 Gospel Music Improvisation I (1)  
MUSC-181 Gospel Music Improvisation I (1)  
MUSC-200 Materials of Music III (3)  
MUSC-201 Materials of Music IV (3)  
MUSC-202 Ear Training and Sight Singing III (2)  
MUSC-203 Ear Training and Sight Singing IV (2)  
MUSC-270 Computer Applications to Music I (3)  
MUSC-281 Gospel Music Improvisation II (1)  
MUSC-281 Gospel Music Improvisation II (1)  
MUSC-290 Keyboard Harmony I (1)  
MUSC-291 Keyboard Harmony II (1)  
MUSC-372 Choral Conducting (3)  
MUSC-381 Gospel Music Improvisation III (1)  
MUSC-381 Gospel Music Improvisation III (1)  
MUSC-382 Gospel Arranging I (2)  
MUSC-383 Gospel Arranging II (2)  
MUSC-384 History and Aesthetics of Gospel Music I (2)  
MUSC-385 History and Aesthetics of Gospel Music II (2)  
MUSC-386 Principles of Gospel Music Pedagogy (2)  
MUSC-410 BM Seminar (2)  
MUSC-481 Gospel Music Improvisation IV (1)  
MUSC-481 Gospel Music Improvisation IV (1)  
Writing Intensive Course in the Major (3)

#### Electives (General & Music) (6)

\*Specific Performing Ensemble Courses are required in certain

programs and approved by department.

#### Applied Major (16 credits)

Select one of the following three sequences:

Applied Major Keyboard:

MUSC 115, 115, 215, 215, 315, 315, 415, 415

Applied Major Voice:

MUSC 125, 125, 225, 225, 325, 325, 425, 425

Applied Major Instrument

MUSC 135, 135, 235, 235, 335, 335, 435, 435

#### Applied Minor (4 credits)

If Applied Major Voice or Applied Major Instrument is selected:

Applied Minor Keyboard: MUSC 116, 116, 216, 216

If Applied Major Keyboard is selected, select one of the following three sequences:

Applied Minor Keyboard: MUSC 116, 116, 216, 216

Applied Minor Voice: MUSC 126, 126, 226, 226

Applied Minor Instrument: MUSC 136, 136, 236, 236



## The Department of Visual and Performing Art

### BM Music Performance Program Requirements Concentration 2: Jazz Studies

#### Admission Statement

To be admitted to any of the degree programs, students must apply to the Music Program, audition in their performance area(s), and pass the Music program's placement examinations.

#### Comments for Majors in Bachelor of Music – Music Performance:

A grade point average of 2.0 is required for all music courses and 3.0 for all applied major courses. A recital in the junior and senior year is required. The student must complete the appropriate 400-level applied major course each fall and spring until the senior recital is performed and accepted.

For the Program of Study for each concentration, students should consult with their departmental advisor.

#### **Required General Education Courses (37 Credits)**

IGED 110 Foundation Writing I (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 140 Foundation Ethics (3)  
IGED 250 Discovery Technology (3)  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
or  
PHYS 115/ Physics of Music (Lec) (3)  
117 Physics of Music (Lab) (1)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1)

#### **Required Courses (88 credits)**

MUSC Performing Ensemble Courses\* (8)  
MUSC-100 Materials of Music I (3)  
MUSC-101 Materials of Music II (3)  
MUSC-102 Ear Training and Sight Singing I (2)  
MUSC-103 Ear Training and Sight Singing II (2)  
MUSC-106 History of African-American Music (3)  
MUSC-107-Jazz History (3)  
MUSC-130 Jazz Improvisation I (1)  
MUSC-130 Jazz Improvisation I (1)  
MUSC-200 Materials of Music III (3)  
MUSC-201 Materials of Music IV (3)  
MUSC-202 Ear Training and Sight Singing III (2)  
MUSC-203 Ear Training and Sight Singing IV (2)  
MUSC-230 Jazz Improvisation II (1)  
MUSC-230 Jazz Improvisation II (1)  
MUSC-270 Computer Applications to Music I (3)  
MUSC-271 Computer Applications to Music II (3)  
MUSC-330 Jazz Improvisation III (1)  
MUSC-330 Jazz Improvisation III (1)  
MUSC-331 Jazz Arranging I (2)  
MUSC-332 Jazz Arranging II (2)  
MUSC-374 Instrumental Conducting (3)  
MUSC-410 BM Seminar (2)  
MUSC-430 Jazz Improvisation IV (1)  
MUSC-430 Jazz Improvisation IV (1)  
MUSC-431 Jazz Compositional Techniques and Advanced Arranging (2)

Writing Intensive Course in the Major

#### **Electives (General & Music) (8)**

\*Specific Performing Ensemble Courses are required in certain programs and approved by department.

#### **Applied Major (16 Credits)**

Select one of the following three sequences:

Applied Major Keyboard:

MUSC 115, 115, 215, 215, 315, 315, 415, 415

Applied Major Voice:

MUSC 125, 125, 225, 225, 325, 325, 425, 425

Applied Major Instrument

MUSC 135, 135, 235, 235, 335, 335, 435, 435

#### **Applied Minor (4 credits)**

If Applied Major Voice or Applied Major Instrument is selected:

Applied Minor Keyboard: MUSC 116, 116, 216, 216

If Applied Major Keyboard is selected, select one of the following three sequences:

Applied Minor Keyboard: MUSC 116, 116, 216, 216

Applied Minor Voice: MUSC 126, 126, 226, 226

Applied Minor Instrument: MUSC 136, 136, 236, 236



## The Department of Visual and Performing Art

### BM Music Performance Program Requirements Concentration 3: Keyboard

#### Admission Statement

To be admitted to any of the degree programs, students must apply to the Music Program, audition in their performance area(s), and pass the Music program's placement examinations.

#### Comments for Majors in Bachelor of Music – Music Performance:

A grade point average of 2.0 is required for all music courses and 3.0 for all applied major courses. A recital in the junior and senior year is required. The student must complete the appropriate 400-level applied major course each fall and spring until the senior recital is performed and accepted.

For the Program of Study for each concentration, students should consult with their departmental advisor.

#### Required General Education Courses (37 Credits)

IGED 110 Foundation Writing I (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 140 Foundation Ethics (3)  
IGED 250 Discovery Technology (3)  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
or  
PHYS 115/ Physics of Music (Lec) (3)  
117 Physics of Music (Lab) (1)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1)  
IGED 392 Frontier Capstone II (2)

MUSC-372 Choral Conducting (3)  
or  
MUSC-374 Instrumental Conducting (3)  
MUSC-391 Form and Analysis II (2)  
MUSC-397 Counterpoint II (2)  
MUSC-410 BM Seminar (2)  
MUSC 415 Applied Major Keyboard (2)  
MUSC 415 Applied Major Keyboard (2)  
MUSC-418 Piano Literature (2)  
MUSC-419 Piano Pedagogy (2)  
Electives (General & Music) (5)  
Writing Intensive Course in the Major (3)

#### Required Courses (88 Credits)

MUSC Performing Ensemble Courses\* (8)  
MUSC-100 Materials of Music I (3)  
MUSC-101 Materials of Music II (3)  
MUSC-102 Ear Training and Sight Singing I (2)  
MUSC-103 Ear Training and Sight Singing II (2)  
MUSC-106 History of African-American Music (3)  
MUSC 115 Applied Major Keyboard (2)  
MUSC 115 Applied Major Keyboard (2)  
MUSC-119 Piano Sight-reading (1)  
MUSC-200 Materials of Music III (3)  
MUSC-201 Materials of Music IV (3)  
MUSC-202 Ear Training and Sight Singing III (2)  
MUSC-203 Ear Training and Sight Singing IV (2)  
MUSC 215 Applied Major Keyboard (2)  
MUSC 215 Applied Major Keyboard (2)  
MUSC-270 Computer Applications to Music I (3)  
MUSC-290 Keyboard Harmony I (1)  
MUSC-291 Keyboard Harmony II (1)  
MUSC-300 History of Western Music I (3)  
MUSC-301 History of Western Music II (3)  
MUSC 315 Applied Major Keyboard (2)  
MUSC 315 Applied Major Keyboard (2)  
MUSC-318 Ensemble Accompanying (2)  
MUSC-307 Vocal Arranging (2)  
or  
MUSC-392 Orchestration I (2)

#### Applied Minor (4 credits)

Select one of the following three sequences:  
Applied Minor Keyboard: MUSC 116, 116, 216, 216  
Applied Minor Voice: MUSC 126, 126, 226, 226  
Applied Minor Instrument: MUSC 136, 136, 236, 236



## The Department of Visual and Performing Art

### BM Music Performance Program Requirements Concentration 4: Instrumental Music

#### Admission Statement

To be admitted to any of the degree programs, students must apply to the Music Program, audition in their performance area(s), and pass the Music program's placement examinations.

#### Comments for Majors in Bachelor of Music – Music Performance:

A grade point average of 2.0 is required for all music courses and 3.0 for all applied major courses. A recital in the junior and senior year is required. The student must complete the appropriate 400-level applied major course each fall and spring until the senior recital is performed and accepted.

For the Program of Study for each concentration, students should consult with their departmental advisor

MUSC 397 Counterpoint II (2)

#### Required General Education Courses (37 Credits)

IGED 110 Foundation Writing I (3)

IGED 120 Foundation Quantitative Reasoning (3)

IGED 130 Foundation Oral Communications (3)

IGED 111 Foundation Writing II (3)

IGED 220 Discovery Quantitative Reasoning (3)

IGED 140 Foundation Ethics (3)

IGED 250 Discovery Technology (3)

IGED 210 Discovery Writing (3)

IGED 260 Discovery Science + Lab (4)

or

PHYS 115/ Physics of Music (Lec) (3)

117 Physics of Music (Lab) (1)

IGED 270 Discovery Diversity (3)

IGED 280 Discovery Civics (3)

IGED 391 Frontier Capstone I (1)

IGED 392 Frontier Capstone II (2)

#### Required Courses (88 credits)

MUSC Performing Ensemble Courses\* (8)

MUSC 087 Chamber Ensemble (1)

MUSC 087 Chamber Ensemble (1)

MUSC 100 Materials of Music I (3)

MUSC 101 Materials of Music II (3)

MUSC 102 Ear Training and Sight Singing I (2)

MUSC 103 Ear Training and Sight Singing II (2)

MUSC 106 History of African-American Music (3)

MUSC 116 Applied Minor Keyboard (1)

MUSC 116 Applied Minor Keyboard (1)

MUSC 135 Applied Major Instrument (2)

MUSC 135 Applied Major Instrument (2)

MUSC 200 Materials of Music III (3)

MUSC 201 Materials of Music IV (3)

MUSC-202 Ear Training and Sight Singing III (2)

MUSC 203 Ear Training and Sight Singing IV (2)

MUSC 216 Applied Minor Keyboard (1)

MUSC 216 Applied Minor Keyboard (1)

MUSC 235 Applied Major Instrument (2)

MUSC 235 Applied Major Instrument (2)

MUSC 270 Computer Applications to Music I (3)

MUSC 300 History of Western Music I (3)

MUSC 301 History of Western Music II (3)

MUSC 335 Applied Major Instrument (2)

MUSC 335 Applied Major Instrument (2)

MUSC 391 Form and Analysis II (2)

MUSC 392 Orchestration I (2)

MUSC 374 Instrumental Conducting (3)

MUSC 406 Symphonic Literature (2)

MUSC 410 BM Seminar (2)

MUSC 435 Applied Major Instrument (2)

MUSC 435 Applied Major Instrument (2)

MUSC 438 Applied Literature (2)

MUSC 450 String Pedagogy I (String Majors Only) (2)

MUSC 451 String Pedagogy II (String Majors Only) (2)

Writing Intensive Course in the Major (3)

Electives (String Majors) (4)

(General & Music)

Electives (Non-String Majors) (8)

(General & Music)





## The Department of Visual and Performing Art

### BM Music Performance Program Requirement Concentration 5: Voice

#### Admission Statement

To be admitted to any of the degree programs, students must apply to the Music Program, audition in their performance area(s), and pass the Music program's placement examinations.

#### Comments for Majors in Bachelor of Music – Music Performance:

A grade point average of 2.0 is required for all music courses and 3.0 for all applied major courses. A recital in the junior and senior year is required. The student must complete the appropriate 400-level applied major course each fall and spring until the senior recital is performed and accepted. For the Program of Study for each concentration, students should consult with their departmental advisor

#### Required General Education Courses (37 Credits)

IGED 110 Foundation Writing I (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 140 Foundation Ethics (3)  
IGED 250 Discovery Technology (3)  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
or  
PHYS 115/ Physics of Music (Lec) (3)  
117 Physics of Music (Lab) (1)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1)  
IGED 392 Frontier Capstone II (2)

MUSC 410 BM Seminar (2)  
MUSC 425 Applied Major Voice (2)

MUSC 425 Applied Major Voice (2)  
MUSC 460 Vocal Pedagogy I (1)  
MUSC 461 Vocal Pedagogy II (1)  
Writing Intensive Course in the Major (3)

Electives (General & Music) (2)

#### Required Ancillary Courses (6 credits)

ITAL 114 Italian Diction for Voice Major (2)  
FREN 114 French Diction for Voice Major (2)  
GRMN 114 German Diction for Voice Major (2)

#### Required Courses (82 credits)

MUSC Performing Ensemble Courses\* (8)  
MUSC 100 Materials of Music I (3)  
MUSC 101 Materials of Music II (3)  
MUSC 102 Ear Training and Sight Singing I (2)  
MUSC 103 Ear Training and Sight Singing II (2)  
MUSC 106 History of African-American Music (3)  
MUSC 116 Applied Minor Keyboard (1)  
MUSC 116 Applied Minor Keyboard (1)  
MUSC 125 Applied Major Voice (2)  
MUSC 125 Applied Major Voice (2)  
MUSC 200 Materials of Music III (3)  
MUSC 201 Materials of Music IV (3)  
MUSC 202 Ear Training and Sight Singing III (2)  
MUSC 203 Ear Training and Sight Singing IV (2)  
MUSC 216 Applied Minor Keyboard (1)  
MUSC 216 Applied Minor Keyboard (1)  
MUSC 225 Applied Major Voice (2)  
MUSC 225 Applied Major Voice (2)  
MUSC 260 German Vocal Literature (2)  
MUSC 270 Computer Applications to Music I (3)  
MUSC 300 History of Western Music I (3)  
MUSC 301 History of Western Music II (3)  
MUSC 325 Applied Major Voice (2)  
MUSC 325 Applied Major Voice (2)  
MUSC 360 French Vocal Literature (2)  
MUSC 307 Vocal Arranging (2)  
MUSC 361 Opera Workshop (1)  
MUSC 361 Opera Workshop (1)  
MUSC 372 Choral Conducting (3)  
MUSC 391 Form and Analysis II (2)



## **Division of Science and Mathematics**

### **Department of Biology, Chemistry and Physics**

☎202.274.7401

The Department has the philosophy of providing undergraduate research experience to all of its majors, enabling them to enroll in competitive advanced degree programs and specialized career pathways. Additionally, the Department provides opportunities for non-biology majors to take courses in the biological, chemical and physical sciences that will provide them with a broad undergraduate experience.

Biology, Chemistry and Physics are unrestricted majors, and any student eligible for admission to the University is eligible to declare one of these majors.

#### **Department Offerings**

##### **Bachelor Degrees:**

Bachelor of Science in Biology

Bachelor of Science in Chemistry

BSC concentration offerings:

General Chemistry

General Chemistry with American Chemical Society Certification (ACS).

Bachelor of Science in Physics

##### **Embedded Certificates:**

Bachelor of Science in Chemistry with the ACS : American Chemical Society for the

##### **Graduate Degree:**

Master of Science in Cancer Biology, Prevention, and Control

##### **Degree Programs**

The Department of Biology, Chemistry and Physics contains three programs and four academic degrees: B.S.in Biology, B.S. in Chemistry, B.S. in Physics and M.S. in Cancer Biology, Prevention, and Control. These degrees are designed to enhance scientific knowledge and career potential for individuals preparing to become biologists, chemists, physicist, researchers, and health professionals. The Department offers courses in biology, chemistry, microbiology, organic chemistry, botany, quantitative analysis, mechanics and other advanced areas of biology, chemistry and physics.

All current and prospective graduate students are encouraged to visit or call the Academic Department for curricular information and advising assistance.

##### **Honor Societies and Student Organizations**

- Beta Kappa Chi Scientific Honor Society
- National Institute of Science
- University of the District of Columbia Biology Club
- University of the District of Columbia Chemistry Club
- University of the District of Columbia Physics Club

##### **Accreditation and Associations**

- The Chemistry Program at the University is accredited by the American Chemical Society (ACS).

#### **Department Policy Changes**

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

Biology, Chemistry and Physics are unrestricted majors, and any student eligible for admission to the University is eligible to declare one of these majors.

#### **GPA Statement**

Students must earn a minimum of "C" in major courses for these courses to be accepted towards completion of the degree.

#### **Residency Statement**

Of the 120 credits required, 30 must be taken in residence at UDC.



## Department of Biology, Chemistry and Physics

### Bachelor of Science in Biology

#### Credit Statement:

The BS program in Biology requires completing a total of 120 credit hours of college-level courses in order to graduate.

#### Admission Statement:

Biology, Chemistry and Physics are unrestricted majors, and any student eligible for admission to the University is eligible to declare one of these majors.

#### GPA Statement:

Students must earn a minimum of "C" in major courses for the courses to be accepted towards completion of the degree.

#### Residency Statement:

Of the 120 credits required, 30 must be taken in residence at UDC.

#### Course Requirements

##### **General Education Requirements (37 credits)**

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 140 Foundation of Ethics (3)  
IGED 210 Discovery Writing (3)  
IGED 250 Discovery Technology (3)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1)  
IGED 392 Frontier Capstone II (2)  
ORIN 101 Freshman Orientation (1)  
MATH 113 Pre-Calculus with Trigonometry I (Satisfies IGED 120) (3)  
MATH 114 Pre-Calculus with Trigonometry II (Satisfies IGED 220)(3)  
BIOL 101 Biological Sciences I Lecture (Satisfies IGED 260) (3)  
BIOL 103 Biological Sciences I Lab (Lecture + Lab) (1)

#### **Program Core Requirements**

BIOL 101 Biological Sciences I Lecture (Satisfies IGED 260) (3)  
BIOL 103 Biological Sciences Laboratory (1)  
BIOL 102 Biological Sciences 2 Lecture (3)  
BIOL 104 Biological Sciences Laboratory (1)  
BIOL 225 Invertebrate Zoology Lecture (3)  
BIOL 224 Invertebrate Zoology Laboratory (1)  
BIOL 235 Botany Lecture (3)  
BIOL 234 Botany Laboratory (1)  
BIOL 241 General Microbiology Lecture (3)  
BIOL 240 General Microbiology Laboratory (1)  
BIOL 361 General Genetics Lecture (3)  
BIOL 360 General Genetics Laboratory (1)  
BIOL 331 Cell Biology Lecture (3)  
BIOL 330 Cell Biology Laboratory (1)  
BIOL 493 Senior Seminar (2)  
BIOElective 300-level or above (4)  
BIOElective 300-level or above (4)  
BIOElective 300-level or above (4)  
BIOElective 300-level or above (4)  
CHEM 111 General Chemistry 1 Lecture (3)  
CHEM 113 General Chemistry 1 Laboratory (1)  
CHEM 112 General Chemistry 2 Lecture (3)  
CHEM 114 General Chemistry 2 Laboratory (1)  
CHEM 231 Organic Chemistry 1 Lecture (3)  
CHEM 233 Experimental Organic Chemistry (2)  
CHEM 232 Organic Chemistry 2 Lecture (3)  
CHEM 234 Experimental Organic Chemistry (2)  
CHEM 461 Biochemistry 1 Lecture (3)  
CHEM 463 Biochemistry 1 Laboratory (2)  
MATH 113 Pre-calculus with Trigonometry 1 (3)  
MATH 114 Pre-calculus with Trigonometry 2 (3)  
MATH 215 Calculus for Business, Social, and Life Sciences (4)  
PHYS 101 Introduction to College Physics Lecture (3)  
PHYS 103 Introduction to College Physics 1 Laboratory  
PHYS 102 Introduction to College Physics 2 (3)  
PHYS 104 Introduction to College Physics 2 Laboratory (1)  
PHIL 105 Introduction to Logic (3)  
Writing Intensive Course (Consult with your Faculty Advisor) (3)



## Department of Biology, Chemistry and Physics

### Bachelor of Science in Biology

#### *Model Plan of Study*

The program outline illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Year 1: Semester 1 / Total Credits 15		
IGED 110	Foundation Writing I	3
MATH 113	Pre-calculus and Trigonometry I	3
BIOL 101	Biological Sciences 1 Lecture	3
BIOL 103	Biological Sciences 1 Laboratory	1
CHEM 111	General Chemistry 1 Lecture	3
CHEM 113	General Chemistry 1 Laboratory	1
ORTN 101	Freshman Orientation	1
Year 1: Semester 2 / Total Credits 15		
IGED 111	Foundation Writing II	3
IGED 140	Foundation in Ethics and Values	3
MATH 114	Pre-calculus with Trigonometry 2	3
BIOL 102	Biological Sciences 2 Lecture	3
BIOL 104	Biological Sciences Laboratory	1
CHEM 112	General Chemistry 2 Lecture	3
CHEM 114	General Chemistry 2 Laboratory	1
Year 2: Semester 3 / Total Credits 16		
IGED 210	Discovery Writing in the Arts and Sciences	3
MATH 215	Calculus for Business, Social, and Life Sciences	4
BIOL 225	Invertebrate Zoology Lecture	3
BIOL 224	Invertebrate Zoology Laboratory	1
CHEM 231	Organic Chemistry 1 Lecture	3
CHEM 233	Experimental Organic Chemistry	2
Year 2: Semester 4 / Total Credits 15		
IGED 250	Discovery Technology	3
IGED 130	Foundations of Oral Communications	3
BIOL 235	Botany Lecture	3
BIOL 234	Botany Laboratory	1
CHEM 232	Organic Chemistry 2	3
CHEM 234	Experimental Organic Chemistry 2	2
		Total 15
Year 3: Semester 5 / Total Credits 15		
IGED 270	Discovery Civics	3
BIOL 241	General Microbiology Lecture	3
BIOL 240	General Microbiology Laboratory	1
BIOL 331	Cell Biology Lecture	3
BIOL 330	Cell Biology Laboratory	1
PHYS 101	Introduction to College Physics 1 Lecture	3
PHYS 103	Introduction to College Physics Laboratory	1
Year 3: Semester 6 / Total Credits 16		
BIOL 361	General Microbiology Lecture	3
BIOL 360	General Microbiology Laboratory	1
BIOL	Biology Elective	4
BIOL	Biology Elective	4
PHYS 102	Introduction to College Physics 2 Lecture	3
PHYS 104	Introduction to College Physics 2 Laboratory	1
Year 4: Semester 7 / Total Credits 15		
IGED 391	Frontier Capstone I	3
IGED 280	Discovery Diversity	3
BIOL	Elective	4
CHEM 462	Biochemistry Lecture	3
CHEM 463	Biochemistry Laboratory	2
Year 4: Semester 8 / Total Credits 12		
IGED 392	Frontier Capstone II	3
BIOL	Elective	4
BIOL 493	Senior Seminar	2
PHIL 105	Introduction to Logic	3



## **Department of Biology, Chemistry and Physics**

### **Master of Science Degree in Cancer Biology Prevention and Control**

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The Department of Biology, Chemistry and Physics, in partnership with the Lombardi Comprehensive Cancer Center at Georgetown University Medical Center, offers a Master's Degree in Cancer Biology Prevention and Control. This intense MS program focuses on the causes and treatments of cancer. The goal of the Master's Degree program is to educate students as master level cancer researchers who are capable of conducting research in cancer biology, prevention, and control or to further advance their education by pursuing doctoral studies. The graduates of this program will be the individuals best suited for translating basic science knowledge into cancer prevention and control practices. The Program has as its philosophy "the best Cancer Prevention and Control researchers are those with a sound understanding of cancer biology."

#### **Admission Requirements**

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Students must meet the following criteria:

1. Hold a Bachelor's Degree from an accredited institution in science, science-related discipline, or psychology;
2. Have a minimum grade point average of 3.00;
3. Submit three letters of recommendation from individuals having knowledge of the applicant's potential to complete the MS program.

Write an essay explaining why the applicant wants to pursue a MS degree in Cancer Biology, Prevention, and Control.



## Department of Biology, Chemistry and Physics

### Bachelor of Science in Chemistry

#### Credit Statement:

The BS program in Chemistry requires completing a total of 120 credit hours of college-level courses in order to graduate.

#### Admission Statement:

Biology, Chemistry and Physics are unrestricted majors, and any student eligible for admission to the University is eligible to declare one of these majors.

#### GPA Statement:

Students must earn a minimum of "C" in major courses for the courses to be accepted towards completion of the degree.

#### Residency Statement:

Of the 120 credits required, 30 must be taken in residence at UDC.

#### Course Requirements

##### General Education Requirements (37 credits)

IGED 110 Foundation Writing I  
IGED 111 Foundation Writing II  
IGED 130 Foundation Oral Communications  
IGED 140 Foundation of Ethics  
IGED 210 Discovery Writing  
IGED 250 Discovery Technology  
IGED 270 Discovery Diversity  
IGED 280 Discovery Civics  
ORIN 101 Freshman Orientation  
MATH 151 Calculus I Lecture (Satisfies IGED 120)  
MATH 155 Calculus I Lab  
MATH 152 Calculus II Lecture (Satisfies IGED 220)  
MATH 156 Calculus II Lecture  
CHEM 111 General Chemistry I Lecture (Satisfies IGED 260)  
CHEM 113 General Chemistry I Lab

##### Program Core Requirements for General Chemistry Option

CHEM 111 General Chemistry 1 Lecture (3)  
CHEM 113 General Chemistry 1 Laboratory (1)  
CHEM 112 General Chemistry 2 Lecture (3)  
CHEM 114 General Chemistry 2 Laboratory (1)  
CHEM 231 Organic Chemistry 1 Lecture (3)  
CHEM 233 Organic Chemistry I Laboratory (2)  
CHEM 232 Organic Chemistry 2 Lecture (3)  
CHEM 234 Organic Chemistry II Lab (2)  
CHEM 225 Descriptive Inorganic Chemistry (2)  
CHEM 351 Physical Chemistry Lecture (3)  
CHEM 353 Physical Chemistry Laboratory (2)  
CHEM 355 Physical Chemistry Calculations 1 (1)  
CHEM 245 Quantitative Analysis Lecture (3)  
CHEM 247 Quantitative Analysis Laboratory (2)  
CHEM 352 Physical Chemistry 2 Lecture (3)  
CHEM 354 Physical Chemistry 2 Laboratory (2)  
CHEM 356 Physical Chemistry Calculations 2 (1)  
CHEM 445 Instrumental Methods of Analysis (3)  
CHEM 447 Instrumental Analysis Laboratory (2)  
CHEM 461 Biochemistry 1 Lecture (3)  
CHEM 463 Biochemistry 1 Lab (2)  
CHEM 411 Senior Research 1 (2)

CHEM 425 Advanced Inorganic Chemistry (3)  
CHEM 426 Advanced Inorganic Chemistry Laboratory (2)  
CHEM 412 Senior Research 2 (2)  
MATH 151 Calculus 1 Lecture (3)  
MATH 155 Calculus Laboratory (1)  
MATH 152 Calculus 2 Lecture (3)  
MATH 156 Calculus 2 Laboratory (1)  
MATH 253 Calculus 3 Lecture (3)  
MATH 255 Calculus 3 Laboratory (1)  
BIOL 101 Biological Sciences 1 Lecture (3)  
BIOL 103 Biological Sciences 1 Laboratory (1)  
BIOL 102 Biological Sciences 2 Lecture (3)  
BIOL 104 Biological Sciences 2 Laboratory (1)  
PHYS 201 University Physics 1 Lecture (3)  
PHYS 205 University Physics 1 Laboratory (1)  
PHYS 202 University Physics 2 Lecture (3)  
PHYS 206 University Physics 2 Laboratory (1)  
Writing Intensive Course (*Consult with your Faculty Advisor*)

##### Electives (8 credits)\*

\*12 hours of electives approved by the department

##### Program Core Requirements for General Chemistry Option with ACS Certification

CHEM 111 General Chemistry 1 Lecture (3)  
CHEM 113 General Chemistry 1 Laboratory (1)  
CHEM 112 General Chemistry 2 Lecture (3)  
CHEM 114 General Chemistry 2 Laboratory (1)  
CHEM 231 Organic Chemistry 1 Lecture (3)  
CHEM 233 Organic Chemistry I Laboratory (2)  
CHEM 232 Organic Chemistry 2 Lecture (3)  
CHEM 234 Organic Chemistry II Lab (2)  
CHEM 225 Descriptive Inorganic Chemistry (2)  
CHEM 351 Physical Chemistry Lecture (3)  
CHEM 353 Physical Chemistry Laboratory (2)  
CHEM 355 Physical Chemistry Calculations 1 (1)  
CHEM 245 Quantitative Analysis Lecture (3)  
CHEM 247 Quantitative Analysis Laboratory (2)  
CHEM 352 Physical Chemistry 2 Lecture (3)  
CHEM 354 Physical Chemistry 2 Laboratory (2)  
CHEM 356 Physical Chemistry Calculations 2 (1)  
CHEM 445 Instrumental Methods of Analysis (3)  
CHEM 447 Instrumental Analysis Laboratory (2)  
MATH 151 Calculus 1 Lecture (3)  
MATH 155 Calculus Laboratory (1)  
MATH 152 Calculus 2 Lecture (3)  
MATH 156 Calculus 2 Laboratory (1)  
MATH 253 Calculus 3 Lecture (3)  
MATH 255 Calculus 3 Laboratory (1)  
BIOL 101 Biological Sciences 1 Lecture (3)  
BIOL 103 Biological Sciences 1 Laboratory (1)  
BIOL 102 Biological Sciences 2 Lecture (3)  
BIOL 104 Biological Sciences 2 Laboratory (1)  
PHYS 201 University Physics 1 Lecture (3)  
PHYS 205 University Physics 1 Laboratory (1)  
PHYS 202 University Physics 2 Lecture (3)  
PHYS 206 University Physics 2 Laboratory (1)  
Writing Intensive Course (*Consult with your Faculty Advisor*) (3)

##### Electives (9 credits)\*

\*9 hours of electives approved by the department



## Department of Biology, Chemistry and Physics

### Bachelor of Science in Chemistry

#### *Model Plan of Study*

This program outline illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Year 1: Semester 1 / Total Credits 16		
IGED 110	Foundation Writing I	3
MATH 151	Calculus 1 Lecture	3
MATH 155	Calculus1 Laboratory	1
BIOL 101	Biological Sciences 1 Lecture	3
BIOL 103	Biological Sciences 1 Laboratory	1
CHEM 111	General Chemistry 1 Lecture	3
CHEM 113	General Chemistry 1 Laboratory	1
ORTN 101	Freshman Orientation	1
Year 1: Semester 2 / Total Credits 15		
IGED 111	Foundation Writing II	3
MATH 152	Calculus 2 Lecture	3
MATH 156	Calculus 2 Laboratory	1
BIOL 102	Biological Sciences 2 Lecture	3
BIOL 104	Biological Sciences Laboratory	1
CHEM 112	General Chemistry 2 Lecture	3
CHEM 114	General Chemistry 2 Laboratory	1
Year 2: Semester 3 / Total Credits 15		
IGED 210	Discovery Writing in the Arts and Sciences	3
IGED 130	Foundations in Oral Communication	3
CHEM 231	Organic Chemistry 1 Lecture	3
CHEM 233	Experimental Organic Chemistry	2
PHYS 201	University Physics 1 Lecture	3
PHYS 205	University Physics 1 Laboratory	1
Year 2: Semester 4 / Total Credits 14		
IGED 140	Foundations in Ethics and Values	3
CHEM 232	Organic Chemistry 2	3
CHEM 234	Experimental Organic Chemistry 2	2
CHEM 225	Descriptive Inorganic Chemistry	2
PHYS 202	University Physics 2 Lecture	3
PHYS 206	University Physics 2 Laboratory	1
Year 3: Semester 5 / Total Credits 15		
IGED 270	Discovery Civics	3
IGED 280	Discovery Diversity	3
CHEM 351	Physical Chemistry 1 Lecture	3
CHEM 353	Physical Chemistry 1 Laboratory	2
CHEM 355	Physical Chemistry Calculations 1	1
CHEM 245	Quantitative Analysis Lecture	3
CHEM 247	Quantitative Analysis Laboratory	2
Year 3: Semester 6 / Total Credits 16		
CHEM 352	Physical Chemistry 2 Lecture	
CHEM 354	Physical Chemistry 2 Laboratory	
CHEM 356	Physical Chemistry Calculations 2	
CHEM 445	Instrumental Methods of Analysis	
CHEM 447	Instrumental Analysis Laboratory	
MATH 253	Calculus 3 Lecture	
MATH 255	Calculus 3 Laboratory	
Year 4: Semester 7 / Total Credits 16		
IGED 391	Frontier Capstone 1	3
IGED 250	Discovery Technology	3
CHEM 462	Biochemistry Lecture	3
CHEM 463	Biochemistry Laboratory	2
CHEM 411	Senior Research 1	2
	Approved Elective	3
Year 4: Semester 8 / Total Credits 12		
CHEM 425	Advanced Inorganic Chemistry Lecture	3
CHEM 426	Advanced Inorganic Chemistry Laboratory	1
CHEM 412	Senior Research 2	2
	Approved Elective	3
	Approved Elective	3



## Department of Biology, Chemistry and Physics

### Bachelor of Science in Physics

#### Credit Statement:

The BS program in Physics requires completing a total of 120 credit hours in order to graduate.

#### Admission Statement:

Biology, Chemistry and Physics are unrestricted majors, and any student eligible for admission to the University is eligible to declare one of these majors.

#### GPA Statement:

Students must earn a minimum of "C" in major courses for these to be accepted towards completion of the degree.

#### Course Requirements

##### General Education Requirements (37 Credits)

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 140 Foundation of Ethics (3)  
IGED 210 Discovery Writing (3)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
ORIN 101 Freshman Orientation (1)  
MATH 151 Calculus I Lecture (Satisfies IGED 120) (3)  
MATH 155 Calculus I Lab (1)  
MATH 152 Calculus II Lecture (Satisfies IGED 220) (3)  
MATH 156 Calculus II Lab (1)  
PHYS 201 University Physics I Lecture (3)  
PHYS 205 University Physics I Lab (1)  
APCT 231 Intro to Computer Science I Lecture (3)  
APCT 233 Intro to Computer Science I Lab (1)

##### Program Core Requirements

PHYS 201 University Physics I Lecture (3)  
PHYS 205 University Physics I Laboratory (1)  
PHYS 202 University Physics II Lecture (3)  
PHYS 206 University Physics II Laboratory (1)  
PHYS 203 University Physics III Lecture (3)  
PHYS 207 University Physics III Lab (1)  
PHYS 211 Laboratory Techniques I (1)  
PHYS 212 Laboratory Techniques II (1)  
PHYS 311 Mechanics I (3)  
PHYS 312 Mechanics II (3)  
PHYS 341 Advanced Laboratory I (1)  
PHYS 342 Advanced Laboratory II (1)  
PHYS 345 Optics (3)  
PHYS 346 Thermodynamics (3)  
PHYS 451 Senior Project I (2)  
PHYS 452 Senior Project II (2)  
PHYS 461 Electricity and Magnetism I (3)  
PHYS 462 Electricity and Magnetism II (3)  
PHYS 471 Quantum Mechanics I (3)  
PHYS 472 Quantum Mechanics II (3)  
PHYS 499 General Exam (1)  
PHYS Physics Electives (9)  
MATH 151 Calculus I Lecture (3)  
MATH 155 Calculus I Laboratory (1)  
MATH 152 Calculus II Lecture (3)  
MATH 156 Calculus II Laboratory (1)  
MATH 253 Calculus III Lecture (3)  
MATH 255 Calculus III Laboratory (1)  
CHEM 111 General Chemistry I Lecture (3)  
CHEM 113 General Chemistry I Laboratory (1)  
CHEM 112 General Chemistry II Lecture (3)  
CHEM 114 General Chemistry II Laboratory (1)  
MATH 225 Linear Algebra (3)  
MATH 260 Differential Equation (3)  
APCT 231 Computer Science I (3)  
APCT 233 Computer Science I Lab (1)  
APCT 232 Computer Science II (3)  
APCT 234 Computer Science II Lab (1)

##### Electives (3 credits\*)

Writing Intensive Course (Consult with your Faculty Advisor) (3)

\*3 hours of General Electives approved by the department.





## Department of Biology, Chemistry and Physics

### Bachelor of Science in Physics

#### *Model Plan of Study*

This program outline illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

<b>Year 1: Semester 1 / Total Credits 14</b>		
IGED 110	Foundation Writing 1	3
MATH 114	Pre-Calculus with Trig I	3
ORTN 101	Freshman Orientation	1
IGED 130	Foundation Oral Communications	3
APCT 231	Computer Science I	3
APCT 233	Computer Science I Lab	1
<b>Year 1: Semester 2 / Total Credits 14</b>		
IGED 111	Foundation Writing II	3
MATH 151	Calculus I Lecture	3
MATH 155	Calculus I Laboratory	1
APCT 232	Computer Science II	3
APCT 234	Computer Science II Lab	1
IGED 140	Foundation in Ethics and Values	3
<b>Year 2: Semester 3 / Total Credits 16</b>		
PHYS 201	University Physics I Lecture	3
PHYS 205	University Physics I Laboratory	1
PHYS 211	Laboratory Techniques I	1
MATH 152	Calculus II Lecture	3
MATH 156	Calculus II Laboratory	1
CHEM 111	General Chemistry I Lecture	3
CHEM 113	General Chemistry I Laboratory	1
IGED 210	Discovery Writing in Arts and Sciences	3
<b>Year 2: Semester 4 / Total Credits 16</b>		
PHYS 202	University Physics II Lecture	3
PHYS 206	University Physics II Laboratory	1
PHYS 212	Laboratory Techniques II	1
MATH 253	Calculus III Lecture	3
MATH 255	Calculus III Laboratory	1
CHEM 112	General Chemistry II Lecture	3
CHEM 114	General Chemistry II Laboratory	1
IGED 270	Discovery Local/Global Diversity	3
<b>Year 3: Semester 5 / Total Credits 16</b>		
PHYS 331	Mechanics I	3
PHYS 346	Thermodynamics	3
PHYS 341	Advance Laboratory I	1
PHYS 203	University Physics III Lecture	3
MATH 225	Linear Algebra	3
IGED 280	Discovery of Service Civics Team Work	3
<b>Year 3: Semester 6 / Total Credits 14</b>		
PHYS 332	Mechanics II	3
PHYS 345	Optics	3
PHYS 342	Advance Laboratory II	1
MATH 260	Differential Equation	3
IGED 391	Frontier Capstone I	1
PHYS	Physics Elective	3
<b>Year 4: Semester 7 / Total Credits 16</b>		
PHYS 461	Electricity and Magnetism I	3
PHYS 471	Quantum Mechanics I	3
PHYS 451	Senior Project I	2
IGED 392	Frontier Capstone II	2
PHYS	Physics Electives	3
	General Electives	3
<b>Year 4: Semester 8 / Total Credits 13</b>		
PHYS 462	Electricity and Magnetism II	3
PHYS 472	Quantum Mechanics II	3
PHYS 452	Senior Project II	2
PHYS	Physics Electives	3
PHYS 499	General Exam	1



## Department of Mathematics and Statistics

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☎ (202) 274-6151

### **Departmental Mission**

The instructional mission of the Department of Mathematics and Statistics is threefold:

- 1) To prepare degree-seeking students in mathematics with the knowledge, skills, and attitudes to pursue a career in mathematics or a mathematically-related field, and then to pursue graduate study in a Master of Science Program to become secondary mathematics educators, statisticians, and mathematicians.
- 2) To provide instructional support to all UDC departments content for their majors, and
- 3) To provide a variety of mathematics course sequences that satisfy the University's general education requirement in mathematics.

In order to accomplish this mission, the department has established goals and objectives for undergraduate and graduate majors as well as students enrolled in math courses required for departmental degrees.

All new students, including students transferring less than 27 semester hours, will be placed in the appropriate mathematics courses pursuant to the Mathematics Department's assessment. Students should consult with their major departments to determine mathematics courses required in that discipline.

The Department also offers several levels of professional in-service courses to the Washington community. The primary objectives of every mathematics course are to develop students' mathematical skills and to inculcate good habits of rigorous and critical thinking. The Department emphasizes the application of technology to enhance learning. Our goal is to provide technology-driven learning in all of its courses.

To support instruction, the Department provides laboratories for students at all levels. For students in calculus or statistics courses, the Calculus Laboratory, located in Building 32, B Level, has 30 networked student stations providing Microsoft Office, DERIVE, Gyrographics, MINITAB, SAS, and SPSS. In addition to regularly scheduled class meetings in the laboratory, the Department provides 30 hours of supervised availability for student use, including person-to-person and computer-aided-tutoring for all college level mathematics and statistics courses through Differential Equations (and beyond as resources permit).

The Department offers the Bachelor of Science and Master of Science in Applied Statistics.

The Bachelor of Science degree program offers two options: Pure Mathematics and Statistics. Each program option prepares students for careers or graduate study in mathematics, statistics, or in a mathematics-related field. The smaller-size advanced mathematics classes enable faculty to give each student personal attention as needed.

### **DEPARTMENT OFFERINGS**

#### **Bachelor Degrees**

Bachelor of Science in Mathematics

Bachelor of Science in Mathematics concentration offerings:

Pure Mathematics  
Statistics

#### **Honor and Student Societies**

Honor Society: Pi Mu Epsilon

Club Student Group: Math Club

#### **Department Policy Changes**

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

#### **Admission Statement**

The mathematics major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the Mathematics Major.

#### **GPA Statement**

Students must earn a minimum grade of "C" in all required courses and in the Mathematics major program and each mathematics elective course.

#### **Residency Statement**

Of the 120 required credits, 30 must be taken in residence at UDC.



## Department of Mathematics and Statistics

### Bachelor of Science Mathematics Option I

#### Course Requirements

##### **General Education Requirements (37 credits)**

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 140 Foundation of Ethics (3)  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
ORIN 101 Freshman Orientation (1)  
MATH 151 Calculus I Lecture (*Satisfies IGED 120*) (3)  
MATH 155 Calculus I Lab (1)  
MATH 152 Calculus II Lecture (*Satisfies IGED 220*) (3)  
MATH 156 Calculus II Lab (1)  
APCT 231I Intro to Computer Science I Lecture (3)  
APCT 233 Intro to Computer Science I Lab (1)

##### **Program Core Requirements**

PHIL 105 Introduction to Logic (3)  
APCT 231 Introduction to Computer Science I (3)  
APCT 233 Introduction to Computer Science I Lab (1)  
MATH 151, 155 Calculus I, Calculus I Lab (4)  
MATH 152, 156 Calculus II, Calculus II Lab (4)  
MATH 225 Linear Algebra (3)  
MATH 253, 255 Calculus III, Calculus III Lab (4)  
MATH 176 Introduction to Mathematical Concepts (3)  
MATH 254 Differential Equation (3)  
or  
MATH 260 Differential Equation w/Linear Algebra (4)  
MATH 351 Advanced Calculus I (3)  
MATH 411 Abstract Algebra I (3)  
MATH 490 Seminar I (1)

##### **Program Requirements: Pure Mathematics**

MATH 461 Complex Analysis I (3)  
**At least one (1) of the following three courses**  
MATH 352 Advanced Calculus II (3)  
MATH 412 Abstract Algebra II (3)  
MATH 462 Complex Analysis II (3)

##### **Four Mathematics Electives must be chosen from the following list and must be approved by the Department of Mathematics:**

MATH 316 Number Theory (3)  
MATH 335 Classical Geometry\* (3)  
MATH 352 Advanced Calculus II (3)  
MATH 381 Probability and Statistics (3)  
MATH 382 Probability with Applications (3)  
MATH 385 Regression Analysis with Applications (3)  
MATH 409 History of Mathematics\* (3)  
MATH 412 Abstract Algebra II (3)  
MATH 425 Advanced Linear Algebra (3)  
MATH 431 Modern Geometry I\* (3)  
MATH 432 Modern Geometry II\* (3)  
MATH 435 Differential Geometry (3)  
MATH 445 Topology (3)  
MATH 451 Analysis I (3)  
MATH 452 Real Analysis II (3)  
MATH 462 Complex Analysis II (3)  
MATH 475 Mathematical Logic (3)  
MATH 480 Mathematical Statistics I (3)  
MATH 481 Mathematical Statistics II (3)  
MATH 482 Numerical Analysis I (3)  
MATH 483 Numerical Analysis II (3)  
MATH 485 Mathematical Modeling (3)  
MATH 495 Independent Study (3)  
MATH 499 Special Topics in Mathematics (3)  
\*At most, two of these courses may be chosen in the Pure Mathematics Option

##### **Program Requirements: Statistics**

MATH 381 Probability and Statistics (3)  
MATH 382 Probability with Application (3)  
MATH 385 Regression Analysis with Applications (3)  
MATH 386 Analysis of Variance with Applications (3)  
MATH 480 Mathematical Statistics I (3)  
MATH 481 Mathematical Statistics II (3)

##### **Requires 33 credits of general electives**



## Department of Mathematics and Statistics

### Bachelor of Science Mathematics Option I

#### Model Plan of Study

This program outline illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Year 1: Semester 1 / Total Credits 13		
IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 151	Calculus I	3
MATH 155	Calculus I Lab	1
APTC 231/233	Computer Science	2
APTC 233	Computer Science Lab	1
Year 1: Semester 2 / Total Credits 13		
IGED 111	Foundation Writing II	3
MATH 152	Calculus II	3
MATH 156	Calculus II Lab	1
MATH 225	Linear Algebra	3
	French	3
Year 2: Semester 3 / Total Credits 16		
IGED 140	Foundation Ethics	3
IGED 250	Discovery Technology	3
IGED 210	Discovery Writing	3
MATH 253	Calculus III	3
MATH 255	Calculus III Lab	1
	French	3
Year 2: Semester 4 / Total Credits 15		
IGED 260	Discovery Science + Lab	3
IGED 270	Discovery Diversity	3
MATH 260	Differential Equations*	3
MATH 176	Introduction to Math Concepts *	3
	Mathematics Elective	3
Year 3: Semester 5 / Total Credits 18		
IGED 280	Discovery Civics	3
MATH 351	Advanced Calculus I	3
	Mathematics Elective	3
	General Elective	3
	General Elective	3
	General Elective	3
Year 3: Semester 6 / Total Credits 15		
MATH	Mathematics Elective **	3
MATH	Mathematics Elective **	3
	General Electives	3
	General Elective	3
	General Electives	3
Year 4: Semester 7 / Total Credits 16		
IGED 391	Frontier Capstone I	1
MATH 411	Abstract Algebra I	3
MATH 461	Complex Analysis	3
	General Elective	3
	General Elective	3
	General Elective	3
Year 4: Semester 8 / Total Credits 14		
IGED 392	Frontier Capstone II	2
MATH 490	Senior Seminar	3
	Mathematics Elective	3
	Mathematics Elective	3
	General Elective	3

\*Mathematics majors may take either MATH 254 or MATH 352

\*\*At least one of the mathematics electives must be MATH 352, Advanced Calculus II, MATH 462, Complex Analysis II, or MATH 412, Abstract Algebra II



## Department of Mathematics and Statistics

### Bachelor of Science Mathematics Option II

#### Course Requirements

##### **General Education Requirements (37 credits)**

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 140 Foundation of Ethics (3)  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
ORIN 101 Freshman Orientation (1)  
MATH 151 Calculus I Lecture (*Satisfies IGED 120*) (3)  
MATH 155 Calculus I Lab (1)  
MATH 152 Calculus II Lecture (*Satisfies IGED 220*) (3)  
MATH 156 Calculus II Lab (1)  
APCT 231I Intro to Computer Science I Lecture (3)  
APCT 233 Intro to Computer Science I Lab (1)

#### **Program Core Requirements**

PHIL 105 Introduction to Logic (3)  
APCT 231 Introduction to Computer Science I (3)  
APCT 233 Introduction to Computer Science I Lab (1)  
MATH 151, 155 Calculus I, Calculus I Lab (4)  
MATH 152, 156 Calculus II, Calculus II Lab (4)  
MATH 225 Linear Algebra (3)  
MATH 253, 255 Calculus III, Calculus III Lab (4)  
MATH 176 Introduction to Mathematical Concepts (3)  
MATH 254 Differential Equation (3)  
or  
MATH 260 Differential Equation w/Linear Algebra (4)  
MATH 351 Advanced Calculus I (3)  
MATH 411 Abstract Algebra I (3)  
MATH 490 Seminar I (1)

#### **Program Requirements: Pure Mathematics**

MATH 461 Complex Analysis I (3)  
**At least one (1) of the following three courses**  
MATH 352 Advanced Calculus II (3)  
MATH 412 Abstract Algebra II (3)  
MATH 462 Complex Analysis II (3)

**Four Mathematics Electives must be chosen from the following list and must be approved by the Department of Mathematics:**

*\*At most, two of these courses may be chosen in the Pure Mathematics Option*

MATH 316 Number Theory (3)  
**MATH 335 Classical Geometry\* (3)**  
MATH 352 Advanced Calculus II (3)  
MATH 381 Probability and Statistics (3)  
MATH 382 Probability with Applications (3)  
MATH 385 Regression Analysis with Applications (3)  
**MATH 409 History of Mathematics\* (3)**  
MATH 412 Abstract Algebra II (3)  
MATH 425 Advanced Linear Algebra (3)  
**MATH 431 Modern Geometry I\* (3)**  
**MATH 432 Modern Geometry II\* (3)**  
MATH 435 Differential Geometry (3)  
MATH 445 Topology (3)  
MATH 451 Analysis I (3)  
MATH 452 Real Analysis II (3)  
MATH 462 Complex Analysis II (3)  
MATH 475 Mathematical Logic (3)  
MATH 480 Mathematical Statistics I (3)  
MATH 481 Mathematical Statistics II (3)  
MATH 482 Numerical Analysis I (3)  
MATH 483 Numerical Analysis II (3)  
MATH 485 Mathematical Modeling (3)  
MATH 495 Independent Study (3)  
MATH 499 Special Topics in Mathematics (3)

#### **Program Requirements: Statistics**

MATH 381 Probability and Statistics (3)  
MATH 382 Probability with Application (3)  
MATH 385 Regression Analysis with Applications (3)  
MATH 386 Analysis of Variance with Applications (3)  
MATH 480 Mathematical Statistics I (3)  
MATH 481 Mathematical Statistics II (3)

**Requires 33 credits of general electives**



## Department of Mathematics and Statistics

### Bachelor of Science Mathematics Option II

#### Model Plan of Study

The program outline illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 151	Calculus I	3
MATH 155	Calculus I Lab	1
APTC 231	Computer Science	2
APTC 233	Computer Science Lab	1
		Total 13
Year 1: Semester 2		
IGED 111	Foundation Writing II	3
MATH 152	Calculus II	3
MATH 156	Calculus II Lab	1
MATH 225	Linear Algebra	3
	French	3
		Total 13
Year 2: Semester 3		
IGED 140	Foundation Ethics	3
IGED 250	Discovery Technology	3
IGED 210	Discovery Writing	3
MATH 253	Calculus III	3
MATH 255	Calculus III Lab	1
	French	3
		Total 16
Year 2: Semester 4		
IGED 260	Discovery Science + Lab	3
IGED 270	Discovery Diversity	3
MATH 260	Differential Equations*	3
MATH 176	Introduction to Math Concepts *	3
	Mathematical Elective	3
		Total 15
Year 3: Semester 5		
IGED 280	Discovery Civics	3
MATH 351	Advanced Calculus I	3
MATH 381	Probability & Statistics	3
	General Elective	3
	General Elective	3
	General Elective	3
		Total 18
Year 3: Semester 6		
MATH 382	Probability with Applications	3
MATH 385	Regression Analysis	3
	General Elective	3
	General Elective	3
	General Elective	3
		Total 15
Year 4: Semester 7		
IGED 391	Frontier Capstone I	1
MATH 411	Abstract Algebra I	3
MATH 386	Analysis of Variance	3
MATH 583	Mathematical Statistics I	3
	General Elective	3
	General Elective	3
		Total 16
Year 4: Semester 8		
IGED 392	Frontier Capstone II	2
MATH 490	Senior Seminar	3
MATH 584	Mathematical Statistics II	3
	General Elective	3
	General Elective	3
		Total 14

\*Mathematics majors may take either MATH 254 or MATH 352

\*\*At least one of the mathematics electives must be MATH 352 and Advanced Calculus II.



## Department of Mathematics and Statistics

### Master of Science in Applied Statistics

☎ (202) 274-5771

The objectives of the Master of Science in Applied Statistics degree are threefold: (1) to equip individuals to enter positions as data analysts requiring them to design and execute statistical studies, and to evaluate existing studies; (2) to train individuals who can function as independent applied statistical consultants; and (3) to provide a foundation for further graduate study. The Master's program emphasizes applications, but provides sufficient theoretical content for successful candidates to pursue doctoral level study.

#### Degree Requirements

Candidates for the Master of Science in Applied Statistics must:

1. Satisfy all requirements set by the Graduate School;
2. Complete a minimum of 30 semester hours of approved graduate study;
3. Pass a written comprehensive examination covering the content of MATH: 574, 583, 584, 585, 586, and 650;
4. Complete an approved internship together with a related project;  
**or**  
write and defend an expository thesis under the direction of a permanent member of the Department of Mathematics and Statistics; and
5. Complete the Graduate Writing Proficiency Exam.

Demonstrated proficiency in writing is required of all graduate students. Students must take the GRE Analytical Writing Subtest as a requirement for admission. The minimum criterion score is 4. Students failing to meet the criterion must enroll in and pass (with a grade of "B" or better) the English Graduate Writing Proficiency course ENGL 290 in the first semester of admission.

The following courses are required: (Alternate courses may be substituted with the written consent of the Program Director.)

#### Admissions Requirements

In addition to the admissions requirements of the Graduate School, applicants for the program leading to the Master of Science in Applied Statistics must have completed the following courses or their equivalents:

Calculus I and II

Linear Algebra

A UDC course in computer science of APCT 231 or above

#### Graduation Requirements

Total credit hours of graduate-level courses required for graduation:  
36

#### MS Applied Statistics

- Complete a minimum of 30 semester hours of approved graduate study
- Pass a written comprehensive examination covering the content of course: MATH 574, 583, 584, 585, 586, and 650
- Complete an approved internship together with a related project **or** write and defend an expository thesis under the direction of a permanent member of the Department of Mathematics and Statistics
- Complete the Graduate Writing Proficiency Exam.
- Demonstrated proficiency in writing is required of all graduate students.
- Students must take the GRE Analytical Writing Subtest as a requirement for admission. The criterion score is 4. Students failing to meet the criterion must enroll in and pass (with a grade of "B" or better) English Graduate Writing Proficiency course ENGL 290 in the first semester of admission.
- 
- MATH 574 Probability Theory
- MATH 583 Mathematical Statistics I
- MATH 599 Special Topics: Research Methods and Data Mining
- MATH 584 Mathematical Statistics II
- MATH 599 Special Topics: Data Analysis with SAS
- MATH 585 Statistical Modeling
- MATH 586 Design of Experiments and Analysis of Variance
- MATH 650 Statistical Consulting
- MATH 655 Approved Internship with related project **or**
- MATH 660 Thesis

Policies of the Department and Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of curriculum. These changes may become effective prior to publication of the next catalog.



## Division of Urban Affairs, Behavioral, and Social Sciences

### Department of Criminal Justice, Sociology and Social Work

☎ 202.274.5687

#### Department Offerings

Bachelor Degrees:

Bachelor of Arts in Criminal Justice

Bachelor of Arts in Sociology

Bachelor of Arts in Social Work

Graduate Degree:

M.S. in Homeland Security (MSHS)

#### Department Mission

The department's mission is to provide educational experiences that are academically challenging, innovative, and collaborative in order to produce graduates who are thoughtful scholars and professionals, as well as citizens who are committed to social justice and social change. The collective disciplines of criminal justice, sociology, and social work comprise this department that is focused on preparing students for employment or graduate study. Each program provides opportunities to study theories, research methods, and professional practices to address how societies, institutions, organizations, and cultures impact the lives of women, men, youth, and families in urban settings. The programs create learning experiences in both the classroom and field, that emphasize empathy, cultural sensitivity, ethical behavior, and evidence-based practices as the cornerstones of professional commitments to equity and social justice. Each curriculum offers opportunities for interdisciplinary learning, team work, civic commitments, and the engagement of technology to enhance the quality of students' academic performances and ability to compete for graduate study or employment.

#### Department Description

Criminal Justice, Sociology, and Social Work comprise a multi-disciplinary department that offers a Bachelor of Arts in the Administration of Justice, a Bachelor of Arts in Sociology, and a Bachelor of Arts in Social Work. A Master's in Arts in Homeland Security is offered by the Criminal Justice Program that also houses the Institute for Public Safety and Justice which provides research, training, and community outreach activities to promote public safety in the District of Columbia and nationally.

#### Accreditation and Associations:

The undergraduate Social Work Program is accredited by the Council on Social Work Education.

The Criminal Justice discipline has a variety of associations and professional organizations such as the Academy of Criminal Justice Sciences, the American Correctional Association, The National Association of Blacks in Criminal Justice and the DC chapter of Blacks in Criminal Justice.

The Sociology discipline has a variety of professional organizations such as the Association of Black sociologists, American Sociological Association, and the American Association of Social Scientists.

The Social Work program is involved in the National Association of Social Workers, National Association of Black Social Workers, DC Metro Chapter of the National Association of Social Workers, Council on Social Work Education and the Phi Alpha National Social Work Honor society.

#### Honor Societies and Student Organizations

Honor Society:

Nu Kappa Chapter of Phi Alpha Social Work Honor Society

#### Current Club Student Group:

UDC Social Work Association

UDC Criminal Justice Association

#### Department Policy Changes

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

#### Bachelor of Arts in Criminal Justice (BACJ), Bachelor of Arts in Sociology (BASO) and Bachelor of Science in Social Work (BSSW):

Criminal Justice is the scientific and humane study of crime, the criminal justice system, criminals, and society's reaction to crime. Criminal justice is a constantly changing discipline because laws change, new scientific and technological discoveries influence the forensic and investigation instructions as well as the changing cultural dynamics of the United States and globalization require familiarity with world languages and geography.

The undergraduate curriculum includes policy and legal issues, qualitative and quantitative research, interpersonal relations and administrative procedures. The curriculum integrates writing and verbal communication skills throughout the instructional experiences. Computer-based research and geo-mapping analysis play a pivotal role in the course offerings. Students majoring in criminal justice or other STEM disciplines may also seek an undergraduate academic focus in Homeland Security Science and Technology by successfully passing with a "C grade or above in the following courses: Constitutional Law, Terrorism, Homeland Security Science and Technology, and Cyber Security. Electives in criminal justice permit the student to enroll in courses that emphasize youth studies, law enforcement, women's issues in criminal justice, and re-entry issues. The Criminal Justice program encourages self-directed study, problem solving, ethics, and a commitment to human rights as important habits and values by offering experiential learning both in the classroom and in a variety of criminal justice settings.

The Sociology program of study provides a comparative analysis of cultures, institutions, and social interaction. Students acquire knowledge of social processes and policy issues as they study social units ranging in size from small groups to global systems. Courses focus on such aspects of society as belief systems, socialization practices, the family, bureaucratic organizations, social control, social movements and social change. Research methods and statistical analyses are central parts of the program in preparation for graduate study or employment. Students may select from a variety of electives in order to focus on particular areas of interests in sociology. Courses in anthropology are an integral part of the sociology program in order to introduce students to the study of theories, concepts, and research findings of anthropologists when studying the historical and contemporary developments of human cultures.





The Social Work program prepares students to enter the field of social work, address issues and problems in contemporary urban living, and promote social and economic justice. Emphasis is on knowledge and skills for effective practice within diverse settings such as family and children, mental health, educational, substance use, and services for the elderly, as well as with diverse client populations. Skills for multi-level assessments and interventions with individuals, families, groups, organizations or communities are a core part of the curriculum.

The social work curriculum is designed for students who elect to pursue careers in social work and social welfare services or graduate study social work or in related fields. Learning takes place both in and out of the classroom, including research opportunities, service learning experiences, social justice, and other outreach activities as well as a required internship field program during the senior year.

All current and prospective undergraduate students are encouraged to email or call the Academic Department for curricular information and advising assistance. Program major academic worksheets and general information materials are available online, in the departments, in the Academic Advising Center (for four-year students), and in the Student Success Center for two-year students. Preparation for Graduate School if applicable. This narrative may assist the student with deciding elective courses.

Preparation for Graduate School

The core curriculum of each undergraduate program prepares students to attend graduate school or law school as well as enter the world of work in entry level employment with a B.A. degree. The University offers a variety of workshops to introduce students to the requirements of graduate school entry. UDC's David A. Clark School of Law offers orientation workshops and opportunities for students to shadow law students. Those who are planning to enter law or graduate school should plan to enroll in preparations for entry tests in order to improve their tests scores. The practicum experiences in criminal justice and social work are designed to offer students an opportunity to experience the world of work within these fields in preparation for future employment as well as offer opportunities for field experiences prior to graduate school.

Undergraduate research competencies are central in all three of the academic programs. Each program requires research methods and statistics as part of the core courses of study. In Criminal Justice, students must produce a capstone paper after completing research in justice systems. The program also directs the Institute for Public Safety and Justice that is devoted to research, training and community outreach. The required practicum serves as an internship opportunity for criminal justice majors in criminal justice agencies, research, or organizations involved in civic engagement or policy advocacy. Students must have their practicum site approved by the Criminal Justice practicum professor.

While Sociology does not require an internship or practicum as part of its core required courses, students may choose to use an elective as an internship in consultation with the Program Coordinator.

The University is a member of the prestigious Oak Ridge Associated Universities (ORAU) that is a 101 University member consortium committed to bringing together faculty and students to collaborate on major scientific initiatives. Both undergraduate and graduate students are encouraged to pursue internships with ORAU by checking their website frequently [www.orau.org](http://www.orau.org).



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## Department of Criminal Justice, Sociology and Social Work

### Bachelor of Arts in Criminal Justice (BACJ)

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#### Credit Statement

Total credit hours of college-level courses required for graduation: 120

#### Admission Statement

There are no admission requirements for criminal justice and sociology programs. Students must identify their major choice with the Office of the Registrar and make sure they have a file within the office of the Program Coordinators of the program they desire as a major.

#### GPA statement

Criminal Justice students must earn a minimum grade of "C" in major courses and an overall minimum GPA of 2.0 to graduate with a BA in Criminal Justice.

Criminal justice students should be aware that federal law enforcement employment requires a minimum 3.0 GPA or above, so they should check the requirements of the specific law enforcement agency they are interested in for employment. Internship and co-op placements in federal law enforcement agencies may exclude specific 3.0 and above GPA requirements if student internship and co-op performances meet the eligibility criteria.

Students interested in future employment in federal, state, county, or city law enforcement or corrections agencies should be prepared to meet physical strength and agility, age, and police background clearance requirements.

#### Residency Statement

Of the last 36 required 120 credits, 21 must be taken in residence at UDC. Criminal Justice majors are expected to see their faculty advisor for advisement.

#### Course Requirements

##### **General Education Requirements (37 credits)**

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IGED 110 Foundation Writing I (3)  
IGED 111 Foundations of Writing II (3)  
IGED 210 Discovery Writing (3)  
IGED 120 Foundations Quantitative Reasoning (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 260 Discovery Science + lab \* (4)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Explorations and Capstone I (1)  
IGED 392 Frontier Explorations and Capstone II (2)  
IGED 130 Foundation Oral Communications (3)  
IGED 250 Discovery Technology (3)

Criminal Justice majors should take biological sciences, environmental sciences, human anatomy & physiology, or chemistry.

##### **Program Core Courses**

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IGED101 Freshmen Orientation (1)  
CRIM 100 Criminal Justice Systems (3)  
CRIM 102 Criminology (3)  
CRIM 175 Geospatial Analysis (3)  
GEOG 103 World Cultural Geography (3)  
or  
GEOG 105 World Regional Geography

PSYCH 201 Principles of Psychology (3)  
POLI 206 American Government (3)  
CRIM 232 Criminal Behavior (3)  
CRIM 221 Criminal Procedure (3)  
CRIM 224 Issues in Criminal Law (3)  
CRIM 234 Juvenile Justice (3)  
CRIM 271 Dynamics of Human Relations (3)  
CRIM 272 Conflict Resolution and Mediation (3)  
CRIM 203 Forensic Science/Investigation (3)  
LANG World Language I (3)  
LANG World Language II (3)  
CRIM 300 Constitutional Law (3)  
CRIM 390 Practicum (3)  
CRIM 309 Justice in a Multicultural Society (3)  
URST 310 Ethics in Public Service (3)  
HIST 410 History of Crime and Punishment (3)  
CRIM 450 Research in Justice Systems (3)  
CRIM 451 Research in Justice Systems Lab (1)  
CRIM 491 Senior Project (3)  
CRIM 497 Program Design & Evaluation (3)  
CRIM Criminal Justice Special Topic Electives (15)  
**Writing Intensive Course (Consult with your Faculty Advisor)**

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## Department of Criminal Justice, Sociology and Social Work

### Bachelor of Arts in Criminal Justice (BACJ)

#### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the Criminal Justice core requirements and graduate in a timely manner.

Year 1: Semester 1		
ORTN 101	Freshman Orientation <b>(optional)</b>	0
IGED 120	Foundations in Quantitative Reasoning I	3
or		
MATH 105	Intermediate Algebra	3
IGED 110	Foundations in Writing I	3
IGED 130	Foundations in Oral Communications	3
CRM 102	Criminology	3
CRIM 100	Criminal Justice Systems I	3
		Total 15
Year 1: Semester 2		
IGED 111	Foundations in Writing II	3
IGED 210	Discovery in Quantitative Reasoning II	3
or		
MATH 185	Math 185 Elementary Statistics	3
PSYCH 201	Principles of Psychology	3
CRIM 175	Geospatial Analysis <b>(substitute for IGED 250 Discovery Technology)</b>	3
POLI 206	Intro to American Government	3
		Total 15
Year 2: Semester 3		
IGED 210	Discovery of Expository Writing	3
PHIL 105	Intro to Logic <b>(substitute for IGED 140 Foundations in Ethics)</b>	3
CRIM 150	Criminal Justice Special Topics	3
CRIM 232	Elective #1: Justice Issues in Society	3
CRIM 271	Criminal Behavior	3
CRIM 271	Dynamics of Human Behavior	3
		Total 15
Year 2: Semester 4		
IGED 260	Natural Science selected from Biological sciences, environmental science, chemistry, anatomy/physiology, or physics	4
CRIM 222	Criminal procedure	3
IGED 280	Service/Civics/Teamwork	3
GEOG 103	World Cultural or Regional Geography <b>(substitute for IGED 270 Discovery Diversity)</b>	3
CRIM 272	Conflict Resolution and Mediation	3
		Total 16

Year 3: Semester 5		
IGED 391	Frontier Exploration & Capstone I	1
CRIM 224	Issues in Criminal Law	3
CRIM 234	Juvenile Justice Systems	3
Science #2	Natural Science selected different science from biological sciences, environmental science, chemistry, anatomy/physiology or physics.	4
CRIM 203	Forensic Science/investigation	3
LANG	World Language 1	3
		Total 17
Year 3: Semester 6		
IGED 392	Frontier Exploration & Capstone II	2
CRIM 300	Constitutional Law	3
CRIM 390	Practicum	3
CRIM 309	Justice in a Multicultural Society	3
LANG	World Language 2	3
		Total 14
Year 4: Semester 7		
URST 310	Ethics and Public Service	3
CRIM 450/451	Research in Justice Systems	4
CRIM 450/451	Lecture/Lab	
HIST 410	History of Crime and Punishment	3
CRIM	Criminology Elective # 2	3
CRIM	Criminology Elective #3	3
		Total 16
Year 4: Semester 8		
CRIM	Criminal Justice Elective #4	3
CRIM 491	Senior Seminar <b>(Writing Intensive Course in Major)</b>	3
CRIM 497	Program Design & Evaluation	3
CRIM	Criminal Justice Elective #5	3
		Total 12



## Department of Criminal Justice, Sociology and Social Work

### Bachelor of Arts in Sociology (BASO)

#### Credit Statement

Total credit hours of college-level courses required for graduation: 120

#### Admission Statement

There are no admission requirements for Criminal Justice and Sociology programs. Students must identify their major with the Office of the Registrar and make sure they have a file within the office of the Program Coordinators of the program they choose.

#### GPA statement

A minimum grade of "C" is required in all sociology and anthropology courses for major and elective courses.

#### Residency Statement

Of the last 36 required 120 credits, 21 must be taken in residence at UDC.

Sociology majors are expected to meet with their faculty coordinator for advisement.

#### Course Requirements

##### General Education Requirements (37 credits)

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communication (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 140 Foundation Ethics (3)  
IGED 260 Discovery Science + lab (4)  
IGED 250 Discovery Technology (3)  
IGED 210 Discovery Writing (3)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1)  
IGED 392 Frontier Capstone II (2)

##### Program Core Courses (84 credits)

SOCY 111 Introduction to sociology (3)  
ANTH 115 Introduction to anthropology  
SOCY/ANTH 200 and 300 level Electives (15)  
SOCY 320 Research Methods (3)  
SOCY 321 Statistics for Social Research (3)  
SOCY 394 Critical analysis and writing in the social sciences (3)  
SOCY 470 Development of Social Theory (3)  
or  
SOCY 474 Anthropological Theories in Perspective  
SOCY 497 Senior Seminar (3)  
Writing Intensive Course (Consult with your Faculty Advisor) (3)  
Electives (45)  
Sociology students are advised to take the MATH 185 elementary statistics course prior to taking Statistics for Social Research.

#### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the Sociology core requirements and graduate in a timely manner.

Year 1: Semester 1 / Total Credits: 15		
IGED 110	Foundations Writing I	3
IGED 120	Foundations in Quantitative Reasoning	3
IGED 130	Foundations in Oral Communication	3
SOCY 111	Introduction to Sociology	3
	Elective	3
Year 1: Semester 2/ Total Credits: 15		
IGED 111	Foundations Writing II	3
IGED 220	Foundations in Quantitative Reasoning II	3
ANTH 113	Introduction to Anthropology	3
	Elective	3
	Elective	3
Year 2: Semester 3/ Total Credits: 15		
IGED 140	Foundations Ethics	3
IGED 250	Discovery Technology	3
IGED 210	Discovery Expository Writing in the Arts and Sciences	3
SOCY	Elective #1 in Sociology or Anthropology	3
	Elective	3
Year 2: Semester 4/ Total Credits: 16		
IGED 260	Discovery Science + Lab	4
IGED 270	Discovery Local/Global Diversity	3
IGED 280	Discovery of Service/Civics/Teamwork Course	3
SOCY	Elective #2 in Sociology or Anthropology	3
SOCY	Elective #3 in Sociology or Anthropology	3
Total 16		
Year 3: Semester 5/ Total Credits: 16		
IGED 391	Frontier Exploration and Inquiry Capstone I	1
SOCY 320	Research Methods	3
SOCY	Elective #4 in Sociology	3
SOCY	Elective #5 in Sociology	3
	Elective	3
	Elective	3
Year 3: Semester 6/ Total Credits: 14		
IGED 392	Frontier Exploration and Inquiry Capstone II	2
SOCY 321	Statistics for Social Research	3
	Elective	3
	Elective	3
	Elective	3
Year 4: Semester 7/ Total Credits: 15		
SOCY 470	Development of Social Theory	3
	or	
ANTH 474	Anthropological Theories in Perspective	3
SOCY 394	Critical Analysis and Writing in the Social Sciences	3
	Elective	3
	Elective	3
	Elective	3
Year 4: Semester 8 / Total Credits: 14		
	Writing Intensive Course in the Major	3
	Elective	3
	Elective	3
	Elective	3
	Elective	2



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## Department of Criminal Justice, Sociology and Social Work

### Bachelor of Arts in Social Work (BSW)

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#### Credit Statement

Total credit hours of college-level courses required for graduation: 120

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#### Admission Statement

Students interested in majoring in social work are encouraged to declare their intent with the Office of the Registrar as early as possible during their undergraduate studies. These students are to report to the Social Work program for an initial interview and assignment to a faculty member for professional advising, mentoring, and career counseling. A formal application for admission to the Social Work program is required upon successful completion of general education requirements and professional foundation pre-requisites listed below. In addition, the student must complete SOWK 292 - Critical Thinking, SOWK 310- Social Welfare as a Social Institution I, and SOWK-320- Human Behavior and Social Environment I, prior to applying for formal admission. Students should submit all admissions materials by February 15th of the year of their eligibility. To qualify for full admission to the program, students must maintain a GPA of 2.5 or higher in the professional foundation pre-requisite courses.

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#### GPA statement

Students must maintain a minimum 2.5 grade point average in professional foundation course work. In addition, the University requires a minimum overall quality point average of 2.0 for the BSW degree.

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#### Residency Statement

Of the remaining 36 required 120 credits, 21 must be taken in residence at UDC.

Social Work majors are expected to meet with an assigned faculty member for professional advising each semester. Please contact the director of the Social Work program for assignment to a faculty advisor.

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#### Social Work Requirements

The general education courses and professional foundation pre-requisites required for admission to the Social Work Program include:

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#### General Education Requirements (37 credits)

IGED101 Freshmen Orientation (1)  
IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 210 Discovery Writing (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 250 Discovery Technology (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1)  
IGED 392 Frontier Capstone II (2)

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#### Professional Foundation Pre-requisites

*Social Work majors should enroll in Biology with/labs I & II or Anatomy & Physiology with/labs I and II.*

PHIL 105 Introduction to Logic (3)  
URST 105 Introduction to Social Science (3)  
ANTH 115 Introduction to Anthropology (3)  
POLI 205 Introduction to Political Science (3) or  
POLI 206 Introduction to American Government (3)  
Biological Science I and II with lab Lab(8) or  
Human Anatomy and Physiology I and II with Lab (8)

#### Select one (1) of the following:

GEOG 103 World Regional Geography (3)  
GEOG 105 World Cultural Geography (3)  
GEOG 224 Economic Geography (3)  
GEOG 347 Urban Geography (3)  
URST 106 The District of Columbia (3)  
HIST 279 History of the District of Columbia (3)

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#### Professional Foundation Courses

SOWK 310 Social Welfare as a Social Institution I (3)  
SOWK 311 Social Welfare as a Social Institution II (3)  
SOWK 320 Human Behavior and Social Environment I (3)  
SOWK 292 Critical Thinking in Social Work (3)  
SOWK 331 Approaches to Group Work (3)  
SOWK 332 Social Work Practice (3)  
SOWK 333 Social Work Practice II (3)  
SOWK 433 Social Work Practice III (3)  
SOWK 340 Research in Social Welfare I (3)  
SOWK 341 Research in Social Welfare II (3)  
SOWK 342 Statistical Lab I (1)  
SOWK 343 Statistical Lab II (1)  
SOWK 490 Practicum I (5)  
SOWK 491 Practicum II (5)

Writing Intensive Course (Consult with your Faculty Advisor) (3)

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#### Social Work Electives

Social work majors complete 16 credits of general electives. Majors complete six (6) credits of Social Work electives including Black Families in Urban Communities and one (1) course selected from : Mental health Issues in Social Work practice; Contemporary Youth: Risk and Resiliency; Concepts of Family and child Welfare, or Ecology of Health, Illness, and Aging.



## Department of Criminal Justice, Sociology and Social Work

### Bachelor of Arts in Social work (BSW)

#### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the Social Work core requirements and graduate in a timely manner.

Year 1: Semester 1		
ORTN 101	Freshman Orientation	1
IGED 110	Foundations in Writing in the Arts and Humanities	3
IGED 120	Foundations in Quantitative Reasoning I	3
IGED 130	Foundations in Oral Communications	3
URST 105	Intro. To Social Science	3
	General Elective	1
		Total 14

Year 1: Semester 2		
IGED 111	Foundations in Writing in the Social and Natural Sciences	3
IGED 220	Foundations in Quantitative Reasoning II	3
POLI 205 or POLI 206	Intro. To Political Science American Government	3
	Choose one (1) of the following: (substitute for IGED 280)	
GEOG 105	Cultural Geography	3
GEOG 347	Urban Geography	
URST 106	The District of Columbia	
HIST 279	The History of D.C.	
ANTH 113	Intro. To Anthropology	3
		Total 15

Year 2: Semester 3		
IGED 250	Discovery of Effective Use of Technology	3
IGED 210	Discovery of Expository Writing in the Arts & Sciences	3
	General Elective	3
	Foreign Language Part 1 (substitute for IGED 270)	3
BIOL 101/103 or BIOL 111/113	Biological Science I Lec. and Lab (replace IGED 260) Anatomy and Physiology Lec. and Lab	4
		Total 16

Year 2: Semester 4		
IGED 260	Service/civics/teamwork	3
PHIL 105	Intro. to logic as substitute for Foundations in Ethics and Values	3
	Foreign Language Part II (substitute for IGED 270)	3
BIOL 102/104 or BIOL 111/113	Biological Science II Lec and Lab Anatomy and Physiology II Lec and Lab	4
	General Elective	3
		Total 16

Year 3: Semester 5		
IGED 391	Frontier Exploration and Capstone I	1
SOWK 310	Social Welfare as a Social Institution I	3
SOWK 320	Human Behavior in the Social Environment I	3
	Required Social Work Practice Elective	3
SOWK 292	Introduction to Critical thinking and Writing in Social Work Practice	3
	General Elective	3
		Total 16

Year 3: Semester 6		
IGED 392	Frontier Exploration and Capstone II	2
SOWK 311	Social Welfare as a Social Institution II	3
SOWK 321	Human Behavior in the Social Environment II	3
SOWK 340/343	Research Soc Welfare (Lec and Lab)	4
SOWK 332	Social Work Practice I	3
		Total 15

Year 4: Semester 7		
SOWK 333	Social Work Practice II	3
SOWK 334	Approaches to Group Work	3
SOWK 490	Practicum I	5
SOWK 340/343	Research in Social Welfare (Lec. And Lab)	4
		Total 15

Year 4: Semester 8		
SOWK 433	Social Work Practice III	3
SOWK 491	Practicum II	5
	Required Social Work Practice Elective	3
	General Elective	3
		Total 14



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## Department of Criminal Justice, Sociology and Social Work

### Masters of Science in Homeland Security(MSHS)

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The Masters of Science curriculum offers graduate students an opportunity to study homeland security. This topic refers to the broad national effort by all levels of government to protect the territory of the United States from threats, hazards, and disasters whether these be internal or external, natural or human made.

Homeland Security is a multi-disciplinary field, so students graduating from any major may seek admission to the program, particularly the STEM (Science, Technology, Engineering and Math) majors. The program emphasizes quantitative and qualitative research methods.

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#### The M.S. in Homeland Security requires 35 credit hours to complete and includes four curricular components:

- Core Homeland Security courses
- Concentration of elective courses in Homeland Security or in another STEM ( Science, Technology, Engineering and Mathematics) discipline with
- Permission from the host department
- Core interdisciplinary courses

Thesis or public policy paper representing a capstone experience  
Academic concentrations offer students a unique opportunity to shape the specialization of their degrees, in consultation with a graduate advisor, in some of the cutting- edge career specializations in homeland security. Examples of concentrations include:

- Emergency Management in Urban Areas
- CyberSecurity
- Terrorism
- Critical Infrastructure and Continuity of Operations

All current and prospective graduate students are encouraged to email or call the Program Director of the Masters program in Homeland Security.

#### Graduate Course Requirements in Homeland Security

The Masters program in Homeland Security offers a study of the national effort by all levels of the United States government to protect its territory and interests from threats, hazards, and disasters, whether internal or external, natural or human made. The University is committed to developing an enduring capacity in the human social, and behavioral sciences --priority research areas for the Department of Homeland Security's Science and Technology Directorate. The thematic focus for the Homeland Security graduate program is community preparedness, response, and recovery from catastrophic events.

Homeland Security is a multi-disciplinary field. Students graduating from any major, and particularly the STEM majors may seek admission to the program.

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#### MS HOME LAND SECURITY

The M.S. in Homeland Security requires 35 credit hours for completion and includes four curricular components:

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##### **Required Courses**

HLSC 530 Homeland Security  
HLSC 531 Individual rights and Liberties  
HLSC 532 Terrorism  
HLSC 536 Intelligence and Security  
HLSC 570 Research Techniques  
Ethics and Professional Responsibility  
MATH 599 Research methods, Statistics and Data Mining  
Public Communication for STEM Professionals

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##### **Concentration or Elective Courses (12 credits) HLSC 760 Thesis or Public Policy Paper (3)**

In addition, students must complete the Graduate Writing Proficiency Exam. Demonstrated proficiency in writing is required of all graduate students. Students must take the GRE Analytical Writing Subtest as a requirement for admission to Graduate school. The criterion score is 4. Students failing to meet the criterion must enroll in and pass (with a grade of "B" or better) English Graduate Writing Proficiency course ENGL 290 in the first semester of admission.

Demonstrated proficiency in writing is required of all graduate students. Students must take the GRE Analytical Writing Subtest as a requirement for admission to Graduate school. The criterion score is 4. Students failing to meet the criterion must enroll in and pass (with a grade of "B" or better) the English Graduate Writing Proficiency course ENGL 290 in the first semester of admission.



## Department of Political Science, History & Global Studies

■ 202.274.7403

### Department Mission

The Department is an interdisciplinary academic unit that serves students interested in studying issues in the humanities and social sciences. Utilizing a problem-solving orientation that is central to the mission of an urban land-grant university, students are prepared for advanced study in the respective disciplines, professional schools and careers in research, law, government, and diplomacy, and numerous other fields. By exposing students to a variety of human experiences, the department seeks to prepare them for the responsibilities of citizenship and an appreciation of the complexities of human affairs and difficulties involved in interpreting these disciplines. The programs create learning experiences, classroom and experiential, linking theoretical frameworks, research and practice. Each curriculum offers opportunities for interdisciplinary learning, team work, civic commitments, and the engagement of technology to enhance the quality of academic performance and a student's ability to compete for graduate study or employment. The department's vision is to provide educational experiences that produce graduates who are scholars and activists dedicated to their city, their nation, and their global community.

### Department Description

The Department of Political Science, History and Global Studies is an interdisciplinary academic unit which offers instruction leading to the Bachelor of Arts degree in Political Science and History. The development of a curriculum leading to a Bachelor of Arts degree in Global Studies will be underway during academic year 2012-2013 as a result of recent approval by the UDC Board of Trustees of the newly revised department which was formerly the Department of Urban Affairs, Social Sciences and Social Work. The Department also offers courses in Geography, Philosophy, and Urban Studies that fulfill requirements for several academic majors.

### Department Offerings

Bachelor Degrees:

Bachelor of Arts in History, Option I

Bachelor of Arts in History, Option II

Bachelor of Arts in Political Science

### Student Associations

Chi Rho Chapter, Pi Sigma Alpha, National Political Science Honor Society

Political Science & History Students Organization (PSHSO)

Global Affairs and Diplomacy Association (GADA)

(Both PSHSO and GADA are UDC Student Government accredited organizations, active in promoting scholarly, social, and professional development activities for majors and interested students).

## Department of Political Science, History & Global Studies

### History Curriculum Description

The History Program is structured to provide students maximum exposure to the complex history of the United States and the world. This broad-based knowledge is important toward understanding the interdependence of nations in the age of globalization. Through its course offerings, the curriculum provides students with a comprehensive foundation in the discipline. An important component of the History Program is its emphasis on Public History which utilizes Washington, DC, the nation's capitol, as a laboratory of public history sites. Additionally, courses are offered in Oral History, and students are provided opportunities in oral history projects that foster engagement in documenting and preserving the history of District communities as well as the activities of residents

in historical events. Internship opportunities are also available that allow students to gain practical experience and work with professionals in the field. The History Program prepares students with knowledge, skills, and competencies required for graduate study in the discipline as well as careers in the museums, local, state, and national public service, and in historical research and teaching.

The History Program offers two options leading to the Bachelor of Arts degree. A minimum of one-hundred twenty (120) credits is required to complete the degree. The first option which prepares majors for graduate study or for entering careers in the public and private sector includes thirty-eight (38) credits in the General Education core and thirty-nine (39) credits in History courses. The core requirement courses are U.S. History I and II, History of Black America, World Civilization, Philosophy and Methods of History, and Research Seminar in History. Majors must also complete twenty-one (21) credit hours of required major electives. History Option II provides content knowledge in History and Education preparing majors for professional work as teachers and to meet the certification requirements for teacher education by the Office of the State Superintendent of Education in the District of Columbia. It requires the completion of seventy-two (72) credit hours in History, Education, and Social Science courses.

A minimum grade of "C" is required in all required History courses. The requirement of History Option I is aligned with History programs offered at four-year institutions of higher learning and the discipline-related professional association, American Historical Association. History Option II is accredited by the National Council for Accreditation of Teacher Education.

Option II of the History program is a combined program of history and education that prepares majors to meet the teacher certification requirements of the Office of the State Superintendent of Education, District of Columbia. It is an interdisciplinary program and includes courses not only in history and education but also in geography, political science, economics, and other social science fields. The goal is to prepare students to teach social studies at the secondary school level. Upon successful completion of the program, students are eligible for teacher certification in the District of Columbia.

### History Program

#### Undergraduate Research Activities

All students who take classes in the History Program are required to conduct primary and secondary source research projects. The rich resource of public history sites throughout Washington, DC, the nation's capitol, is the laboratory for both research projects and experiential experiences. Through site visits to repositories, libraries, and archives, students gain first-hand experience working with primary sources. All history majors are required to conduct primary source research. Under the tutelage of department faculty, History majors present their research through poster sessions and presentations during the annual CAS Undergraduate Research Day and at annual meetings of discipline-related national conferences.

#### Political Science Curriculum

The Political Science program seeks to empower students through a rigorous academic curriculum that broadens their knowledge of political institutions and processes, instills political awareness and social consciousness, and encourages public service and civic engagement in the District of Columbia, the





nation, and the global community. It strives to provide students with skills and dispositions that promote lifelong learning as well as prepare them for the changing trends in the 21<sup>st</sup> century workforce. Through its Bachelor of Arts degree, the program seeks to serve students by providing an engaging liberal arts experience that includes technological innovation in the classroom, co-curricular activities such as the Model Organization of American States and Model Arab League, experiential activities such as the Congressional Internship Program and internships in the public and private sectors, and a faculty dedicated to student learning and professional scholarship. By facilitating the educational development of students, the Political Science program seeks to promote the welfare of the citizens of the District of Columbia in accordance with the University's mission as an urban land grant institution of higher education.

The Bachelor of Arts degree in Political Science requires a minimum of one-hundred twenty (120) credits to complete, which includes thirty-seven (37) credits in the General Education core and thirty-three (33) credits in Political Science courses. The core requirement courses are Introduction to Political Science, Introduction to American Government, Black Politics, Political Ideologies, Political Research Skills, Methods of Political Science, Senior Seminar, and Elementary Statistics. Majors must also complete nine (9) credit hours of major electives. A minimum grade of "C" is required in all required political science courses. The requirement of thirty-three credit hours is aligned with Political Science programs offered at four-year institutions of higher learning and the discipline-related professional association, American Political Science Association.

#### **GEOGRAPHY COURSES**

Geography courses are a core set of spatial analytical courses and computer software application classes to enhance the curriculum of students in other majors. While students cannot major in Geography, they may select courses that strengthen their understanding of the role of physical and cultural factors in the development of societies in the world. Students majoring in any field may also acquire competencies in the application of geographic information systems (GIS) and computer cartography.

#### **PHILOSOPHY COURSES**

While students cannot major in Philosophy, courses are offered that provide students with an understanding of major problems that have occupied philosophers in various traditions. Specific objectives are to teach students to raise fundamental questions about society, its institutions, policies, and objectives. Also, a grounding in Philosophy trains students to examine critically the philosophical assumptions of a body of thought and to develop and articulate alternative philosophical frameworks. The course in logic develops analytical and inferential skills.

#### **URBAN STUDIES COURSES**

The Urban Studies program was discontinued effective fall 2011 as a result of a resolution of the UDC Board of Trustees. Students currently matriculating as Urban Studies majors will be able to complete their degree program. While students cannot major in Urban Studies, a core set of courses addressing the unique social, economic, and political problems associated with urban communities are offered in support of other academic majors.

All current and prospective undergraduate students are encouraged to visit or call the Department of Political Science, History and Global Studies for curricular information and advising assistance. The Department is located in building 41, 4<sup>th</sup> floor, suite 413.

Program major academic worksheets and general information materials are available online the departments office and the Academic Advising Center for four-year students and in the Student Success Center for two-year students.

#### **Political Science Program**

##### **Undergraduate Research Activities**

The Political Science program has a capstone experience which requires students to successfully complete three (3) research based courses, in sequential order, and to apply acquired research skills in conducting a research project that results in the submission of an empirical paper, oral presentation, and defense. The three (3) building block courses are Political Research Skills (295), Methods of Political Science (497) and Senior Seminar (498). Under the tutelage of department faculty, Political Science majors present their research through poster sessions and presentations during the annual CAS Undergraduate Research Day and at annual meetings of discipline-related national conferences.

##### **Congressional and Public Sector Internships**

Washington, D.C., the center of the national government and the government of District of Columbia serves as a laboratory offering students the opportunity to interact and observe the practical aspects of the discipline of Political Science. Students participate in numerous internships that provide opportunities for modeling future career options. The Congressional Internship Program (CIP) offers students the opportunity to serve as staff interns in a Congressional office while earning academic credit. Students acquire hands-on experience at the level of the federal government, establish professional networks, and integrate their internship experience and scholarship through rigorous academic mentorship with department faculty.

##### **Co-Curricular Activities**

A major Political Science initiative is the annual participation of students in the Model Organization of American States and Model Arab League, international model simulation projects. These activities link students to opportunities for participation in global affairs by interacting with the diplomatic community and establishing relationships with students throughout the western hemisphere.



## Department of Political Science, History & Global Studies

### Bachelor of Arts in History Option I and II

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#### Credit Statement:

Total credit hours of college-level courses required for graduation:  
120

#### Admission Statement

The History Major is unrestricted, and any student eligible for admission to the University is eligible to declare History as a major.

#### GPA Statement

Students must earn a minimum grade of "C" and an average grade of "C" in all required ancillary courses and in all required History courses.

#### Residency Statement

The History Program 1 requires the completion of 39 credits of which 21 credits must be taken in residence at the University of the District of Columbia.

#### Course Requirements

##### ***General Education Requirements: Option I-History ( 39 credits)***

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Expository Writing (3)  
IGED 120 Foundation Quantitative Reasoning I (3)  
IGED 220 Foundation Quantitative Reasoning II (3)  
IGED 280 Service/Civics/Teamwork (3)  
IGED 270 Local/Global/Cultural Diversity (3)  
IGED 260 Discovery Science+ Lab (4)  
IGED 140 Foundation in Ethics (3)  
IGED 250 Effective Use of Technology  
IGED 130 Foundation in Oral Communications (3)  
IGED 391 Frontier Exploration and Capstone I (1)  
IGED 392 Frontier Exploration and Capstone II (2)

##### ***Required Courses***

HIST 101 U.S. History I (3)  
HIST 102 U.S. History II (3)  
HIST 164 History of Black America (3)  
HIST 171 World Civilization I (3)  
Or  
HIST 172 World Civilization II (3)  
HIST 394 Philosophy and Methods of History (3)  
HIST 491 Research Seminar in History (3)

##### ***Select one of the following: (3 credits)***

HIST 274 History of Socialism and Communism (3)  
HIST 276 Colonialism and Imperialism (3)  
HIST 278 History of Women of the World (3)  
HIST 279 History of DC (3)  
HIST 490 Selected Topics in History (3)

##### ***Select at least one course from three of the following areas (9 credits)***

Asian History  
African History  
European History  
Latin American History  
Middle Eastern History

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#### ***Required History Electives (9 credits)***

All elective courses must be approved by an Advisor.  
Writing Intensive Course (Consult with your Faculty Advisor)



## Department of Political Science, History & Global Studies

### Bachelor of Arts in History Option I

#### Model Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may with careful planning, be able to complete the History core requirements and graduate in a timely manner.

Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning I	3
IGED 130	Foundation in Oral Communications	3
HIST 101	U.S. History I (To 1865)	3
HIST 164	Introduction to History of Black America	3
		Total 15
Year 1: Semester 2		
IGED 111	Foundation Writing II	3
IGED 220	Foundation Quantitative Reasoning II	3
IGED 140	Foundation in Ethics	3
IGED 270	Discovery Diversity	3
HIST 102	U.S. History II (Since 1865)	3
		Total 15
Year 2: Semester 3		
IGED 210	Discovery Expository Writing	3
IGED 250	Effective Use of Technology	3
IGED 260	Discovery Science+ Lab	4
HIST 171 Or 172	History of World Civilization	3
HIST	History Elective	3
		Total 16
Year 2: Semester 4		
IGED 280	Service/Civics/Teamwork	3
IGED 391	Frontier Exploration and Capstone I	1
HIST	Elective	3
HIST	Elective	3
HIST	Elective	3
	Elective	3
		Total 16
Year 3: Semester 5		
IGED 392	Frontier Exploration and Capstone II	2
HIST	Elective	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
		Total 17
Year 3: Semester 6		
HIST 394	Philosophy and Methods of History	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
		Total 15

Year 4: Semester 7		
HIST 491	Research Seminar in History	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
		Total 15
Year 4: Semester 8		
	Elective	3
	Elective	3
	Elective	3
	Elective	2
		Total 11



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## Department of Political Science, History & Global Studies

### Bachelor of Arts in History Option II

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#### Credit Statement:

Total credit hours of college-level courses required for graduation:  
120

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#### Admission Statement

The History Major is unrestricted, and any student eligible for admission to the University is eligible to declare History as a major.

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#### GPA Statement

Students must earn a minimum grade of "C" and an average grade of "C" in all required ancillary courses and in all required History courses.

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#### Residency Statement

The History Program requires the completion of 21 credits. Of the required 39 credits for Option I, must be taken in residence at the University of the District of Columbia.

History Program requires the completion of 30 credits of the required 72 credits for Option II must be taken in residence at the University of the District of Columbia.

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#### BA History: Option II

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##### General Education Requirements (37 Credits)

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Expository Writing (3)  
IGED 120 Foundation Quantitative Reasoning I (3)  
IGED 220 Foundation Quantitative Reasoning II (3)  
IGED 280 Service/Civics/Teamwork (3)  
IGED 270 Local/Global/Cultural Diversity (3)  
IGED 260 Discovery Science+ Lab (4)  
IGED 140 Foundation in Ethics (3)  
IGED 250 Effective Use of Technology  
IGED 130 Foundation in Oral Communications (3)  
IGED 391 Frontier Exploration and Capstone I (1)  
IGED 392 Frontier Exploration and Capstone II (2)

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##### Option II: History/Social Studies Teacher Certification (72 credits)

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##### Required Courses

HIST 101 U.S. History I (3)  
HIST 102 U.S. History II (3)  
HIST 171 World Civilization I (3)  
Or  
HIST 172 World Civilization II (3)  
HIST 279 History of D.C. (3)  
HIST 394 Philosophy and Methods of History (3)  
HIST 491 Research Seminar in History (3)  
HIST History Electives (12 credits)

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##### Education Courses Required for Option II

EDFN 220 Foundations of Education (3)  
EDFN 222 Children and Youth in Urban Schools (3)  
EDPY 244 Human Development and Behavior (3)  
SPED 204 Introduction to Education of Exceptional Children (3)  
EDPY 300 Educational Psychology (3)  
EDFN 452 Methods of Teaching in Secondary Schools (3)

RDNG 315 Teaching of Reading in Secondary Schools  
EDFN 471 Observation & Student Teaching in Secondary Schools (6-12 credits)

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##### Additional Required Courses for Option II

GEOG 104 World Physical Geography (3)  
GEOG 105 World Cultural Geography (3)  
Or  
GEOG Geography Elective (3)  
ECON 201 Principles of Macroeconomics (3)  
POLI 206 Introduction to American Government (3)  
SPCH 115 Public Speaking (3)  
Or  
SPCH 116 Voice and Articulation (3)

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##### Select 3 credits hours in any one of the following

POLI Political Science  
PHIL Philosophy  
PSYC Psychology  
URST Social Science  
SOCY Sociology  
Writing Intensive Course (Consult with your Faculty Advisor) (3)

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## Department of Political Science, History & Global Studies

### Bachelor of Arts in Political Science

#### Credit Statement:

Total credit hours of college-level courses required for graduation: 120

#### Admission Statement

The Political Science Major is an unrestricted major, and any student eligible for admission to the University is eligible to declare Political Science as a major.

#### GPA Statement

Students must earn a minimum grade of "C" and an average of "C" in all required ancillary courses and in all required Political Science courses.

#### Residency Statement

The Political Science Program requires the completion of 15 credits of the required 33 credits, must be taken in residence at the University of the District of Columbia.

#### POLITICAL SCIENCE

##### BA Political Science

##### *General Education Requirements (37 Credits)*

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Expository Writing (3)  
MATH 104 Intermediate Algebra (3)  
IGED 280 Service/Civics/Teamwork (3)  
IGED 270 Local/Global/Cultural Diversity (3)  
IGED 260 Discovery Science+ Lab (4)  
IGED 140 Foundation in Ethics (3)  
IGED 250 Effective Use of Technology (3)  
IGED 130 Foundation in Oral Communications (3)  
IGED 391 Frontier Exploration and Capstone I (1)  
IGED 392 Frontier Exploration and Capstone II (2)

##### *Political Science Program Core Courses (36 credits)*

POLI 205 Introduction to Political Science (3)  
POLI 206 Introduction to American Government (3)  
POLI 207 Black Politics (3)  
POLI 285 Political Ideologies (3)  
POLI 295 Political Research Skills (3)  
POLI 497 Methods of Political Science (3)  
POLI 498 Senior Seminars (3)  
POLI Political Science Electives (9)  
MATH 185 Elementary Statistics (3)  
Writing Intensive Course (Consult with your Faculty Advisor) (3)

#### Plan of Study

This suggested program schedule illustrates one way a student might begin the curriculum in an organized fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may with careful planning, be able to complete the Political Science core requirements and graduate in a timely manner.

#### Year 1: Semester 1

IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning I	3
IGED 130	Foundation in Oral Communications	3
IGED 140	Foundation in Ethics	3
POLI 205	Introduction to Political Science	3
		Total 15

#### Year 1: Semester 2

IGED 111	Foundation Writing II	3
MATH 105	Intermediate Algebra	3
IGED 270	Discovery Diversity	3
POLI 205	Introduction to American Government	3
IGED 250	Effective Use of Technology	3
		Total 15

#### Year 2: Semester 3

IGED 210	Discovery Expository Writing	3
IGED 260	Discovery Science+ Lab	4
POLI 285	Political Ideologies	3
POLI 207	Black Politics	3
	Elective	3
		Total 16

#### Year 2: Semester 4

IGED 280	Service/Civics/Teamwork	3
IGED 391	Frontier Exploration and Capstone I	1
POLI	Elective	3
	Elective	3
	Elective	3
MATH 185	Elementary Statistics	3
		Total 16

#### Year 3: Semester 5

IGED 392	Frontier Exploration and Capstone II	2
POLI 285	Political Research Skill	3
POLI	Elective	3
	Elective	3
	Elective	3
	Elective	3
		Total 17

#### Year 3: Semester 6

POLI 497	Methods of Political Science	3
POLI	Elective	3
	Elective	3
	Elective	3
	Elective	3
		Total 15

#### Year 4: Semester 7

POL 498	Senior Seminar (3)	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
		Total 15

#### Year 4: Semester 8

	Elective	3
	Elective	3
	Elective	3
	Elective	2
		Total 11



## Department of Psychology, Counseling, and Human Development

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■ (202) 274-7406

The Department of Psychology, Counseling, and Human Development offers degrees from four distinct programs of study: (1) the Bachelor of Science in Psychology at the undergraduate level, (2) a Bachelor of Arts in Human Development at the undergraduate level, (3) the Master of Science in Counseling with concentrations in School Counseling and Mental Health at the graduate level, and (4) the Master of Arts Degree in Rehabilitation Counseling at the graduate level. In addition, undergraduate non-majors elect introductory psychology or human development courses to fulfill University-wide requirements or to meet requirements in other undergraduate majors.

The Department operates laboratories in several areas, including computer applications, psychometry, and counseling and career education. Our department's faculty is involved in research in a variety of basic and applied areas within psychology, counseling, and human development. Qualified students at the undergraduate level participate within the Science, Technology, Engineering and Mathematics (STEM) discipline and the Minority Access to Research Careers (MARC-U-Star) undergraduate student training in academic research honors programs. Undergraduate psychology students also participate in internships with The American Psychological Association and with other related associations or institutions promoting the discipline of psychology, counseling, and human development.

Graduate students with concentrations in school counseling or mental health counseling are appointed to serve as graduate research assistants. The school counseling concentration is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and the National Council for Accreditation of Teacher Education (NCATE). Qualified rehabilitation counseling graduate students are selected to become Rehabilitation Services Administration (RSA) Scholars. UDC's Rehabilitation Counseling Program (RCP) was awarded a capacity-building grant from the Rehabilitation Services Administration, which provides annual scholarships to rehabilitation counseling students willing to make a commitment to working in a state vocational rehabilitation (VR) agency. The scholars program covers scholarship (tuition/fees/books) and financial support to attend professional conferences. Upon graduation, scholarship recipients must fulfill an employment obligation in a state/federal VR system of two years for each academic year of scholarship support.

### DEPARTMENT OFFERINGS

#### ***Bachelor Degrees:***

Bachelor of Science in Psychology  
Bachelor of Arts in Human Development  
Human Development concentration options:  
Early Childhood: Infant/Toddler  
Early Childhood: Preschool

#### ***Graduate Degrees:***

Master of Science in Counseling  
Concentration options:  
School Counseling  
Mental Health Counseling  
Master of Arts Degree in Rehabilitation Counseling

### Department Policy Changes

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.



## **Department of Psychology, Counseling, and Human Development**

### **Bachelor of Arts in Human Development**

The Bachelor of Arts (B.A.) Degree Program in Human Development focuses on comprehensive care and education of children from birth to 5 years and professional interaction with their families. This program forms the academic framework, which guides developmentally appropriate practices in early childhood settings. Emphasis is placed on responding to the developmental and cultural uniqueness of each child as students in the program learn to design, implement, and evaluate curricular activities and learning environments. Each student completes a guided full-time teaching experience in infant/toddler settings or pre-k, dependent upon option chosen.

The Human Development program includes 120 credit hours with 48 credit hours in General Education (42 credit hours in Core/Foundation, 24 credit hours in option, and 6 elective hours of courses). The BA in Human Development program comprises a required capstone field experience and seminar (a requirement by the NAEYC 2002) including an electronic portfolio project, as well as cumulative course, Current Practices in Early childhood Education.

The Bachelor's Degree in Human Development Options answers the call of the Pre-k Enhancement and Expansion Amendment Act of 2008 which requires that all teachers of three and four year olds in community-based and Head Start programs must have a BA degree in ECE or a related field by 2014. The program's curriculum uses an interdisciplinary approach to human development derived from multiple fields of study such as psychology, education, sociology, and speech and language courses. To this end, the curriculum is designed to prepare teachers of preschool age children to work within the requirements of a standards-based curriculum, and at the same time meet the developmental needs of all children in all domains.

The Bachelor's Degree program in Human Development prepares students to be reflective practitioners and skilled in the care, education and service of typical and atypical developing children from birth and their families from culturally and linguistically diverse backgrounds.

Human Development students have reported a commitment to completing their Bachelors Degree with a desire to pursue their graduate studies in Early Childhood Education, Psychology, Counseling or related discipline or to continue their professional work in a setting requiring an understanding of Human Development. In particular, students have expressed a desire to carry on their careers representing traditionally underserved and underrepresented populations that are economically challenged, legally marginalized and face generations of health care disparities with regard to the availability of culturally competent professional resources. Our graduates know how humans grow, develop and learn, in a variety of settings, and are equipped to successfully guide children and their families toward the types of experiences and interactions that produce long-term, positive benefits in the areas of social/emotional development, cognitive development and school readiness. Human Development majors benefit from a program mission that asserts a philosophy of integrity-based, developmentally appropriate, research-based model that supports the programs' four cornerstones: Connecting Families with Practice, Cultural and Linguistic Diversity, Inclusion, and Accountability for Results.

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#### **Credit Statement:**

Bachelor of Arts Degree (B.A.) in Human Development,  
Total credit hours of college-level courses required for graduation:  
120

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#### **Admission Statement:**

The Human Development Major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the Human Development Major.

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#### **GPA statement:**

Students must earn a minimum grade of C- and an average of C in all required ancillary science courses and in all required Human Development courses.

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#### **Residency Statement:**

Of the 36 required Human Development credits, 21 must be taken in residence at the University of the District of Columbia.



## Department of Psychology, Counseling, and Human Development

### Bachelor of Arts in Human Development

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#### Course Requirements

##### **General Education Requirements (37 credits)**

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IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 140 Foundation of Ethics (3)  
IGED 210 Discovery Writing (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 250 Discovery Technology (3)  
IGED 260 Discovery Science + Lab  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (3)  
IGED 392 Frontier Capstone II (3)

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##### **Electives**

Complete **14 credits** of electives in any subject

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##### **Program Core Requirements**

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ECED 104 History & Phil. Of Ece (3)  
PSYC 245 Developmental Psychology (3)  
ECED 245 Child In The Family (3)  
SOCY 244 The Family (3)  
SPED 204 Introduction To Exceptional Children In Ece (3)  
ECED 211 Child Study And Assessment (3)  
SPLP 312 Language Acquisition (3)  
NUTR 318 Child Health & Nutrition (3)  
ECED 390 Human Development Practicum (3)  
ECED 408 Children In Multi-Cultural Society (3)  
ECED 491 Advanced Practicum (12)

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##### **Program Requirements: Early Childhood Infant/Toddler**

###### **Concentration**

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ECED 105 Child Development: Neuro-Science And The Developing Child (3)  
ECED 206 Infant Education I: The Learning Environment (3)  
ECED 207 Infant Education II: Biological Development (3)  
ECED 304 Play: Learning And Relating (3)  
ECED 208 Emergent Literacy (3)  
ECED 308 Emergent Literacy II (3)  
ECED 4\_\_ Prevention And Intervention In Infant Development (3)  
ECED 492 Current Practices In Early Childhood Education (3)

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##### **Program Requirements: Early Childhood Preschool Concentration**

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ECED 104 Child Development: Neuro-Science And The Developing Child (3)  
ECED 204 Curriculum Content In Early Childhood Education (3)  
ECED 245 Special Topics In Early Childhood (3)  
ECED 304 Play: Learning & Relating (3)  
ECED 208 Emergent Literacy I (3)  
ECED 308 Emergent Literacy II (3)  
ECED 410 Adaptive Learning And Teaching (3)  
ECED 492 Current Practices In Early Childhood Education (3)

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**Electives (7 credits)** will include courses in Special Education (autism), Speech and Language Pathology, Dual Language Education and Neuroscience





## Department of Psychology, Counseling, and Human Development

### Bachelor of Arts in Human Development

#### *Model Plan of Study*

The program outline illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late may, with careful planning, be able to complete the program core in a satisfactory amount of time.

Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 120	Foundation Quantitative Reasoning	3
ECED 104	History & Philosophy of ECE	3
IGED 130	Foundation Oral Communication	3
PHED	Physical Education Elective	1
		Total 13
Year 1: Semester 2		
IGED 111	Foundation Writing II	3
IGED 220	Discovery Quantitative Reasoning	3
BIOL 101	Biological Science I Lecture	3
	Biological Science I Lab: Satisfies	
BIOL 103	IGED 260: Discovery Science	1
	Requirement	
IGED 250	Discovery Technology	3
ECED 105	Child Development: Neuro-Science	3
	in the Developing Child	
		Total 16
Year 2: Semester 3		
IGED 210	Discovery Writing	3
HIST 101	U.S. History 1	3
ENSC 107	Environmental Science	3
ENSC 109	Environmental Science Lab	1
IGED 140	Foundation Ethics	3
	General Elective	3
		Total 16
Year 2: Semester 4		
PSYC-245	Developmental Psychology	3
HIST-102	U.S. History II	3
SPED-204	Intro. To Except Children in ECE	3
IGED 270	Discovery Diversity	3
	General Elective	3
		Total 15
Year 3: Semester 5		
IGED-280	Discovery Civics	3
SOCY-244	The Family	3
ECED-211	Child Study, Assessment and	3
	Evaluation	
ECED-390	Practicum I in HD	3
SPLP-312	Language Acquisition	3
		Total 15
Year 3: Semester 6		
ECED-304	Play Learning and Relating	3
ECED-208	Emergent Literacy I	3
ECED-206	Infant Education I	3
ECED-245	Child in the Family	3
ECED-492	Current Practices in Childhood	3
	Education	
		Total 15
Year 4: Semester 7		
ECED-308	Emergent Literacy II	3
ECED-408	Young Child in Multicultural Society	3
ECED-306	Infant Education II	3
ECED-4__	Prevention and Intervention in	3
	Infant/Toddler Development	
FDSC-318	Child Health and Nutrition	3
IGED 391	Frontier Capstone I	1
		Total 16
Year 4: Semester 8		
ECED-491	Advanced Practicum	12
IGED 392	Frontier Capstone II	2
		Total 14



## Department of Psychology, Counseling, and Human Development

### Bachelor of Science in Psychology

The Bachelor of Science Degree program in Psychology introduces students to the science of behavior, a science concerned with understanding the factors that affect the behavior of human and non-human species. The program provides students with a thorough introduction to the major theoretical perspectives in psychology and the scientific methodological approaches they utilize. Students are also exposed to the major specialty areas of psychology: Physiological Psychology/Neuroscience, Cognitive Psychology, Quantitative Psychology, Social Psychology, Community Psychology, Clinical/Abnormal Psychology, Personality, Health Psychology, and Developmental Psychology. Upon completion of the program, students are prepared for graduate study in psychology and related fields. Graduates who enter, or continue in, the job market may qualify for or upgrade their employment in research, mental health, and educational settings.

The Bachelor of Science in Psychology requires a minimum of 120 semester hours of academic credit. This includes university-wide requirements, 43 credit hours in Psychology, specific out-of-department requirements, and elective courses. Students begin study in the major during the sophomore year by enrolling in Principles of Psychology. Later that year, they take Critical Skills Development in Psychology and a 200-level elective. During the junior year, students complete the two-semester statistics sequence, experimental psychology, and coursework from several of the major content areas. As seniors, majors complete additional requirements, psychology electives and Senior Seminar—a course that integrates knowledge acquired in all courses, and practica and program-related activities.

Psychology majors must maintain a cumulative grade point average of 2.5 or higher in psychology courses to meet departmental requirements for graduation. A minimum grade of “C” is required in all Psychology courses. The Psychology program expects all students to adhere to the Student Code of Conduct policy and thus reserves the right to dismiss any student who displays unprofessional or unethical behavior.

Students entering the UDC Undergraduate Psychology Program have reported a commitment to complete their Bachelor of Science degree with a desire to pursue their graduate studies in Psychology, Counseling or related disciplines, or to continue their professional work in a setting requiring an understanding of human behavior. In particular, students have expressed a desire to pursue careers that address the needs of traditionally underserved and underrepresented populations that are economically which have affected the availability of culturally competent, professional resources.

UDC’s undergraduate psychology students also report an interest in working with faculty who incorporate within their professional skill-set a multicultural perspective which values cultural, social, spiritual, physical as well as psychological strategies designed to support healing the whole person, his or her family, and the community-at-large. Our faculty encourages the development of professional partnerships and collaboration within the undergraduate psychology program or other programs that make up the Department of UDC. Faculty also encourages consultation from internationally and nationally recognized professionals and practitioners outside of the university to help sustain high standards of teaching, practice, research, leadership development and advocacy of high-risk populations seeking support from the psychology profession. The program’s overall teaching and training approach is designed to ensure that the University’s psychology students receiving a Bachelor of Science degree develop comprehensive psychology skills which enhance critical thinking and support optimal decision making

skills that students can apply in professional work settings or as graduate students in a related field of study.

### *Psi Chi, the International Honor Society in Psychology*

Membership in Psi Chi, the International Honor Society in Psychology, is open to students with the requisite average. Psi Chi serves two major goals—one immediate and visibly rewarding to the individual member, the other slower and more difficult to accomplish, but which offers greater long-term rewards. The first of these is the Society’s obligation to provide **academic recognition** to its inductees by the mere fact of membership. The second goal is the obligation each of the Society’s local chapters has to nurture the spark of accomplishment by offering a climate congenial to members’ **creative development**. For example, the chapters make active attempts to nourish and stimulate professional growth through programs designed to augment and enhance the regular curriculum and to provide practical experience and fellowship through affiliation with the chapter. In addition, the international organization provides programs to help achieve these goals, including annual [Society and regional conventions](#) held in conjunction with the psychological associations, research award competitions, and certificate recognition programs.

### Psychology Major Related Student Organizations

In addition to its normal course offerings, the Department provides a number of other opportunities for students who wish to gain additional knowledge and experience in psychology. Participation in these activities is often helpful to students when they apply to graduate schools or for jobs. Some students gain experience by participating in research projects in either a paid or volunteer capacity, under the direction of faculty members or graduate students. Psychology majors can also participate in service-oriented intervention activities organized by faculty, in majors’ clubs or honor society activities. Membership in the Psychology Club, which is open to any interested psychology student, also affords students opportunities to dialog about psychological issues, hear scholarly presentations, and study cooperatively.

### Preparation for Graduate School

We strongly recommend that Psychology Majors contemplating graduate school in Psychology or Counseling take all of the Primary and Secondary Core course requirements.

### Undergraduate research

**MARC Undergraduate Student** support undergraduate students who are underrepresented in the biomedical and behavioral sciences to improve their preparation for high-caliber graduate training at the Ph.D. level. The program also supports efforts to strengthen the science course curricula and pedagogical skills of faculty as well as biomedical research training at institutions with significant numbers of students from underrepresented groups.

### Credit Statement:

The BS program in Psychology requires completing a total of 120 credit hours of college-level courses in order to graduate.

### Admission Statement

Psychology is an unrestricted major, and any student eligible for admission to the University is eligible to declare the Psychology Major.

### GPA statement

Students must earn a minimum grade of “C” and an average of “C” in all required ancillary science courses and in all required Psychology courses. Students must achieve an overall minimum average of 2.5 in their Psychology courses.

### Residency Statement

Of the 36 required Psychology credits, 21 must be taken in residence at UDC.



## Department of Psychology, Counseling, and Human Development

### Bachelor of Science in Psychology

#### Course Requirements

##### General Education Requirements (33 credits)

IGED 110 Foundation Writing I (3)  
IGED 111 Foundation Writing II (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 140 Foundation of Ethics (3)  
IGED 210 Discovery Writing (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 250 Discovery Technology (3)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (2)  
IGED 392 Frontier Capstone II (2)  
BIOL 101 Biological Sciences I Lecture (Satisfies IGED 260) (3)  
BIOL 103 Biological Sciences I Lab (1)

##### Program Core Requirements (19 credits)

PSYC 201 Principles of Psychology I (3)  
PSYC 202 Critical Skills Development in Psychology (Writing Intensive Course) (3)  
PSYC 311 Statistics I (3)  
PSYC-312 Statistics II (3)  
PSYC-314 Experimental Psychology Lecture (3)  
PSYC 315 Experimental Psychology Lab (1)  
PSYC 420 Senior Seminar/Thesis (3)

##### University-Wide Requirements for Psychology

Fine Arts (3)  
PHED Physical Education (2)

##### Secondary Core Courses(16)

*Select at least two (2) of the three (3):*

PSYC 225 Social Psychology (3)  
PSYC 235 Theories of Personality (3)  
PSYC 245 Developmental Psychology (3)

*Select at least two (2) of the three (3) courses- Junior standing required*

PSYC 317 Sensation and Perception (3)  
PSYC 318 Basic Conditioning and Learning (3)  
PSYC 319 Human Learning and Cognition (3)  
PSYC 415 Introduction to Neuroscience Lecture (3)  
PSYC 416 Introduction to Neuroscience Lab (1)

*Select at least one (1) of the two (2) Junior or Senior standing in Psychology required*

PSYC 351 Community Psychology (3)  
PSYC 436 Abnormal Psychology (3)

#### Elective Courses

*Select nine (9) credit hours:*

PSYC 137 Psychology of Adjustment (3)  
PSYC 228 Psychology of Multicultural Relations (3)  
PSYC 316 Introduction to Clinical Psychology (3)  
PSYC 327 Group Processes (3)  
PSYC 335 Tests and Measurements (3)  
PSYC 336 Psychology of Human Sexuality (3)  
PSYC 343 Health Psychology (3)  
PSYC 346 Adult Development and Aging Psychology (3)  
PSYC 352 Psychology Practicum (3)  
PSYC 353 Environmental Psychology (3)  
PSYC 395 Independent Study VC  
PSYC 396 Special Topics in Psychology VC  
PSYC 405 History and Systems (3)  
PSYC 419 Psychopharmacology (3)  
PSYC 315 Industrial Organization in Psychology (3)

##### Additional Psychology Program Requirements (16)

BIOL 101 Biological Science I (3)  
BIOL 103 Biological Science I Lab (1)  
BIOL 102 Biological Science II (3)  
BIOL 104 Biological Science II Lab (1)

*After completing Biology I and II students must select one of the following three options identified below. When completing this final science requirement the two course sequence must be completed with a satisfactory grade.*

##### The Physics Option:

PHYS 101 Introduction to College Physics I (3)  
PHYS 103 Introduction to College Physics I Lab (1)  
PHYS 102 Introduction to College Physics II (3)  
PHYS 104 Introduction to College Physics II Lab(1)

##### Or

##### The Chemistry Option:

CHEM 111 Introduction to Chemistry I (3)  
CHEM 113 Introduction to Chemistry I Lab (1)  
CHEM 112  
CHEM114 Introduction to Chemistry II Lab (1)

##### Or

##### The Anatomy & Physiology Option:

BIOL111 Fundamental Human Anatomy & Phys I (3)  
BIOL 113 Fundamentals of Anatomy & Physiology I Lab (1)  
BIOL 112 Fundamental Human Anatomy & Phys II (3)  
BIOL 114 Fundamentals of Anatomy & Physiology II Lab (1)

##### University Electives

Complete 22 credits of electives in any subject.



## Department of Psychology, Counseling, and Human Development

### Bachelor of Science in Psychology

#### Model Plan of Study

The psychology major is designed to give students a measure of flexibility to pursue their particular interests and career goals in the choice of secondary psychology core requirements and electives. All students must take all of the core requirements in the proscribed sequence. Therefore, it is strongly recommended that students take the required pre-requisites before enrolling in the more advanced, required major courses.

Psychology majors are assigned a faculty advisor when they declare psychology as a major. It is strongly recommended that psychology majors meet with their advisors early in their college career (freshman semester) to discuss their educational and career goals and develop a tentative program of study, based on the sequential course offerings.

The program outlined illustrates one way a student might progress through the psychology curriculum in an orderly fashion. Psychology electives will vary based on students' professional and career goals.

Year 1: Semester 1		
IGED 110	Foundation Writing I*	3
IGED 120	Foundation Quantitative Reasoning*	3
IGED 130	Foundation Oral Communications	3
	Elective	3
	Elective	3
		Total 15
Year 1: Semester 2		
IGED 111	Foundation Writing II (3)	3
IGED 220	Discovery Quantitative Reasoning (3)	3
PSYC 137	Psychology of Adjustment (3)	3
	Elective	3
	Elective	3
		Total 15
Year 2: Semester 3		
IGED 140	Foundation Ethics (3)	3
IGED 250	Discovery Technology (3)	3
IGED 210	Discovery Writing (3)	3
PSYC 201	Principles of Psychology (3)	3
BIOL 101/103	Biological Science I Lec. (3) Lab (1)	4
		Total 16
Year 2: Semester 4		
IGED 260	Discovery Science + Lab (4)	4
IGED 270	Discovery Diversity(3)	3
PSYC 202	Critical Skills in Psychology (3)	3
BIOL 101/103	Biological Science II Lec (3) Lab (1)	4
		Total 14
Year 3: Semester 5		
IGED 280	Discovery Civics (3)	3
PSYC 311	Statistics I (3)	3
PSYC 245	Developmental Psychology (3)	3
BIOL 111/113	Anatomy and Physiology I Lec (3) Lab (1)	4
	Elective	3
		Total 16

Year 3: Semester 6		
PSYC 312	Statistics II (3)	3
PSYC 235	Personality (3)	3
PSYC 319	Human Learning and Cognition (3)	3
BIOL 112/114	Anatomy and Physiology II Lec (3) Lab (1)	4
	Elective	3
		Total 16
Year 4: Semester 7		
IGED 391	Frontier Capstone I (1)	1
PSYC 313	Experimental Psychology Lec (3)	3
PSYC 314	Experimental Psych Lab (1)	1
PSYC 405	History and Systems (3)	3
PSYC	Psychology Elective	3
	Elective	3
		Total 14
Year 4: Semester 8		
IGED 392	Frontier Capstone II(2)	2
PSYC 420	Senior Seminar (3)	3
PSYC 415	Neuroscience Lec (3) Lab (1)	4
PSYC 436	Abnormal Psychology (3)	3
	Elective	3
		Total 15



## Department of Psychology, Counseling, and Human Development

### Master of Science degree in Counseling

#### Graduate Programs in the Department of Psychology Counseling and Human Development

The Department of Psychology, Counseling, and Human Development offers the Master of Science degree in Counseling with concentrations in School, Mental Health, and Rehabilitation Counseling. The program prepares individuals to function as professionals in educational institutions, community based agencies, and group homes.

The school counseling concentration is accredited by the Council for Accreditation of Counseling and related Educational Programs (CACREP) and the National Council for Accreditation of Teacher Education (NCATE). The concentration also meets certification requirements of the District of Columbia Public Schools. Students entering the school counseling specialization are expected to complete field experience requirements for elementary and middle school or high school. Field placements for the school concentrations are available during the fall and spring semesters only.

Students must commit a minimum of 20 hours weekly on site. Students enrolled in the mental health or rehabilitation concentrations will have the option of extending their field experience during the summer sessions with the approval of the faculty. Students interested in professional licensure or clinical certification should obtain copies of the licensure and certification standards from the state office or the appropriate professional association.

The program of study requires the completion of 54 semester hours that includes a core of nine semester hours covering professional orientation, theoretical knowledge, research and evaluation; nine (9) hours of field experience, (30) hours of basic program requirements, and a minimum of (6) hours of course electives. Electives are chosen from areas of preference and in consultation with faculty advisor. Students must maintain a grade point average of 3.0 or better to remain in good standing and a 3.0 in all major courses. A student may repeat a required course no more than one time. If the student is unable to achieve a "B" or better in the required course, the student may petition the faculty for a review of his/her status to continue in the program. The Department of Psychology, Counseling, and Human Development reserves the right to revise the program requirements and standards without prior notice. The faculty in this department also reserves the right to dismiss any student who displays unprofessional, unethical, or adverse behavior.

Students entering the UDC Graduate Counseling Program have reported a commitment to complete their degree with a desire to work with client groups representing traditionally underserved and underrepresented populations who are economically challenged, legally marginalized, and face generations of health care disparities with regard to the availability of culturally competent, professional resources. UDC counseling students also report an interest in working with faculty who incorporate within their professional skill-set a multicultural perspective that values cultural, social, spiritual, physical as well as counseling and psychological strategies designed to support healing the whole person, his/her family and the community-at-large. Our faculty encourages the development of professional partnerships and collaboration within the Graduate Counseling Program, the Department of Psychology, Rehabilitation Counseling and Human Development as well as related disciplines within UDC. Faculty also encourages consultation from

internationally and nationally recognized professionals and practitioners outside of the university to help sustain high standards of teaching, practice, research, leadership development, and advocacy of high-risk populations seeking support from the counseling profession. The program's overall teaching and training approach is designed to ensure that graduating students develop comprehensive counseling skills that enhance critical thinking and improve clinical decision making in ways that promote optimal counseling and mental health care to clients.

#### Internship Opportunities

Graduate students with concentrations in School and Mental Health Counseling receive support from faculty in seeking out and obtaining opportunities to receive training and supervision within school and treatment facilities. For students pursuing a concentration in School Counseling, opportunities are available within elementary, middle, junior and high school settings located within Washington, DC. For students pursuing a concentration in Mental Health Counseling, opportunities are available within psychiatric hospital programs, mental health treatment facilities, substance abuse clinics, homeless shelters, and community mental health programs located within the Washington, DC area.

#### Research Opportunities

Graduate students interested in developing research interests are invited by full-time and part-time faculty to receive mentoring, advising and supervision with faculty on-going research projects.

#### Department list of Honor Societies and Student Organizations

##### Counseling Honor Society

**Chi Sigma Iota (CSI)** is an international honor society for students, professionals' counselors and counselor educators. CSI promotes a strong professional identity through members (professional counselors, counselor educators, and students), who realize the importance of a healthy society by fostering wellness and human dignity. The CSI's mission is to promote scholarship, research, professionalism, leadership, advocacy, and excellence in counseling, and to recognize high attainment in the pursuit of academic and clinical excellence in the profession of counseling.

##### Student Organization

**The Graduate Counseling Club (GCC).** The GCC meets regularly to engage students in activities/programs/events designed to enhance the professional identity of students as counselors. Students are encouraged to join and participate with student chapters of professional associations that support the professional identity of counseling. Students are also encouraged to collaborate with fellow graduate students, faculty, and administrators. Advisory support is provided to help students improve academic growth, support career planning, and prepare students for Licensure Professional Counseling (LCP) exam preparation. The GCC is a recognized UDC Student Affairs Student Organization.

##### Accreditation

The school counseling concentration is accredited by the Council for Accreditation of Counseling and related Educational Programs (CACREP) and the National Council for Accreditation of Teacher Education (NCATE), and it also meets certification requirements of the District of Columbia Public Schools.



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### Professional Affiliations

Students are encouraged to become student members of the American Counseling Association (ACA). This professional association provides the pre- and post-Baccalaureate professional affiliation and development as well as opportunities to serve in student and professional counseling leadership positions.

### Admission Statement

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#### Master of Science in Counseling Requirements for Admission

To be considered for admission to graduate study in counseling, the applicant must meet the following requirements:

1. Hold a baccalaureate degree from an accredited college or university, preferably a major in education and/or social sciences.
2. Submit two official transcripts from all prior undergraduate and graduate work. Applicants must have an undergraduate grade point average of 2.8 or higher.
3. Submit official scores from a recent administration (within the last two years) of the Graduate Record Exam Verbal, Quantitative, Analytical Reasoning and Essay tests.
4. Submit three letters of recommendation. One letter should be from an individual familiar with the applicant's capacity for relating to clients, professionalism, and personal attributes.
5. A 500-word essay articulating reasons for pursuing graduate studies in counseling, familiarity with the profession, and related work experience.

### GPA statement

Students must maintain a grade point average of 3.0 or better to remain in good standing and a 3.0 in all major courses. A student may repeat a required course no more than one time. If the student is unable to achieve a "B" or better in the required course, the student may petition the faculty for a review of his/her status to continue in the program. The Department of Psychology, Counseling, and Human Development reserves the right to revise the program requirements and standards without prior notice. The faculty in this department also reserves the right to dismiss any student who displays unprofessional, unethical, or adverse behavior.

### Advancement to Candidacy

Students must submit a request to advance to candidacy upon successfully completing a minimum of 12 semester hours. Readiness for candidacy will be determined by the cumulative grade point average, an acceptable score on a comprehensive examination, and successful completion of all core requirements.

### Graduation Requirements

Students must satisfy one of the following requirements to exit the program:

1. 48 semester hours, thesis (6 additional semester hours) and the Counselor Preparation Comprehensive Exam or
2. 42 semester hours of core and basic requirements, 12 semester hours of electives that include a special project with a seminar paper and the Counselor Preparation Comprehensive Exam.

### Advancement to Graduation Requirements

Students must apply for the FINAL COMPREHENSIVE EXAM by one semester prior to their graduation date.

*The Counselor Preparation Comprehensive Exam is a standardized assessment provided by the National Board of Certified Counselors (NBCC). The exam fee is determined by NBCC.*

### Graduate Writing Proficiency Examination

Refer to the University Writing Proficiency requirements.

### Course Requirements

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#### Program Core Requirement (21 Credits)

CNSL-509 Counseling Philosophies  
CNSL-514 Theories of Counseling  
CNSL-532 Introduction to Research and Program Evaluation  
CNSL-531 Ethics, Legal & Legislative Issues

CNSL-557 Human Growth and Development  
CNSL-517 Career Theories and Development  
CNSL-519 Appraisal Techniques in Counseling

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#### Advancement to Candidacy

At the completion of passing the 21 Credit Core Requirement Courses Graduate Students are then eligible to sit for an Exam that Advances the Graduate Student's Candidacy to the final stage of completing their M.S. Degree in the Counseling Program.

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#### Program Core Requirements

CNSL-530 Techniques of Counseling  
CNSL-510 Group Counseling  
CNSL-518 Supervision in Practicum & Field Experience (100 field hours required)  
CNSL-521 Internship & Field Experience I (300 field hours required)  
CNSL-522 Internship & Field Experience II (300 field hours required)  
CNSL-513 Cultural Diversity Issues and Multicultural Counseling  
*Comments: Students must submit their request to enroll in Practicum and internships one semester in advance. The request must be submitted to the faculty advisor. All placements for field experiences must be completed with the schools or agencies one semester in advance.*

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#### ELECTIVE REQUIREMENTS

CNSL-507 Grief Counseling  
CNSL-529 Human Sexuality and Sexual Dysfunctions  
CNSL-533 Trauma and Crisis Intervention  
CNSL-543 Addiction Disorders  
CNSL-544 Family Counseling  
CNSL-555 Counseling the Elderly  
CNSL-545 Independent Research Study  
CNSL-596 Special Topics in Counseling Identify Course Topic: (e.g., Couples Counseling)  
CNSL-528 Drug Abuse Prevention/Treatment  
PSYC-505 Advanced Personality Theory & Learning Process  
PSYC-543 Advanced Statistics & Research Design  
PSYC-548 Psychopharmacology  
CNSL-599 Thesis  
Master's Thesis Project  
Master's Thesis

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#### GRADUATE COUNSELING CONCENTRATIONS

##### School Counseling

CNSL-556 Seminar School Counseling  
CNSL-546 Counseling Children and Adolescents  
CNSL-508 Organization and Administration of Counseling

##### Mental Health/Agency Counseling

PSYC-595 Diagnosis & Treatment Planning  
CNSL-544 Family Counseling  
Elective

##### Rehabilitation Counseling

RHCN-500 Foundations of Rehabilitation Counseling  
RHCN-501 Psycho-social and Medial Aspects of Disability in Rehabilitation Counseling3 cr.  
RHCN-502 Career Counseling and Job Development and Placement in Rehabilitation  
RHCN-503 Introduction to Assistive Technology  
RHCN-504 Principles and Practices of Case Management in Rehabilitation  
RHCN-505 Directed Reading in Rehabilitation  
or courses in the MA Rehabilitation Program

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#### Preparation for Doctoral Programs

We recommend that Graduate Counseling degree students completing their M.S. degree consider enrolling in a doctorate program in Counseling with concentrations in School Counseling, Mental Health Counseling, or Higher Education Administration.



## **Department of Psychology, Counseling, and Human Development**

### **Master of Arts in Rehabilitation Counseling**

UDC's Rehabilitation Counseling Program (RCP) offers the Master of Arts Degree preparing students for work with individuals experiencing disabilities including physical, emotional, personal, family, social, educational, and career problems that impede individuals from becoming fully employable. The program provides students with the conceptual, personal, and technical skills needed for professional practice. In addition, the rehabilitation counseling program help prepare future rehabilitation counselors to empower persons with disabilities to help themselves. The RCP emphasizes the philosophical foundations of rehabilitation; theories; behavior and personality theory; human development; multicultural counseling; mental health counseling, individual, group and family counseling; attitudinal and architectural barriers; rehabilitation services; career development, case management; assistive technology; medical and psychosocial aspects of disability; job placement; and ethical standards for rehabilitation counselors.

RCP requires two/three years of full-time study. Full-time students can complete the 48 semester-hour program in 2 years (including summers). Part-time study is possible, as most courses are scheduled in the evenings or weekends. Part-time students should consult their academic advisor to determine the length of time it will take to complete the degree requirements. Students may transfer a maximum of nine (9) semester credit hours of graduate coursework successfully completed at another accredited institution. Students must maintain a grade point average of 3.0 or better to remain in good standing, and a 3.0 in all major courses. A student may repeat a required course no more than one time. For required courses, if students are unable to achieve a grade of "B" or better, students may petition the faculty for a review of their status to continue in the program. The RCP reserves the right to revise the program requirements and standards without prior notice. The faculty also reserves the right to dismiss any student who displays unprofessional or adverse behavior.

Students are encouraged to attend regional and national conferences and eventually to become student members of the National Council on Rehabilitation Education (NCRE), the American Rehabilitation Counseling Association (ARCA) or the National Rehabilitation Counseling Association (NRCA). Student membership in NCRE, ARCA or NRCA offers opportunities for educational and professional development and leadership opportunities for students to develop as a Professional Rehabilitation Counselors.

With faculty support and mentorship, students may seek internships or pursue research projects designed to help students ultimately achieve professional certification credentials as a CRC (Certified Rehabilitation Counselor).

#### ***Internship Opportunities***

With faculty support and mentorship, students may seek internships designed to help ultimately achieve professional certification credentials as a CRC (Certified Rehabilitation Counselor).

Rehabilitation counseling students receive support from faculty in seeking out and obtaining opportunities to receive training and supervision primarily within rehabilitation counseling, and state and vocational rehabilitation (VR) agency treatment facilities. Opportunities are also available within psychiatric hospital programs, mental health treatment facilities, substance abuse clinics, and community mental health programs located within the Washington, DC area.

#### ***Research Opportunities***

With faculty support and mentorship, students may pursue research projects designed to help students ultimately achieve professional certification credentials as a CRC (Certified Rehabilitation Counselor).

Graduate students interested in developing research interests are invited by full-time and part-time faculty to receive mentoring, advising and supervision with faculty on-going research projects.

#### ***Department Mission:***

Students entering the RCP have reported a commitment to completing their degree with a desire to work with client groups representing traditionally underserved and underrepresented populations that are economically challenged, legally marginalized, and who face generations of health care disparities with regard to the availability of culturally competent, professional resources. RCP students also report an interest in working with faculty that incorporate within their professional skill-set a multicultural perspective that values cultural, social, spiritual, and physical as well as psychological strategies designed to support healing the whole person, his/her family, and the community-at-large. The faculty encourages the development of professional partnerships and collaboration within RCP, the Graduate Counseling Program, and the Department of Psychology, Counseling and Human Development as well as UDC. Faculty also encourages consultation from internationally and nationally recognized professionals and practitioners outside of the university to help sustain high standards of teaching, practice, research, leadership development and advocacy of high-risk populations seeking support from the RCP profession. The program's overall teaching and training approach is designed to ensure that graduating students develop comprehensive rehabilitation counseling skills that enhance critical thinking and improve clinical decision making in ways that promote optimal rehabilitation and mental health care to clients.

#### ***Professional Affiliations***

Students are encouraged to attend regional and national conferences and eventually to become student members of the National Council on Rehabilitation Education (NCRE), The American Rehabilitation Counseling Association (ARCA) or The National Rehabilitation Counseling Association (NRCA). Student membership in NCRE, ARCA or NRCA offers opportunities for educational and professional development and leadership opportunities for students to develop as a Professional Rehabilitation Counselor. These professional associations provide the pre and post-Baccalaureate professional affiliation and development as well as opportunities to serve in student and professional rehabilitation counseling leadership positions.



### **Admission Statement**

#### **Master of Arts in Rehabilitation Counseling**

To be considered for admission, the applicant must meet the following requirements:

1. Submit a complete UDC graduate application
2. Hold a baccalaureate degree in rehabilitation counseling, psychology, sociology, allied health science, education and/or related human services from an accredited college or university with a cumulative GPA of 2.5.
3. Submit two (2) official transcripts from all prior college and graduate work.
4. Submit three (3) professional references addressing character, academic promise, and professional suitability for the Rehabilitation program.
5. Submit a personal statement of no more than 500-words detailing the student's interest in the RCP program, personal characteristics and professional experiences that influenced his/her interest in pursuing a degree in rehabilitation counseling.
6. Submit official scores from a recent administration of the Graduate Record Examination.
7. For applicants without the baccalaureate in education and/or social science maybe required to take additional courses as determined by the admission committee upon review of official transcripts.

### **GPA statement**

Students must maintain a grade point average of 3.0 or better to remain in good standing and a 3.0 in all major courses. A student may repeat a required course no more than one time. If the student is unable to achieve a B or better in the required course, the student may petition the faculty for a review of his/her status to continue in the program. The Department of Psychology, Counseling and Human Development reserves the right to revise the program requirements and standards without prior notice. The faculty in this department also reserves the right to dismiss any student who displays unprofessional, unethical and adverse behavior.

### **Advancement to Candidacy**

Students must submit a request to advance to candidacy upon successfully completing a minimum of 12 semester hours. Readiness for candidacy will be determined by the cumulative grade point average, an acceptable score on a comprehensive examination, successful completion of all core requirements.

### **Graduation Requirements**

Students must satisfy one of the following requirements to exit the Program:

1. 48 semester hours, thesis (6 additional semester hours) and the Counselor Preparation Comprehensive Exam. Or
2. 42 semester hours of core and basic requirements, 12 semester hours of electives that include a special project with a seminar paper and the Counselor Preparation Comprehensive Exam

*The Counselor Preparation Comprehensive Exam is a standardized assessment provided by the National Board of Certified Counselors (NBCC). The exam fee is determined by NBCC.*

### **Graduation Requirements**

At the conclusion of the student's major courses (minimum 48 semester hours), each student will prepare and submit a professional portfolio and successfully pass a comprehensive examination. The development of a professional portfolio is a summative assessment which enables students to document and verify the knowledge, skills, and competencies acquired during program matriculation and will requires documentation of knowledge and skills with supporting evidence in core competency areas. The RCP utilizes the Certified Rehabilitation Counseling Examination as its comprehensive examination. This additional summative assessment will measure the student's integration of knowledge in rehabilitation counseling, ensuring competence in the field.

### **Advancement to Candidacy**

Students must submit a request to advance to candidacy upon successful completion of a minimum of 12 semester hours. Readiness for candidacy will be determined by the cumulative grade point average, an acceptable score on a written qualifying examination, and successful completion of foundation courses.





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## Department of Psychology, Counseling, and Human Development

### Master of Arts in Rehabilitation Counseling

#### Track Options

The curriculum includes 36 hours of core courses, a 3-hour elective, 9 hours of supervised practicum (100 clock hours), and a supervised internship (600 clock hours). Students can select one of two curriculum tracks —

- Track 1 — Certification: 48-hours and comprehensive examination
- Track 2 — Licensure: 60-hours and comprehensive examination.

#### Course Requirements

##### Track Options

The curriculum includes 36 hours of core courses, a 3 hour elective, and 9 hours of supervised practicum (100 clock hours) and a supervised internship (600 clock hours). Students can select one of two curriculum tracks —

- Track 1 — Certification: 48-hours and comprehensive examination  
Track 2 — Licensure: 60-hours and comprehensive examination.

##### First Semester

RHCN-500 Foundations of Rehabilitation Counseling  
RHCN-507 Career Counseling in Rehabilitation  
RHCN-508 Rehabilitation Counseling Theories  
RHCN-524 Ethics in Rehabilitation Counseling

##### Second Semester

RHCN-504 Principles and Practices of Case Management  
RHCN-506 Psychosocial and Medical Aspects of Disability in Rehabilitation Counseling I  
RHCN-522 Application of Rehabilitation Counseling in a Field Based Setting  
RHCN-509 Introduction to Rehabilitation Research

##### Summer Session

Elective

##### Third Semester

RHCN-523 Applications of Assistive Technology in Rehabilitation  
RHCN-514 Psychosocial and Medical Aspects of Disability in Rehabilitation Counseling II  
CNSL-513 Cultural Diversity Issues & Multicultural Counseling  
RHCN-513 Job Development and Placement in Rehabilitation

##### Fourth Semester

RHCN-510 Practicum in Rehabilitation Counseling

##### Summer

Elective

##### Fifth Semester

RHCN-511 Internship I in Rehabilitation Counseling

##### Sixth Semester

RHCN-512 Internship II in Rehabilitation Counseling

##### Electives & Specialization Courses

RHCN-515 Developmental Disorders in Rehab  
RHCN-516 Rehabilitation & Traumatic Brain Injury  
RHCN-517 Rehabilitation & Psychiatric Disabilities  
RHCN-518 Rehabilitation, Transition & the Educational Setting  
RHCN-525 Introduction to Vocational Evaluation  
RHCN-521 Clinical Report Writing in Rehabilitation  
RHCN-519 Neurological Assessment Lecture  
RHCN-520 Neurological Assessment Lab  
CNSL-543 Addiction Disorders  
PSYC-523 Assessment of Intelligence Lecture  
PSYC-530 Assessment of Intelligence Lab

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##### Electives & Specialization Courses (con't)

PSYC-525 Assessment of Personality Lecture  
PSYC-526 Assessment of Personality Lab

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##### Electives & Specialization Courses (con't)

PSYC-525 Assessment of Personality Lecture  
PSYC-526 Assessment of Personality Lab

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##### Preparation for Doctoral Programs

It is recommended that Graduate Counseling Students completing their M.A. degree consider enrolling in a doctorate program in Rehabilitation Counseling.

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##### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.



## School of Engineering and Applied Sciences

☎ 202.274.5220

Welcome to the School of Engineering and Applied Sciences (SEAS) at the University of the District of Columbia! Our mission is to help YOU become successful in engineering, computer science, or information technology. Working closely with professors you will learn the fundamentals and reinforce your learning by doing projects that tackle important real-world problems. The School of Engineering and Applied Sciences prepares students for professional careers in engineering, computer science, and applied sciences. Various options are available within certain programs to allow you to meet your own individual interests. All programs in the School of Engineering and Applied Sciences encourage inter-disciplinary pursuits and help you prepare to enhance your life and community, and to relate professionalism to scholarship. The programs are designed to cultivate your intellectual ability, to develop your knowledge and skills, and to prepare you to think critically, analytically, and creatively. You will graduate well prepared for further study, for entering the licensing pathway to professional engineer status, and for thriving in complex, globally interconnected careers that serve and improve society.

The faculty of the School of Engineering and Applied Sciences comprises a cadre of dedicated, expert professionals who have broad backgrounds and who are active in their disciplines. Both faculty and staff work in tandem to provide a network of academic and support services, project experiences, and research opportunities so you can become a successful and competitive graduate. Courses are designed to engage students in critical thinking, continuous inquiry, and the pursuit of excellence. State-of-the-art technologies are incorporated into all phases of the curriculum and research.

The School of Engineering and Applied Sciences embraces the historic and continuing missions embodied in the 1862 Morrill Act, which established the American land-grant university system. The three tenets are research, instruction, and service through the extension of public knowledge acquired through research.

As a student in SEAS you will experience:

Bachelor's degree programs in computer science, civil engineering, electrical engineering, and mechanical engineering that are nationally accredited by ABET;

Individualized learning through small classes, mentoring, and close collaboration with expert faculty and student colleagues;  
Design and discovery through research and design projects tackling real problems in our community;

Multicultural and multidisciplinary learning experiences to prepare you for success and leadership in the global economy; and  
Research-based graduate programs to deepen your knowledge and skills and enhance your career trajectory.

We are one of only four Universities in the nation's capital providing ABET-accredited engineering degrees. Moreover, SEAS' diverse and talented professors are dedicated to providing you with educational experiences and career connections that are second to none. In addition to the myriad programs, courses and electives offered on campus, we have opportunities for international study or research through partnerships with institutions throughout the world

### Student Organizations

When you join an SEAS student organization, you're joining more than a group of peers who share your educational pursuits—you're also forming an early networking base and discovering additional learning opportunities.

There is a wide array of Student Organizations to choose from, all meeting on campus:

#### Department of Civil and Mechanical Engineering

- National Society of Black Engineers (NBSE)
- American Society of Civil Engineering (ASCE)
- American Society of Mechanical Engineering (ASME)
- Society of Automotive Engineers (SAE)

#### Department of Electrical and Computer Engineering

- Institute of Electrical & Electronics Engineering (IEEE)

#### Department of Computer Science and Information Technology

- Computer Science Club

### Facilities

Visit our website for a comprehensive list of Locations:  
[http://www.udc.edu/school\\_of\\_engineering\\_and\\_applied\\_sciences/facilities](http://www.udc.edu/school_of_engineering_and_applied_sciences/facilities)

#### Engineering Laboratory

- Machine Shop
- Metal Testing
- Advanced Communications Laboratory
- Circuits, Electronics & Digital Systems Laboratories
- Laboratory/Laboratory Instruction
- Senior Project Laboratory
- Networks
- Power Systems Laboratory
- Sun Stations, Networks & Network Training
- Computer Laboratories
- Experimental Networks Laboratory
- Instrumentation Laboratory
- Environmental Modeling and Simulation
- Fluid Mechanics and Hydraulics
- Soil Mechanics and Material Testing Laboratory
- Civil Engineering Laboratory
- Measurement and Material Testing



## School of Engineering and Applied Sciences

### Department of Computer Science & Information Technology

<http://csit.udc.edu>

☎ 202.274.6289

**Chair's Note to Students:** Although our programs continuously evolve and develop, this catalog can contain only a snapshot captured at a certain past point in time. All students are strongly encouraged to follow the web link under each section title to find the most up-to-date information.

#### DEPARTMENT OFFERINGS:

##### Bachelor Degrees:

Bachelor of Science in Computer Science (BSCS)  
Bachelor of Science Information Technology (BSIT)  
BSIT concentration offerings:  
System & Database Management  
Web Design and Administration  
Network and Computer Systems  
Network Systems and Data Communications  
Business Management  
Multimedia and Criminal Justice

##### Embedded Certificates for BSCS and BSIT :

Information Systems Security Professionals\*  
Senior Systems Manager\*

\*These certificates are not standalone certificate offerings. One must be a matriculated students in the programs to receive institutional certificates as Information Systems Security Professionals or Senior Systems Managers.

##### Graduate Degree

Master of Science in Computer Science (MSCS)

##### Faculty:

<http://csit.udc.edu/faculty.php>

##### Staff:

<http://csit.udc.edu/staff.php>

##### Mission

<http://csit.udc.edu/mission.php>

The overall mission of the computing programs is to prepare nationally and internationally competitive graduates, at the graduate, baccalaureate, and associate levels, in computer science and information technologies to meet the needs of the current and future technology era. Our department's program objectives and outcomes are consistent with the mission of the School of Engineering and Applied Sciences, which is to provide nationally competitive and fully accredited professional programs at the certificate, associate, baccalaureate, and graduate levels. These programs enable immediate employment upon graduation or for continuation for advanced level studies in the respective disciplines. The overall mission of the computing programs is to prepare nationally and internationally competitive graduates, at the graduate, baccalaureate, and associate levels, in computer science and information technologies to meet the needs of the current and future technology era. Our department's program objectives and outcomes are consistent with the mission of the School of Engineering and Applied Sciences, which is to provide nationally competitive and fully accredited professional programs at the certificate, associate, baccalaureate, and graduate levels. These programs enable immediate employment upon graduation or for continuation for advanced level studies in the respective disciplines.

#### Program Objectives

The program objectives are to produce graduates who are prepared for:

A successful immediate employment

A successful entry into graduate programs in the discipline

The most recent Program Educational Objectives are available on the program's webpage at:

<http://www.csit.udc.edu/undergraduate.php>

#### Program Outcomes

The CSIT department's programs enable students to achieve, by the time of graduation:

An ability to apply knowledge of computing and mathematics appropriate to the discipline;

An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;

An ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs;

An ability to function effectively on teams to accomplish a common goal;

An understanding of professional, ethical, legal, security, and social issues and responsibilities;

An ability to communicate effectively with a range of audiences;

An ability to analyze the local and global impact of computing on individuals, organizations and society;

Recognition of the need for, and an ability to engage in, continuing professional development;

An ability to use current techniques, skills, and tools necessary for computing practices.

An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;

An ability to apply design and development principles in the construction of software systems of varying complexity.

An ability to use and apply current technical concepts and practices in the core information technologies;

An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems;

An ability to effectively integrate IT-based solutions into the user environment;

An understanding of best practices and standards and their application;

An ability to assist in the creation of an effective project plan.

#### Bachelor of Science in Computer Science (BSCS) and

#### Bachelor of Science Information Technology (BSIT):

<http://csit.udc.edu/undergraduate.php>

Applicants who have graduated from an approved secondary school or who hold a valid General Education Development (GED) Certificate are eligible for admission to the University. Certificates of Completion and Certificates of Attendance are not acceptable credentials for admission to the University. For complete information including admission requirements for international students refer to University Course Catalog



The overall mission of the computing programs is to prepare nationally and internationally competitive graduates, at the graduate and baccalaureate levels, in computer science and information technologies to meet the needs of the current and future technology era. Computer Science is the development of computer software; Information Technology is the use of computers and software to manage information.

The Bachelor of Science in Computer Science enables students to enter the computing profession at a technical - scientific level or to proceed to graduate programs in Computer Science. It is a four-year program with a heavy emphasis on mathematics and the study of algorithmic processes to describe and transform information.

The program objectives and outcomes of our BSCS (Bachelor of Science in Computer Science) program are consistent with the mission of the School of Engineering and Applied Sciences, which is: To provide nationally competitive and fully accredited professional programs at the certificate, associate, baccalaureate, and graduate levels. These programs enable immediate employment upon graduation or for continuation for advanced level studies in the respective disciplines.

The Bachelor of Science degree in Information Technology prepares students for careers in the broadly defined field of information technology. Core courses provide students with sufficient exposure to networking and system administration, web and multimedia content development, programming and application development, including database management systems and web applications, technology integration and deployment in a user community, including needs assessment, user-centered design, technology transfer, and ongoing support. After fulfilling the core course requirements, students can obtain greater depth in several IT areas including network administration, game development or web-database integration.

The program objectives and outcomes of our BSIT (Bachelor of Science in Information Technology) program are consistent with the mission of the School of Engineering and Applied Sciences, which is: To provide nationally competitive and fully accredited professional programs at the certificate, associate, baccalaureate, and graduate levels. These programs enable immediate employment upon graduation or for continuation for advanced level studies in the respective disciplines.

The National Security Agency has recognized the University of the District of Columbia for its information assurance curriculum offered by CSIT (<http://csit.udc.edu>) and ARCTIC (<http://informaticsudcedu/arctic>), which includes specialties within the information technology and computer science degree programs. UDC graduates who meet the CSIT/ARCTIC's requirements will receive institutional certificates as Information Systems Security Professionals or Senior Systems Managers as approved by the Committee on National Security Systems National Training Standards. The University's new Assurance Research Center for Trusted Information Computing at UDC is a major resource for these programs, the students, and the associated research activity on these vital topics.

### **Department Policy Changes**

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.



## Department of Computer Science & Information Technology

### Bachelor of Science in Computer Science (BSCS)

<http://csit.udc.edu/studentadvising.php>

#### Credit Statement:

The BS program in Computer Science requires completing a total of 122 credit hours of college-level courses in order to graduate.

#### Admission Statement

This major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the **Bachelor of Science in Computer Science (BSCS)**

#### GPA Statement

Students must obtain a grade of C or better in all the courses in their major and must have an overall grade point average of at least 2.0.

#### Course Requirements for the Major

##### General Education Requirements:

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
MATH 151	Calculus I Lecture ( <i>Satisfies IGED 120</i> )	3
MATH 155	Calculus I Lab	1
MATH 152	Calculus II Lecture ( <i>Satisfies IGED 220</i> )	3
MATH 156	Calculus II Lab	1
	Natural Science Elective (Lecture + Lab) ( <i>Satisfies IGED 260</i> )	4
	Natural Science Elective (Lecture + Lab)	4
APCT 115	Foundation of Computing ( <i>Satisfies IGED 250</i> )	3
CSCI 498	Capstone Senior Project I*	2
CSCI 499	Capstone Senior Project II*	3

*\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.*

##### Program Core Requirements:

MATH 213	Discrete Math	3
MATH 225	Linear Algebra	3
MATH 381	Probability and Statistics	3
	Natural Science Elective (Lecture + Lab)	4
	Math / Science Elective **	3
APCT 110	Intro to Programming Lecture	2
APCT 111	Intro to Programming Lab	1
APCT 115	Foundations of Computing	3
APCT 231	Computer Science I Lecture	3
APCT 233	Computer Science I Lab	1
APCT 232	Computer Science II Lecture	3
APCT 234	Computer Science II Lab	1
CMOP 235	Intro to Web Page Development and HTML Lecture	2
CMOP 236	Intro to Web Page Development and HTML Lab	1
CSCI 241	Data Structure	3
CSCI 311	Computer Organization Lecture	3
CSCI 313	Computer Organization Lab	1
CSCI 325	Organization of Programming Language	3
CSCI 341	Software Engineering	3
CSCI 351	Computer Networks	3
CSCI 410	Theory of Computing	3
CSCI 412	Operating Systems	3
CSCI 415	Computer Architecture	3
CSCI 452	Database Systems Design	3
CSCI 495	Senior Seminar	1
CSCI 498	Capstone Senior Project I*	2
CSCI 499	Capstone Senior Project II*	3
PHIL 105	Intro to Logic	3
	Writing Intensive Course ( <i>Consult with your Faculty Advisor</i> )	3

*\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.*

*\*\*A high-level science or math course (300+ level)*

##### Approved Computer Science Electives

APCT 341	Advanced Web Development	3
CSCI 251	Assemblers & Systems Lecture	3
CSCI 253	Assemblers & Systems Lab	1
CSCI 315	Unix and System Programming	3
CSCI 345	Human Computer Interaction	3
CSCI 414	Introduction to Artificial Intelligence	3
CSCI 424	Introduction to Compiler Design	3
CSCI 434	Analysis of Algorithms	3
CSCI 435	Digital Image Processing	3
CSCI 441	Digital Forensics	3
CSCI 453	Secure Software Engineering	3
CSCI 454	Computer Graphics	3
CSCI 455	Cryptography	3
CSCI 456	Visualization	3
CSCI 490	Special Topics	3



## Department of Computer Science & Information Technology

### Bachelor of Science in Computer Science (BSCS)

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

#### Bachelors of Science in Computer Science Four Year Plan of Study

Credit Hours: 122

Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 151/MATH 155	Calculus I (Lecture + Lab)	4
APCT 110/111	Intro to Programming (Lecture + Lab)*	3
APCT 115	Foundations of Computing	3
Sub – Total		16
Year 1: Semester 2		
IGED 111	Foundation Writing II	3
MATH 152/156	Calculus II (Lecture + Lab)	4
APCT 231/233	Computer Science I (Lecture + Lab)	4
PHIL 105	Intro to Logic	3
Sub – Total		14
Year 2: Semester 3		
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
APCT 232/234	Computer Science II (Lecture + Lab)	4
	Natural Science Elective (Lecture + Lab)	4
Sub – Total		14
Year 2: Semester 4		
IGED 270	Discovery Diversity	3
MATH 213	Discrete Math	3
CMOP 235/236	Intro to WebPage Development and HTML (Lecture + Lab)	3
CSCI 241	Data Structures	3
	Natural Science Elective (Lecture + Lab)	4
Sub – Total		16

Year 3: Semester 5		
IGED 280	Discovery Civics	3
MATH 225	Linear Algebra	3
CSCI 311/313	Computer Organization (Lecture + Lab)	4
CSCI 325	Organization of Programming Language	3
CSCI 341	Software Engineering	3
Sub – Total		16
Year 3: Semester 6		
MATH 381	Probability and Statistics	3
CSCI 351	Computer Networks	3
	CS Elective +	3
	CS Elective +	3
	Natural Science Elective (Lecture + Lab)	4
Sub – Total		16
Year 4: Semester 7		
CSCI 410	Theory of Computing	3
CSCI 412	Operating Systems	3
CSCI 415	Computer Architecture	3
CSCI 495	Senior Seminar	1
CSCI 498	Capstone Senior Project I	2
	Math/Science Elective	3
Sub – Total		15
Year 4: Semester 8		
CSCI 452	Database Systems Design	3
CSCI 499	Capstone Senior Project II	3
	CS Elective +	3
	CS Elective +	3
	CS Elective +	3
Sub – Total		15

\*If the student is not prepared to take Computer Science I (APCT 231/233). If the student is ready to take Computer Science I (APCT 231/233) without taking Intro to Programming (APCT 110/111), the student needs to take any elective course (3 credits) to meet the minimum requirements for graduation.



## Department of Computer Science & Information Technology

### Bachelor of Science Information Technology (BSIT)

#### Credit Statement:

The BS program in Science Information Technology requires completing a total of 123 credit hours of college-level courses in order to graduate.

#### Admission Statement

This major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the Bachelor of Science Information Technology (BSIT).

#### GPA statement

Students must obtain a grade of C or better in all the courses in their major and must have an overall grade point average of at least 2.0.

#### Course Requirements for the Major

##### General Education Requirements:

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 130	Foundation Oral Communications	3
IGED 140	Foundation of Ethics	3
IGED 210	Discovery Writing	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
MATH 116	Finite Mathematics ( <i>Satisfies IGED 120</i> )	3
MATH 215	Calculus for Business, Social and Life Sciences ( <i>Satisfies IGED 220</i> )	4
	Natural Science Elective (Lecture + Lab) ( <i>Satisfies IGED 260</i> )	4
	Natural Science Elective (Lecture + Lab)	4
APCT 115	Foundation of Computing ( <i>Satisfies IGED 250</i> )	3

##### Program Core Requirements:

MATH 185	Elementary Statistics I	3
BLPC 419	Law and the Computer	3
APCT 110	Intro to Programming Lecture	2
APCT 111	Intro to Programming Lab	1
APCT 115	Foundations of Computing	3
CMOP 131	Computer Networking Fundamentals Lecture	3
CMOP 132	Computer Networking Fundamentals Lab	1
APCT 231	Computer Science I Lecture	3
APCT 233	Computer Science I Lab	1
APCT 232	Computer Science II Lecture	3
APCT 234	Computer Science II Lab	1
CMOP 231	Wireless Local Area Networks Lecture	2
CMOP 232	Wireless Local Area Networks Lab	1
CMOP 235	Intro to Web Page Development and HTML Lecture	2
CMOP 236	Intro to Web Page Development and HTML Lab	1
CSCI 315	Unix and System Programming	3
CSCI 342	System & Network Administration	3
CSCI 345	Human Computer Interaction	3
CSCI 343	Database Administration	3
CSCI 353	Information Security	3
CSCI 441	Digital Forensics	3
CSCI 452	Database Systems Design	3
CSCI 495	Senior Seminar	1
CSCI 498	Capstone Senior Project I*	2
CSCI 499	Capstone Senior Project II*	3
PHIL 105	Intro to Logic	3
	Writing Intensive Course ( <i>Consult with your Faculty Advisor</i> )	

\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.

#### Approved Information Technology Electives

APCT 341	Advanced Web Development	3
CSCI 311	Computer Organization Lecture	3
CSCI 313	Computer Organization Lab	1
CSCI 317	Multimedia Programming & Design	3
CSCI 341	Software Engineering	3
CSCI 351	Computer Networks	3
CSCI 352	Network Security	3
CSCI 412	Operating Systems	3
CSCI 415	Computer Architecture	3
CSCI 451	Advanced Network Management	3
CSCI 453	Secure Software Engineering	3
CSCI 455	Cryptography	3
CSCI 490	Special Topics	3

All IT students need to choose their concentrations among the five concentrations listed below. Among them, the concentration option "Others" has been designed to provide an opportunity for choosing a concentrated area from another discipline. This would include, but not be limited to: Business Management, Multimedia, and Criminal Justice. Students are allowed to receive 7-10 credit hours from the chosen concentrated area. From this approach, students can build a broader career path.

#### BSIT Concentration:

- System & Database Management
- Web Design and Administration
- Network and Computer Systems
- Network Systems and Data Communications
- Other

##### System & Database Management ( 7 Credits)

CSCI 311	Computer Organization Lecture	3
CSCI 313	Computer Organization Lab	1
CSCI 412	Operating Systems	3

##### Web Design and Administration ( 9 Credits)

APCT 341	Advanced Web Development	3
CSCI 317	Multimedia Programming & Design	3
CSCI 351	Computer Networks	3

##### Network and Computer Systems ( 10 Credits)

CSCI 311	Computer Organization Lecture	3
CSCI 313	Computer Organization Lab	1
CSCI 351	Computer Networks	3
CSCI 415	Computer Architecture	3

##### Network Systems and Data Communications ( 9 Credits)

CSCI 351	Computer Networks	3
CSCI 451	Advanced Network Management	3
CSCI 352	Network Security	3

##### Others (9 credits)

Other concentrations include Business Management, Multimedia, and Criminal Justice. Students are allowed to take 3 courses (9 credits) from a chosen concentrated area in consultation with the student's Advisor and Chair.



## Department of Computer Science & Information Technology

### Bachelor of Science Information Technology (BSIT)

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

#### Bachelors of Science in Information Technology

Credit Hours: **123**

##### **Year 1: Semester 1**

IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 116	Finite Mathematics	3
APCT 110/111	Intro to Programming (Lecture + Lab)*	3
APCT 115	Foundations of Computing	3
Sub – Total		<b>15</b>

##### **Year 1: Semester 2**

IGED 111	Foundation Writing II	3
CMOP 131/132	Computer Networking Fundamentals (Lecture + Lab)	4
APCT 231/233	Computer Science I (Lecture + Lab)	4
PHIL 105	Intro to Logic	3
Sub – Total		<b>14</b>

##### **Year 2: Semester 3**

IGED 140	Foundation Ethics	3
IGED 210	Discovery Writing	3
MATH 185	Elementary Statistics I	3
APCT 232/234	Computer Science II (Lecture + Lab)	4
	Natural Science Elective (Lecture + Lab)	4
Sub – Total		<b>17</b>

##### **Year 2: Semester 4**

IGED 270	Discovery Diversity	3
MATH 215	Calculus for Business, Social and Life Sciences	4
CMOP 235/236	Intro to WebPage Development and HTML (Lecture + Lab)	3
CMOP 231/232	Wireless Local Area Networks (Lecture + Lab)	3
CSCI 241	Data Structures	3
	Natural Science Elective (Lecture + Lab)	4
Sub – Total		<b>20</b>

##### **Year 3: Semester 5**

IGED 280	Discovery Civics	3
CSCI 315	Unix and System Programming	3
CSCI 342	System & Network Administration	3
CSCI 345	Human Computer Interaction	3
	IT Elective +	3
Sub – Total		<b>15</b>

##### **Year 3: Semester 6**

CSCI 343	Database Administration	
CSCI 353	Information Security	
	IT Elective +	3
	IT Elective +	3
	IT Elective +	3
Sub – Total		<b>15</b>

##### **Year 4: Semester 7**

BLPC 419	The Law and the Computer	3
CSCI 495	Senior Seminar	1
CSCI 498	Capstone Senior Project I	2
	IT Elective +	3
	IT Elective +	3
	IT Elective +	3
Sub – Total		<b>15</b>

##### **Year 4: Semester 8**

CSCI 441	Digital Forensics	3
CSCI 452	Database Systems Design	3
CSCI 499	Capstone Senior Project II	3
	IT Elective +	3
	IT Elective +	3
Sub – Total		<b>15</b>

\* If the student is not prepared to take Computer Science I (APCT 231/233). If the student is ready to take Computer Science I (APCT 231/233) without taking Intro to Programming (APCT 110/111), the student needs to take any elective course (3 credits) to meet the minimum requirements for graduation.





## Department of Computer Science & Information Technology

### Master of Science in Computer Science (MSCS)

<http://csit.udc.edu/graduate.php>

The CSIT Department has a graduate program in computer science which leads to the Master of Science in Computer Science (MSCS) degree. The program is offered at the University of the District of Columbia's Van Ness (main) campus. The MSCS program is tailored to meet the needs of traditional domestic and international students as well as working professionals in the greater Washington DC area. The program emphasizes a practitioner-oriented curriculum which includes advanced algorithms, network security, artificial intelligence, computer graphics, image processing, software systems, and database. The program offers a thesis option and a non-thesis option.

**All students (US and international) must submit the following documents if they wish to be considered for admission into the MSCS Program:**

- Completed/signed application form
- Non-refundable application fee given in the application form
- Official transcripts from each college or university attended
- A 500-word statement about the applicant's academic and professional goals, research interests, relevant prior experience, motivation for graduate study in MSCS
- Graduate Record Examination (GRE) Basic test scores
- Two professional references

Please check the university website for detail at  
[http://www.udc.edu/admissions/graduate\\_students](http://www.udc.edu/admissions/graduate_students)

International students must also submit TOEFL [Test of English as a Foreign Language] scores and test scores on the advanced portion of the GRE [Graduate Record Examination] as part of their application. It is the policy of the graduate admissions committee in the CSIT department to carefully consider every applicant's previous academic and professional qualifications, test scores and achievements before an admission decision is made. Students admitted into the graduate program may start either in the fall semester or the spring semester.

Applicants accepted for graduate study will be informed in writing, at the time of admission, whether they need to enroll in background courses and/or prerequisites requiring completion before commencing their graduate studies. Each student admitted into the program will be assigned a graduate advisor and the student is responsible for discussing any special needs they may have with their adviser. Please note that, unless otherwise stipulated, every course in the MSCS program carries 3 credits.

### MSCS Graduation Requirements:

<http://csit.udc.edu/studentadvising.php>

In order to obtain the MSCS degree, students must successfully complete a minimum of 30 graduate credit hours (10 courses) in computer science with a grade of B or better in each of the courses. Students receiving grades lower than a B in any course will have to retake the course and obtain a grade of at least a B. Students must complete all program requirements within six years of their initial enrolment in the program.

The program offers two options as thesis and non-thesis. All students must take at least four graduate computer science (CS) core courses (12-cr hours). Students, who choose the thesis option, need to take four graduate CS electives (12-cr hours) and 6 thesis credit hours (counts as two graduate electives of CSCI 600). Students in the non-thesis option must take five graduate (15-cr hours) CS electives and one master's project course (CSCI 599 Master's Project).

Students in the thesis option must find a thesis advisor in the department based on their interests in order to comply with the thesis submission requirements of the UDC Graduate School. Students in the non-thesis option, but wishing to do a special project as part of their Master's program (CSCI-599), need to find a faculty member (project supervisor).

Qualified students with little education in Computer Science at the undergraduate level can be accepted into the program based on the graduate faculty's decision; however, such students must successfully complete a sequence of background or migration courses with a grade of B or better before they can enroll in the regular graduate CS courses. No credit will be given for these background courses toward the MSCS degree.

### Minimum Credit Hour Requirement: 30 in CS (10 courses)

Grade Requirement: B or better in each of the courses

Time Period Requirement: within 6 years from the first enrolment

Course Requirements:

4 core courses (12 credit hours) plus

4 elective courses (12 credit hours) and 6 thesis credits

(Thesis option)

or

6 elective courses (18 credit hours) (Non-Thesis option)

### List of Core Courses:

CSCI 504 Algorithm Design and Analysis

CSCI 505 Foundations of Computer Architecture

CSCI 506 Principles of Operating Systems

CSCI 507 Principles of Database Systems

CSCI 508 Principles of Data Communication Networks

CSCI 509 Foundations of Software Engineering

CSCI 510 Principles of Artificial Intelligence

### Graduate Writing Proficiency Requirement

Demonstrated proficiency in writing is required of all graduate students. Students must take the Graduate Record Examination (GRE) Analytical Writing Subtest as a requirement of admission. The minimal acceptable score is a 4.0. Students failing to meet the criterion score either retake GRE Analytical Writing Subtest or enroll in and pass (with a grade of B or better) the University's graduate writing proficiency course ENGL-515 prior to graduation.



## School of Engineering and Applied Sciences

### Department of Electrical and Computer Engineering

☎ 202. 274.7409

Welcome to the Department of Electrical and Computer Engineering at the University of the District of Columbia. This is the most opportune time to start your career as an electrical engineer or a computer engineer! The job market in these fields is great and growing; our graduates have received many strong offers from prominent companies like IBM, Northrop Grumman, Verizon, PEPCO and many other exciting and innovative technology, energy-related, and consulting businesses in the Washington Metropolitan area, around the US, and overseas. Many of our graduating seniors have been accepted to top graduate programs in electrical engineering, physics, mathematics, and medicine.

The Department strives for continuous improvement, and we continue to update the Department's undergraduate curriculum. The department has just instituted a new Master's Degree program in electrical engineering to better meet the needs of today's students and tomorrow's practicing engineers, as well as for students who want a strong technical background as preparation for a career in engineering.

ECE offers an ABET-accredited Bachelor of Science degree in Electrical Engineering with an option in computer engineering. It also offers a Master of Science degree program in Electrical Engineering (MSEE). The UDC-MAM program in electrical engineering in Egypt is not accredited by ABET.

Our department is a dynamic and growing community of scholars active in most of the principal areas of our field. Our faculty members are diverse and participate in many interdisciplinary initiatives. Faculty research interests include embedded systems, renewable energy, digital communications, medical image processing, material science and artificial intelligence. As you navigate through the department's web page, you will see why I am excited about the future of our department.

If you are a prospective undergraduate or graduate student in electrical engineering, please come visit us at the Van Ness Campus of UDC - we always have time to welcome new and talented students to our programs!

#### **Mission**

The mission of the Electrical and Computer Engineering Department is reflective to both the missions of the University of the District of Columbia and the mission of the School of Engineering and Applied Sciences. The EE Department is striving to provide educational opportunities that will prepare the students for effective and productive careers in the Electrical Engineering profession, for graduate-level studies, and for lifelong learning.

#### **Program's Educational Objectives**

The program educational objectives of the BS program in electrical engineering program are:

To provide graduates with a strong engineering background which enables them to enter the engineering workforce serving the Washington, D.C. metropolitan area and elsewhere;  
To provide graduates with an adequate background to pursue advanced engineering studies; and  
To produce graduates who are computer literate and proficient in written and oral communication and have an understanding of the ethical responsibilities of the engineering profession.

The first two objectives are reflective of the University's mission, which reads in part "These programs will prepare students for immediate entry into the workforce, for the next level of education, for specialized employment opportunities, and for lifelong learning." The third objective is consistent with the University's Goals, as stated in its current catalog, which include "Student Achievement: To set high standards for student achievement and to provide quality instruction and support services to enable students to meet those standards."

The most recent Program Educational Objectives are available on the program's webpage at:

[http://www.udc.edu/school\\_of\\_engineering\\_and\\_applied\\_sciences/departments/electrical\\_and\\_computer\\_engineering](http://www.udc.edu/school_of_engineering_and_applied_sciences/departments/electrical_and_computer_engineering)

#### **Program Outcomes**

Students graduating from the BS program electrical engineering are expected to acquire the following:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic environmental and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

#### **Undergraduate Program**

The department of Electrical and Computer Engineering has the following two undergraduate tracks identified as:

- Electrical Engineering without Computer Engineering Option
- [Electrical Engineering with Computer Engineering Option](#)

However, students who opt to pursue the computer engineering option, as well as those who do not, will receive the same degree identified as Bachelor of Science in Electrical Engineering (BSEE). The option consists of a concentration on advanced digital system design courses introducing such advanced design topics as VHDL and VLSI. Students who have opted to follow the electrical engineering with computer engineering option will have the stipulation, concentration in computer engineering on their transcript upon graduation.

The Department has contacts with various private and public employers for part-time employment and summer internships.

#### **DEPARTMENT OFFERINGS:**

##### **Bachelor Degrees:**

Bachelor of Science in Electrical Engineering (BSEE)

BSEE concentration offerings:

Electrical Engineering without Computer Engineering

[Electrical Engineering with Computer Engineering](#)

##### **Graduate Degree:**

Master of Science in Electrical Engineering (MSEE)



## Department of Electrical & Computer Engineering

### Bachelor of Science in Electrical Engineering (BSEE)

#### Credit Statement:

The BS program in Electrical Engineering requires completing a total of 128 credit hours of college-level course in order to graduate.

#### Admission Statement:

This major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the **BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (BSEE)**.

#### GPA Statement:

A grade of "C" or better is required in all ELEC (Electrical Engineering) courses.

#### Course Requirements for the Major

##### General Education Requirements:

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 210	Discovery Writing	3
IGED 130	Foundation Oral Communication	3
IGED 140	Foundation Ethics	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
MATH 151	Calculus I Lecture ( <i>Satisfies IGED 120</i> )	3
MATH 155	Calculus I Lab	1
MATH 152	Calculus II Lecture ( <i>Satisfies IGED 220</i> )	3
MATH 156	Calculus II Lab	1
CHEM 111	General Chemistry I Lecture ( <i>Satisfies IGED 260</i> )	3
CHEM 113	General Chemistry I Lab	1
APCT 231	Computer Science I Lecture ( <i>Satisfies IGED 250</i> )	3
APCT 233	Computer Science I Lab	1
ELEC 495	Capstone Senior Project I*	3
ELEC 496	Capstone Senior Project II*	3

\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.

##### Program Core Required Courses

CCEN 101	Introduction to Engineering	2
CHEM 111	General Chemistry I Lecture	3
CHEM 113	General Chemistry I Lab	1
MATH 151	Calculus I Lecture	3
MATH 155	Calculus I Lab	1
MATH 152	Calculus II Lecture	3
MATH 156	Calculus II Lab	1
MATH 260	Differential Equations with Linear Algebra	4
PHYS 201	University Physics I Lecture	3
PHYS 205	University Physics I Lab	1
PHYS 202	University Physics II Lecture	3
PHYS 206	University Physics II Lab	1
APCT 231	Computer Science I Lecture	3
APCT 233	Computer Science I Lab	1
ELEC 221	Electrical Circuits I Lecture	3
ELEC 223	Electrical Circuits I Lab	1
ELEC 222	Electrical Circuits II Lecture	3
ELEC 224	Electrical Circuits II Lab	1
ELEC 301	Engineering Mathematics	1
ELEC 311	Computer Organization I Lecture	3
ELEC 313	Computer Organization I Lab	1
ELEC 351	Electronics I Lecture	3
ELEC 353	Electronics I Lab	1

ELEC 312	Computer Organization II Lecture	3
ELEC 314	Computer Organization II Lab	1
ELEC 352	Electronics II Lecture	3
ELEC 354	Electronics II Lab	1
ELEC 307	Probability and Statistics for Engineers	3
ELEC 371	Signals and Systems Lecture	3
ELEC 374	Signals and Systems Lab	1
ELEC 467	Fundamentals of Communications Lecture	3
ELEC 476	Fundamentals of Communications Lab	1
MECH 406	Engineering Economics	3
ELEC 495	Capstone Senior Project I*	3
ELEC 496	Capstone Senior Project II*	3
	Writing Intensive Course	
	(Consult with your Faculty Advisor)	

\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.

##### CONCENTRATION OPTIONS:

###### Electrical Engineering (non-Computer Engineering Track)

Required courses in addition to the core courses for the non-computer engineering option track:

MECH 201	Engineering Mechanics I	3
PHYS 203	University Physics III Lecture	3
PHYS 207	University Physics III Lab	1
ELEC 356	Physical Electronics	3
ELEC 361	Electromagnetic Theory	3
ELEC 470	Control Systems & Applications Lecture	3
ELEC 477	Control Systems & Applications Lab	3
ELEC XXX*	Electrical Engineering Electives	13

###### Computer Engineering Option(track):

Required courses in addition to the required core courses for the computer engineering option track:

APCT 232	Intro to Computer Science II Lecture	3
APCT 234	Intro to Computer Science II Lab	1
CSCI 251	Assembler and Systems Lecture	3
CSCI 253	Assembler and Systems Lab	1
ELEC 478	Digital Integration Circuit Design Lecture	3
ELEC 479	Digital Integration Circuit Design Lab	1
ELEC 480	Digital System Design and Synthesis Lecture	3
ELEC 483	Digital System Design and Synthesis Lab	1
ELEC XXX*	Electrical Engineering Electives	3
CSCI XXX***	Computer Science Electives	3

(\*\*\*) To be selected from: Operating Systems, Digital Image Processing, Networking, and other approved by advisor.

##### \*Approved Electrical Engineering Electives

ELEC 458	Digital Signal Processing	3
ELEC 469/473	Digital Communications Systems Lecture / Lab	3/1
ELEC 470/477	Intro to Control Systems & Applications Lecture / Lab	3/1
ELEC 471	Digital Control Systems	3
ELEC 474	Advanced Topics in Electrical Engineering I	3
ELEC 461/462	Electrical Energy Conversion Lecture / Lab	3/1
ELEC 463	Energy Systems	3
MECH 473	Microelectromechanical Systems (MEMS)	3
MECH 478	Mechatronics	3
	Or equivalent	



## Department of Electrical & Computer Engineering

### Bachelor of Science in Electrical Engineering (General Option) (BSEE)

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

#### Bachelors of Science in Electrical Engineering (General Option)

Credit Hours: 128

##### Year 1: Semester 1

IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 151/155	Calculus I Lecture + Lab	4
CHEM 111/113	General Chemistry I Lecture + Lab	4
CCEN 101	Introduction to Engineering	2
Sub - Total		16

##### Year 1: Semester 2

IGED 111	Foundation Writing II	3
APCT 231/233	Computer Science I Lec+Lab	4
MATH 152/156	Calculus II Lecture + Lab	4
PHYS 201/205	University Physics I Lecture + Lab	4
Sub-Total		15

##### Year 2: Semester 3

IGED 210	Discovery Writing	3
PHYS 202/206	University Physics II Lecture + Lab	4
MECH 260	Engineering Mechanics I	3
ELEC 221/223	Electrical Circuits I Lec + Lab	4
Sub-Total		14

##### Year 2: Semester 4

IGED 140	Foundation Ethics and Values	3
PHYS 203/207	University Physics III Lecture + Lab	4
MATH 201	Differential Equations and Linear Algebra	4
ELEC 222/224	Electrical Circuits II Lecture + Lab	4
Sub-Total		15

##### Year 3: Semester 5

ELEC 301	Engineering Mathematics	3
ELEC 311/313	Computer Organization I Lecture + Lab	4
ELEC 351/353	Electronics I Lecture + Lab	4
ELEC 356	Physical Electronics	3
ELEC 361	Electromagnetic Theory I	3
Sub-Total		17

##### Year 3: Semester 6

ELEC 312/314	Computer Organization II Lecture + Lab	4
ELEC 361	Electromagnetic Theory	3
ELEC 352/354	Electronics II Lecture + Lab	4
ELEC 307	Probability & Statistics for Engineers	3
ELEC 371/374	Signals and Systems Lecture + Lab	4
Sub-Total		18

##### Year 4: Semester 7

ELEC 467/476	Fundamentals of Communication Lecture + Lab	4
ELEC 470/477	Control Systems & Applied Lecture/Lab	4
ELEC 495	Capstone Senior Project I	3
ELEC XXX	Electrical Engineering Elective	7
Sub-Total		18

##### Year 4: Semester 8

IGED 270	Discovery Diversity	3
ELEC 496	Capstone Senior Project II	3
MECH 406	Engineering Economics	3
ELEC XXX	Electrical Engineering Elective	6
Sub-Total		15



## Department of Electrical & Computer Engineering

### Bachelor of Science in Electrical Engineering - Computer Engineering

Credit Hours: 128

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 151/155	Calculus I Lecture + Lab	4
CHEM 111/113	General Chemistry I Lecture + Lab	4
CCEN 101	Introduction to Engineering	2
Sub - Total		16
Year 1: Semester 2		
IGED 111	Foundation Writing II	3
APCT 231/233	Computer Science I Lecture + Lab	4
MATH 152/156	Calculus II Lecture + Lab	4
PHYS 201/205	University Physics I Lecture + Lab	4
Sub-Total		15
Year 2: Semester 3		
IGED 210	Discovery Writing	3
MATH 213	Discrete Mathematics	3
PHYS 202/206	University Physics II Lecture + Lab	4
MECH 201	Engineering Mechanics I	3
ELEC 221/223	Electrical Circuits I Lecture + Lab	4
Sub-Total		17
Year 2: Semester 4		
IGED 140	Foundation Ethics	3
APCT 232/234	Computer Science II Lecture + Lab	4
MATH 260	Differential Equations and Linear Algebra	4
IGED 270	Discovery Diversity	3
ELEC 222/224	Electrical Circuits II Lecture + Lab	4
Sub-Total		18

Year 3: Semester 5		
ELEC 311/313	Computer Organization I Lecture + Lab	4
ELEC 351/353	Electronics I Lecture + Lab	4
ELEC 301	Engineering Mathematics	3
CSCI 251/253	Assemblers and Systems Lecture + Lab	4
Sub-Total		15
Year 3: Semester 6		
ELEC 312/314	Computer Organization II Lecture + Lab	4
ELEC 352/354	Electronics II Lecture + Lab	4
IGED 280	Discovery Civics	3
ELEC 307	Probability & Statistics for Engineers	3
ELEC 371/374	Signals and Systems Lecture + Lab	4
Sub-Total		15
Year 4: Semester 7		
Fundamentals of Communication Lecture + Lab		4
ELEC 467/476	Digital Integrated Circuits Lecture + Lab	4
ELEC 478/479	Digital System Design and Synthesis	3
ELEC 480/483	Capstone Senior Project I	3
ELEC 495	Electrical Engineering Elective	3
ELEC XXX		
Sub-Total		14
Year 4: Semester 8		
ELEC XXX	Electrical Engineering Electives	3
ELEC 496	Capstone Senior Project II	3
MECH 406	Engineering Economics	3
CSCI XXX	Computer Science Elective	4
Sub-Total		15



## Department of Electrical & Computer Engineering

### Master of Science Electrical Engineering

The department of Electrical and Computer Engineering at the University of the District of Columbia proposes the establishment of a Master of Science degree program in Electrical Engineering (MSEE).

The MSEE is designed to meet the needs of working professionals in the greater Washington DC metropolitan area and full-time graduate students. The MSEE offers a high-level graduate program with strong foundations in theory to: a) equip students with interdisciplinary skills required to grasp and develop new technologies and trends in the electrical engineering field; and b) prepare electrical engineers with the knowledge and tools needed to advance into leadership roles and to shape the future of this dynamic field.

The MSEE has the following two areas of emphasis:

- Communications and Signal Processing
- Digital Systems Engineering

The MSEE requires 30 credit hours of graduate-level course work. The program offers both thesis and non-thesis options. However, students who are supported as research assistants are required to pursue the thesis option.

#### ***MSEE Degree requirements***

The Master of Science in Electrical Engineering is designed to offer the students the opportunity to prepare for leadership roles in careers with industry, government, or educational institutions. The students enrolled in the M.S. Degree program in Electrical Engineering will have two different options to obtain their degree. They are:

#### ***Thesis option, and Non-thesis option***

A thesis option is offered for students who want the opportunity to obtain expertise in research and who may be interested in pursuing a doctoral degree in electrical engineering or computer engineering. A non-thesis option is offered for students who want a practical industrial applications-oriented degree. Thesis and project reports must be approved and signed by the graduate school.

#### ***MSEE General Requirements***

Maximum of two graduate-level course units may be transferred from another institution to apply toward the MSEE degree. Transferred courses must logically fit into the student's graduate program. The student's graduate advisor decides which courses are acceptable. The UDC approval of transfer credit may also be required. These two courses should not have been used in fulfillment of any other degree(s).

At least half of the coursework credits, excluding thesis or technical report credits, must be taken with other than a single professor.

Any coursework more than six years old at the time of the final examination will not be used to fulfill any of the MSEE degree requirements.

All graduate credits must have letter grades of A, B, or C, or pass/fail grades of S (Satisfactory). No More than two graduate courses with letter grade C will be accepted.

A minimum grade point average (GPA) of 3.0 is required to remain in good standing and to graduate.

#### ***Degree Requirements for the Thesis Option***

Plan of Study - the student must meet with his/her advisor to formulate a plan of study. The plan of study must be submitted to the student's advisory committee after completing at least 9 but no more than 18 semester credits.

Satisfactory completion of 30 hours of approved graduate credits including 6 hours of thesis.

At least 18 credits of course work, excluding thesis, must be at or above the 500 level. Courses below the 500 level must be approved by the student's advisory committee.

Admission to Candidacy - the admission to candidacy form must be completed prior to the thesis defense. The student should consult the schedule of classes for deadlines on submitting this form for spring graduation.

Thesis Defense - a copy of the thesis should be distributed to each member of the advisory committee and to the graduate school at least two weeks prior to the defense. The student should make a public announcement of the defense within the department to allow attendance by interested faculty, students, and the University Community.

Upon application for the thesis defense, students are required to submit a technical paper or abstract, based on some aspect of the thesis research, in a form suitable for submission to a regional technical conference.

#### ***Degree Requirements for the Non-Thesis Options***

Plan of Study - the student must meet with his/her advisor to formulate a plan of study. The plan of study must be submitted after completing at least 9 but no more than 18 semester credits.

Satisfactory completion of 30 hours of approved graduate credits.

At least 24 credits of course work must be at or above the 500 level. Courses below the 500 level must be approved by the student's advisory committee.

Satisfactory passing of a written comprehensive exam. Students can take the comprehensive exam after completing the core courses in their area of study.

A 3-credit project report based on a current practical industry-type problem may be substituted for the comprehensive exam.



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## Department of Electrical & Computer Engineering

### Master of Science Electrical Engineering

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#### Curriculum of the MSEE program

All MSEE students are required to take the following two core courses:

- ELEC-571 Linear systems
- ELEC-507 Probability and Random Processes

The course requirements for students majoring in the Communications and Signal Processing area are:

#### Take the following two core courses

- ELEC-458/558 Digital Signal Processing I
- ELEC-469/569 Digital Communications

Select the rest of the courses from Groups A and C of suggested and free elective courses.

Selected courses must be approved by the student's advisory committee.

**Project option** students must take ELEC-599 Master's Project that counts for 3 credit hours.

**Thesis option** students must take ELEC-699 Master's Thesis that counts for 6 credit hours.

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The course requirements for students majoring in the **Digital Systems Engineering** area are:

Take the following two core courses

- ELEC-559 Computer Architecture
- ELEC-584 Digital System-level Design

Select the rest of the courses from Groups A and C of suggested and free elective courses. Selected courses must be approved by the student's advisory committee.

**Project option** students must take ELEC-599 Master's Project that counts for 3 credit hours.

**Thesis option** students must take ELEC-699 Master's Thesis that counts for 6 credit hours.

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#### **Group A list of Suggested Elective Courses**

ELEC-455/555 Adaptive Filters  
ELEC-460/560 Digital Image Processing  
ELEC-468/568 Wireless Communications  
ELEC-469/569 Digital Communications I  
ELEC-478/578 Digital Integrated Circuit Design  
ELEC-479/579 Digital Integrated Circuit Design Laboratory  
ELEC-480/580 Introduction to Computer-Aided Digital Design  
ELEC-483/583 Introduction to Computer Aided Digital Design Lab  
ELEC-559 Computer Architecture  
ELEC-574 Digital Information Theory  
ELEC-575 Wireless Networks  
ELEC-584 Digital System-level Design  
ELEC-585 Design of a System on a Chip (SoC)  
ELEC-586 Advanced Embedded System design  
ELEC-658 Digital Signal Processing II  
ELEC-659 Advanced Computer Architecture  
ELEC-665 Multimedia Communications  
ELEC-669 Digital Communications II  
ELEC-673 Coding Theory and Applications  
ELEC-678 Advanced Digital Integrated Circuit Design  
ELEC-692 Advanced Topics in Signal and Image Processing  
ELEC-693 Advanced Topics in Digital Communications  
ELEC-599 Master's Project (3 credit hours)  
ELEC-699 Master's Thesis (6 credit hours)

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#### **Group B list of Suggested Elective Courses**

ELEC-455/555 Adaptive Filters  
ELEC-458/558 Digital Signal Processing I  
ELEC-460/560 Digital Image Processing  
ELEC-468/568 Wireless Communications  
ELEC-469/569 Digital Communications  
ELEC-478/578 Digital Integrated Circuit Design  
ELEC-479/579 Digital Integrated Circuit Design Laboratory  
ELEC-480/580 Introduction to Computer-Aided Digital Design  
ELEC-483/583 Introduction to Computer Aided Digital Design Lab  
ELEC-574 Digital Information Theory  
ELEC-575 Wireless Networks  
ELEC-585 Design of a System on a Chip (SoC)  
ELEC-586 Advanced Embedded System design  
ELEC-592 Advanced Topics in Signal and Image Processing  
ELEC-658 Digital Signal Processing II  
ELEC-659 Advanced Computer Architecture  
ELEC-665 Multimedia Communications  
ELEC-669 Digital Communications  
ELEC-673 Coding Theory and Applications  
ELEC-678 Advanced Digital Integrated Circuit Design  
ELEC-693 Advanced Topics in Digital Communications  
ELEC-599 Master's Project (3 credit hours)  
ELEC-699 Master's Thesis (6 credit hours)

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#### **Group C (Free Electives)**

Courses in computer science, mathematics, or any other related courses that the student's advisory committee approves. Selected courses must logically fit within the student's plan of study.



## School of Engineering and Applied Sciences

### Department of Civil and Mechanical Engineering

☎ 202.274.5126

The Department of Civil and Mechanical Engineering houses two programs – Civil Engineering and Mechanical Engineering and focuses on primarily on two broad areas of instruction and research.

#### Department Offerings

##### Bachelor Degrees:

Bachelor of Science in Civil Engineering (BSCE)

Bachelor of Science in Mechanical Engineering (BSME)

##### Mission

The mission of the department is to provide students with a technical foundation based on theory and practical aspects of engineering such that they can follow diverse career paths including professional engineering, advanced graduate study or entrepreneurship. Our department's program objectives and outcomes are consistent with the mission of the School of Engineering and Applied Sciences and the University, which is to provide nationally competitive and fully accredited professional programs at the certificate, associate, baccalaureate, and graduate levels.

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

Civil engineering is the oldest branch of the profession of engineering that deals with planning, design, construction and maintenance of the built environment on which society depends. Many of the life sustaining important things in our lives are the product of civil engineering. There are two broad types of civil engineer leaders: those who work in creating visible infrastructures such as buildings, highways, bridges, airports, ports, waterways, and dams; and those who work behind the scenes such as in building foundations, water treatment plants, water supply pipe systems, ecological restoration and underground drainage systems.

The program for the Bachelor of Science in Civil Engineering offers four major areas of concentration: water resources engineering; construction; geotechnical; transportation and structural engineering. The Civil Engineering Program is accredited by the Engineering Accrediting Commission (EAC) of ABET.

The objective of the Civil Engineering Program is to prepare students for engineering careers and/or advanced study in civil engineering and to offer research and service programs for the general public. Civil engineers have responsibility for designing various structures, including bridges, highways, and infrastructure facilities. The program places special emphasis on solving problems in urban areas, particularly in the Washington, D.C. metropolitan area. Civil engineers are employed in both industry and governmental agencies. The demand is significantly higher than the number of graduates.

The expertise of the civil engineering faculty, combined with their dedication to quality of instruction, their willingness to provide individual attention to students, and their experience provide the basis for a solid fundamental engineering education.

#### Program Educational Objectives

In accordance with ABET accreditation criteria and pursuant to the University's mission statement, the following program educational objectives have been established:

- Prepare graduates with problem solving skills and knowledge necessary for immediate employment in related fields of civil engineering,
- Prepare graduates with a capacity to pursue graduate studies in civil engineering or related fields,

- Prepare graduates with requisite skills to successfully undertake the Fundamentals of Engineering (FE) examination and subsequent licensure as a professional engineer (PE), and
- Prepare graduates with an ability and capacity to pursue lifelong learning with a creative desire and potential for career growth and development. Prepare graduates as well-rounded engineers who become valuable member of the society at-large with good understanding of social, ethical, technical, environmental and global-context issues and have effective communication skills.

**The most recent Program Educational Objectives are available on the program's webpage at:**

[http://www.udc.edu/school\\_of\\_engineering\\_and\\_applied\\_sciences/civil\\_engineering](http://www.udc.edu/school_of_engineering_and_applied_sciences/civil_engineering)

#### Program Outcomes

Students graduating from the civil engineering program are expected to acquire the following:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic environmental and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- In addition to these ABET-inspired outcomes, the following outcomes have been developed based on the stipulated program criteria applicable to civil engineering program:
  - CE (a) An ability to apply fundamentals of probability and statistics in the analysis and design of civil engineering systems, and
  - CE (b) Faculty members responsible for the upper-level professional program are maintaining currency in their specialty area.

#### Credit Statement:

The BS program in Civil Engineering requires completing a total of 128 credit hours of college-level courses in order to graduate.

#### Admission Statement:

The major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the **BACHELOR OF SCIENCE IN CIVIL ENGINEERING (BSCE)**.

#### GPA Statement:

All technical electives must have prior departmental approval. A minimum grade of "C" is required for each major course. A grade point average of 2.00 is required in major courses. Students are strongly encouraged to take the Fundamental of Engineering (FE) examination prior to graduation.





## Department of Civil and Mechanical Engineering

### Bachelor of Science in Civil Engineering

#### Course Requirements for the Major

##### General Education Requirements:

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 210	Discovery Writing	3
IGED 130	Foundation Oral Communication	3
IGED 140	Foundation Ethics	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
MATH 151	Calculus I Lecture ( <i>Satisfies IGED 120</i> )	3
MATH 155	Calculus I Lab	1
MATH 152	Calculus II Lecture ( <i>Satisfies IGED 220</i> )	3
MATH 156	Calculus II Lab	1
CHEM 111	General Chemistry I Lecture ( <i>Satisfies IGED 260</i> )	3
CHEM 113	General Chemistry I Lab	1
CSCI 135	Scientific Programming ( <i>Satisfies IGED 250</i> )	3
CVEN 491	Civil Engineering Senior Project I*	3
CVEN 492	Civil Engineering Senior Project II*	3

\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.

##### Program Required Courses:

CCEN 101	Introduction to Engineering	2
CHEM 111	General Chemistry I Lecture	3
CHEM 113	General Chemistry I Lab	1
MATH 151	Calculus I Lecture	3
MATH 155	Calculus I Lab	1
MATH 152	Calculus II Lecture	3
MATH 156	Calculus II Lab	1
MATH 254	Differential Equation	3
MATH 381	Probability and Statistics	3
PHYS 201	University Physics I Lecture	3
PHYS 205	University Physics I Lab	1
PHYS 202	University Physics II Lecture	3
PHYS 206	University Physics II Lab	1
CSCI 135	Scientific Programming	3
MECH 105	Computer Aided Graphics	3
MECH 208	Thermodynamics	3
MECH 406	Engineering Economics	3
CVEN 201	Engineering Mechanics I	3
CVEN 202	Engineering Mechanics II	3
CVEN 206	Mechanics of Solids Lecture	3
CVEN 208	Mechanics of Solids Lab	1
CVEN 308	Applied Numerical Analysis	3
CVEN 311	Theory of Structure Lecture	3
CVEN 313	Theory of Structure Lab	1
CVEN 312	Design of Steel Structure	3
CVEN 325	Hydrology & Hydraulics Lecture	3
CVEN 327	Hydrology & Hydraulics Lab	1
CVEN 331	Geotechnical Engineering Lecture	3
CVEN 332	Geotechnical Engineering Lab	1
CVEN 352	Civil Engineering Materials Lecture	3
CVEN 354	Civil Engineering Materials Lab	1
CVEN 435	Foundation Design	3
CVEN 442	Water Resources Engineering	3
CVEN 452	Civil Engineering Technical Elective (Transportation)	3

CVEN 475	Planning and Scheduling	3
CVEN 476	Construction Project Management	3
CVEN 481	FE Preparation	1
CVEN 491	Civil Engineering Senior Project I*	3
CVEN 492	Civil Engineering Senior Project II*	3

##### Natural Science Elective

CVEN	Civil Engineering Technical Elective (Transportation)	3
CVEN	Civil Engineering Technical Elective	3

Writing Intensive Course (*Consult with your Faculty Advisor*)

\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.

##### Sub-Disciplines for Civil Engineering

Successful completion of a two-course sequence in at least (4) four sub-disciplines of Civil Engineering are required for a degree in Civil Engineering. Selection of the course sequences must be made from the following list:

##### Sub-Discipline: Structure

Course Sequence I	CVEN 311: Theory of Structures
Course Sequence II	CVEN 312: Design of Steel Structures (or) CVEN 419: Design of Concrete Structures

##### Sub-Discipline: Geotechnical

Course Sequence I	CVEN 331: Principles of Geotechnical Engineering
Course Sequence II	CVEN 435: Foundation Design

##### Sub-Discipline: Construction

Course Sequence I	CVEN 475: Project Planning and Scheduling
Course Sequence II	CVEN 476: Construction Project Management

##### Sub-Discipline: Water Resources and Hydrology

Course Sequence I	CVEN 325: Hydraulics & Hydrology
Course Sequence II	CVEN 442: Water Resource Engineering (or) CVEN 441: Waste Water Engineering

The Department Chair may approve other acceptable two-course sequences to meet an individual student's career objectives.

##### Approved Civil Engineering Technical Electives

CVEN 419	Design of Concrete Structures	3
CVEN 451	Urban Transportation Planning	3
CVEN 452	Urban Transportation System Design	3
CVEN 417	Matrix Method of Structural Analysis	3
CVEN 418	Dynamics of Structure	3
CVEN 449	Environmental Engineering	3
CVEN 486	Estimating	3
CVEN 475	Planning & Scheduling	3
CVEN 236	Design of Wood Structures	3
CVEN 162	Construction Materials I	
CVEN 263	Construction Materials II	
CVEN 384	Construction Equipment & Safety	
CVEN 487	Contracts & Specifications	3
CVEN 124	Construction Plan Reading	



## Department of Civil and Mechanical Engineering

### Bachelor of Science in Civil Engineering

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

#### ***Bachelors of Science in Civil Engineering (BSCE)***

*Credit Hours: 128*

##### **Year 1: Semester 1**

IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 151/155	Calculus I Lecture + Lab	4
CHEM 111/113	General Chemistry I Lecture + Lab	4
CCEN 101	Introduction to Engineering	2
Sub - Total		<b>16</b>

##### **Year 1: Semester 2**

IGED 111	Foundation Writing II	3
MATH 152/156	Calculus II Lecture + Lab	4
PHYS 201/205	University Physics I Lecture + Lab	4
MECH 105	Engineering Graphics	3
IGED 140	Foundation Ethics	3
Sub-Total		<b>17</b>

##### **Year 2: Semester 3**

IGED 210	Discovery Writing	3
CSCI 135	Scientific Programming Lecture + Lab	3
MATH 254	Differential Equations	3
CVEN 201	Engineering Mechanics I	3
PHYS 202/206	University Physics II Lecture + Lab	4
Sub-Total		<b>16</b>

##### **Year 2: Semester 4**

IGED 270	Discovery Diversity	3
IGED 260	Science Elective	4
MECH 208	Thermodynamics	3
CVEN 202	Engineering Mechanics II	3
CVEN 206/208	Mechanics of Solids Lecture + Lab	4
Sub-Total		<b>17</b>

##### **Year 3: Semester 5**

IGED 280	Discovery Civics	3
MECH 406	Engineering Economics	3
CVEN 311/313	Theory of Structure Lecture + Lab	4
CVEN 325/327	Hydrology & Hydraulics Lecture + Lab	4
CVEN XXX	Civil Engineering Elective(Transportation)	3
Sub-Total		<b>17</b>

##### **Year 3: Semester 6**

CVEN 352/354	Civil Engineering Materials Lecture + Lab	4
CVEN 312	Design of Steel Structures	3
CVEN 342	Water Resource Engineering	3
CVEN 308	Applied Numerical Analysis	3
CVEN XXX	Civil Engineering Elective (Transportation)	3
Sub-Total		<b>16</b>

##### **Year 4: Semester 7**

CVEN 331/332	Geotechnical Engineering Lecture + Lab	4
CVEN 475	Planning and Scheduling	3
CVEN 481	FE Exam Preparation	1
CVEN 491	Capstone CE Senior Project I	3
CVEN XXX	Civil Engineering Technical Elective	3
Sub-Total		<b>14</b>

##### **Year 4: Semester 8**

MATH 381	Probability and Statistics	3
CVEN 435	Foundation Design	3
CVEN 476	Construction Project Management	3
CVEN 492	Capstone CE Senior Project II	3
CVEN XXX	Civil Engineering Technical Elective	3
Sub-Total		<b>15</b>



## Department of Civil and Mechanical Engineering

### Bachelors of Science Mechanical Engineering

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The primary objectives of the Mechanical Engineering Program are to provide residents of the District of Columbia in particular and others in general a coherent program of instruction in the discipline of mechanical engineering and to prepare the graduates to pursue a productive career in mechanical engineering, which is characterized by continued professional growth. The BS degree program in mechanical engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET. The UDC-MAM program in mechanical engineering in Egypt is not accredited by ABET.

These objectives are met by providing students with a balanced curriculum in mathematics, sciences, social sciences, and humanities on one hand and engineering sciences, design, experimentation, computer skills, and ethical standards on the other hand. A competent, qualified and forward-looking faculty serves the students in the program as an appropriate role model.

Ancillary objectives of the program are to provide research, professional consultation, and community services in the areas of thermal and fluid sciences, energy, mechanical systems, materials and manufacturing processes, and computer applications.

At the conclusion of the required program of study, students are awarded the Bachelor of Science degree in Mechanical Engineering. Opportunities for employment for mechanical engineers exist in both the public and private sectors.

In accordance with ABET accreditation criteria and pursuant to the University's mission statement, the following program educational objectives have been established:

- Prepare graduates for immediate employment in related fields of mechanical engineering
- Prepare graduates with a capacity to pursue graduate studies in mechanical engineering or related fields.
- Prepare graduates with requisite skills to successfully undertake the Fundamentals of Engineering (FE) examination and subsequent licensure as a professional engineer (PE).
- Prepare graduates with an ability and capacity to pursue lifelong learning with a creative desire and potential for career growth and development.

The most recent Program Educational Objectives are available on the program's webpage at:

[http://www.udc.edu/school\\_of\\_engineering\\_and\\_applied\\_sciences/mechanical\\_engineering\\_program](http://www.udc.edu/school_of_engineering_and_applied_sciences/mechanical_engineering_program)

#### *Program Outcomes*

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- Students graduating from the Mechanical Engineering program are expected to acquire the following:
- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments as well as to analyze and interpret data
- An ability to design a system, component or process to meet desired needs
- An ability to function on multi-disciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of the professional and ethical responsibility of an engineer
- An ability to communicate effectively through the use of written reports and oral presentations
- The broad education necessary to understand the impact of engineering solutions in a global and societal context
- A recognition of the need for, and an ability to engage in life-long learning
- A knowledge of contemporary issues in engineering
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

In addition to these ABET-inspired outcomes, the following outcomes have been developed based on the stipulated program criteria applicable to mechanical engineering program:

- ME (a) An ability to apply principles of engineering, basic science, and mathematics (including multivariate calculus and differential equations) to model, analyze, design, and realize physical systems, components or processes; and work professionally in both thermal and mechanical systems areas.
- ME (b) Faculty members responsible for the upper-level professional program are maintaining currency in their specialty areas.

#### **Credit Statement:**

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The BS program in Mechanical Engineering requires completing a total of 128 credit hours of college-level courses in order to graduate.

#### **Admission Statement**

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This major is an unrestricted major, and any student eligible for admission to the University is eligible to declare the **BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (BSME)**

#### **GPA statement**

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All technical electives must have prior departmental approval. A grade point of 2.00 is required in major courses.



## Department of Civil and Mechanical Engineering

### Bachelors of Science Mechanical Engineering

#### Course Requirements for the Major

##### General Education Requirements:

IGED 110	Foundation Writing I	3
IGED 111	Foundation Writing II	3
IGED 210	Discovery Writing	3
IGED 130	Foundation Oral Communication	3
IGED 140	Foundation Ethics	3
IGED 270	Discovery Diversity	3
IGED 280	Discovery Civics	3
MATH 151	Calculus I Lecture ( <i>Satisfies IGED 120</i> )	3
MATH 155	Calculus I Lab	1
MATH 152	Calculus II Lecture ( <i>Satisfies IGED 220</i> )	3
MATH 156	Calculus II Lab	1
CHEM 111	General Chemistry I Lecture ( <i>Satisfies IGED 260</i> )	3
CHEM 113	General Chemistry I Lab	1
CSCI 135	Scientific Programming ( <i>Satisfies IGED 250</i> )	3
MECH 491	Capstone Senior Design Project I*	3
MECH 492	Capstone Senior Design Project II*	3

*\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.*

##### Required Core Courses:

CCEN 101	Introduction to Engineering	2
CHEM 111	General Chemistry I Lecture	3
CHEM 113	General Chemistry I Lab	1
MATH 151	Calculus I Lecture	3
MATH 155	Calculus I Lab	1
MATH 152	Calculus II Lecture	3
MATH 156	Calculus II Lab	1
MATH 253	Calculus III Lecture	3
MATH 255	Calculus III Lab	1
MATH 254	Differential Equation	3
MATH 381	Probability and Statistics	3
PHYS 201	University Physics I Lecture	3
PHYS 205	University Physics I Lab	1
PHYS 202	University Physics II Lecture	3
PHYS 206	University Physics II Lab	1
CSCI 135	Scientific Programming	3
ELEC 221	Electric Circuits I Lecture	3
ELEC 223	Electric Circuits I Lab	1
MECH 105	Computer Aided Graphics	3
MECH 205	Material Science	3
MECH 208	Thermodynamics	3
MECH 222	Engineering Measurements Lecture	3
MECH 224	Engineering Measurements Lab	1
MECH 321	Fluid Mechanics Lecture	3
MECH 322	Thermodynamics/Fluids Lab	1
MECH 341	Analysis & Synthesis of Mechanisms	3
MECH 351	Heat Transfer	3
MECH 361	Machine Design	3
MECH 371	Design of Control Systems Lecture	3
MECH 373	Design of Control Systems Lab	1
MECH 381	Microcontrollers in Mechanical Engineering	3
MECH 406	Engineering Economics	3
MECH 462	Design of Energy Systems	3
MECH 491	Capstone Senior Design Project I*	3
MECH 492	Capstone Senior Design Project II*	3
CVEN 201	Engineering Mechanics I	3

C VEN 202	Engineering Mechanics II	3
CVEN 206	Mechanics of Solids Lecture	3
CVEN 208	Mechanics of Solids Lab	1
CVEN 308	Applied Numeral Analysis	3
CVEN 481	FE Preparation	1
MECH	Mechanical Engineering Elective	3
MECH	Mechanical Engineering Elective	3
MECH	Mechanical Engineering Elective	3

Writing Intensive Course (*Consult with your Faculty Advisor*)

*\*This capstone course is expected to satisfy the requirements of the general education "Frontier Capstone" courses.*

##### Technical Electives

A minimum of nine credit hours of technical elective courses must be taken from the following courses. The electives should be planned to include courses supplementing the basic needs and interests of the student.

MECH 356	Modern Manufacturing Process	3
MECH 455	Mechanical Behavior of Materials	3
MECH 456	Computational Mechanics	3
MECH 457	Design of Noise Controls	3
MECH 458	Finite Element Methods for Mechanical Engineering	3
MECH 461	Applied Thermodynamics & Energy Conversion	3
MECH 462	Design of Energy Systems	3
MECH 470	Thermal Environmental Engineering	3
MECH 473	Microelectromechanical Systems (MEMS)	3
MECH 475	Gas Turbine Design	3
MECH 476	HVAC Design	3
MECH 481	Mechatronics	3
MECH 483	Robot Mechanics and Control	3
MECH 484	Design of Robot Mechanisms	3
MECH 356	Modern Manufacturing Process	3
MECH 455	Mechanical Behavior of Materials	3
MECH 487	Photovoltaic Cells and Solar Thermal Energy Systems	3
MECH 488	Fuel Cell Fundamentals and Technologies	3



## Department of Civil and Mechanical Engineering

### Bachelors of Science Mechanical Engineering

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

#### Bachelors of Science in Mechanical Engineering

Credit Hours: 128

##### Year 1: Semester 1

IGED 110	Foundation Writing I	3
IGED 130	Foundation Oral Communication	3
MATH 151/155	Calculus I Lecture + Lab	4
CHEM 111/113	General Chemistry I Lecture + Lab	4
CCEN 101	Introduction to Engineering	2
Sub - Total		16

##### Year 1: Semester 2

IGED 111	Foundation Writing II	3
IGED 140	Foundation Ethics	3
MATH 152/156	Calculus II Lecture + Lab	4
PHYS 201/205	University Physics I Lecture + Lab	4
MECH 105	Engineering Graphics	3
Sub-Total		17

##### Year 2: Semester 3

ELEC 221/223	Electrical Circuits I Lecture + Lab	4
CSCI 135	Scientific Programming	3
PHYS 202/206	University Physics II Lecture + Lab	4
MATH 253/255	Calculus III Lecture + Lab	4
CVEN 201	Engineering Mechanics I	3
Sub-Total		18

##### Year 2: Semester 4

MECH 222/223	Engineering Measurements Lecture + Lab	4
MATH 254	Differential Equations	3
MECH 208	Thermodynamics	3
CVEN 202	Engineering Mechanics II	3
CVEN 206/207	Mechanics of Solids Lecture + Lab	4
Sub-Total		17

##### Year 3: Semester 5

IGED 210	Discovery Writing	3
MECH 381	Microcontrollers in Mechanical Engineering	3
MECH 205	Material Science	3
MECH 341	Analysis and Synthesis of Mechanisms	3
MECH 321/322	Thermodynamics of Fluids Lecture + Lab	4
Sub-Total		16

##### Year 3: Semester 6

IGED 270	Discovery Diversity	3
CVEN 308	Applied Numerical Analysis	3
MECH 351	Heat Transfer	3
MECH 361	Machine Design	3
MECH 371/373	Design of Controls Systems Lecture + Lab	4
Sub-Total		16

##### Year 4: Semester 7

IGED 280	Discovery Civics	3
MATH 381	Probability and Statistics	3
MECH 406	Engineering Economics	3
MECH XXX	Mechanical Eng. Technical Electives	3
MECH 491	Capstone Senior Design Project I	3
CVEN 481	FE Preparation	1
Sub-Total		16

##### Year 4: Semester 8

MECH 462	Design of Energy Systems	3
MECH 492	Capstone Senior Design Project II	3
MECH XXX	Mechanical Engineering Elective	3
MECH XXX	Mechanical Engineering Elective	3
Sub-Total		12



## School of Business and Public Administration (SBPA)

☎ 202.274.7000

The School of Business and Public Administration (SBPA)--through its notable faculty, rigorous academics and experiential learning--helps its students acquire the capabilities, innovative thinking and skills they need to make their mark in business, government non-profit and social enterprises. The School is devoted to the pursuit of professional knowledge and the search for solutions to the myriad problems besetting our urban community, the nation, and the world.

The mission of the School of Business and Public Administration is to prepare future leaders for local, national, and international organizations. Thus, the School prepares students to think critically, analytically, and creatively about real-world solutions to complex issues that challenge today's organizations. The School also encourages students to work with others in interdisciplinary pursuits to develop collegial and professional skill sets. In addition, the programs reflect the School's awareness that the business community requires individuals who are intellectually and technically competent. The School is committed to matriculating business, government and non-profit practitioners who are proficient at comprehending the magnitude of challenges, at synthesizing the dynamics of their environment and at crafting viable strategies.

The School is organized into three departments -- Accounting, Finance and Economics; Management, Marketing and Management Information Systems; and Public Administration -- that offer the following programs: Bachelor of Business Administration in Accounting, Bachelor of Business Administration in Finance, Bachelor of Business Administration in Management, Bachelor of Business Administration in Marketing and Bachelor of Business Administration in Management Information Systems, Bachelor of Business in Administration in Procurement & Public Contracting, Bachelor of Arts in Economics, Master of Business Administration and Master of Public Administration. Additionally, there are two certificate programs in Procurement & Public Contracting and Entrepreneurship. SBPA provides its students with individualized student services and career counseling.

### Department of Accounting, Finance and Economics

#### Department Mission:

The mission of the Department of Accounting, Finance and Economics is to offer programs that prepare students for careers in their chosen areas of specialization and to equip them with the knowledge and skills that will help them meet the challenges they may face in the public, private, or industrial sectors. In addition to the development of competency in their particular fields of study, students acquire a broad background in general business subjects.

#### Department Description:

The Department of Accounting, Finance and Economics offers courses leading to the Bachelor of Business Administration degrees in Accounting or Finance, and the Bachelor of Arts degree in Economics. The Master of Business Administration degree may be attained by students who already hold baccalaureate degrees and wish to pursue advanced studies.

All programs offered by the Department seek to improve students' oral, written, and presentational skills, thereby enhancing their opportunities for employment and graduate studies. The

Department also encourages students to take part in organizations that will develop student leadership and teamwork skills. These organizations include the Omicron Delta Epsilon International Honor Society for Economics (ODE), Business Finance Association, the Accounting Club, and a student chapter of the National Association of Black Accountants (NABA).

#### Accounting, Finance and Economics:

##### Bachelor Degrees:

Bachelor of Business Administration (BBA) in Accounting

Bachelor of Arts (BA) in Economics

Bachelor of Business Administration (BBA) in Finance

##### Graduate Degrees:

Master of Business Administration (MBA)

#### Accreditation and Associations:

All the programs in the Department of Accounting, Finance and Economics, except for Economics, are accredited by the Accreditation Council for Business Schools and Programs (ACBSP).

#### Student Organizations

- Business Finance Association
- Honor Society
- Delta Mu Delta
- Omicron Delta Epsilon International Honor Society for Economics (ODE)
- Accounting Club
- National Association of Black Accountants (NABA) – student chapter
- Business Finance Club

#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### Additional Comments

All current and prospective undergraduate students are encouraged to visit or call the Academic Department for curricular information and advising assistance. Academic worksheets and general information are available on the university's website, [www.udc.edu/sbpa](http://www.udc.edu/sbpa).



## Department of Accounting, Finance and Economics

### Bachelor of Business Administration in Accounting

The Accounting program provides students with the knowledge and skills required by the twenty-first century accounting industry. Additionally, the Finance program combines a broadly conceived professional curriculum with a business core education. The Economics program increases economic literacy about how economic systems produce, distribute, and allocate resources; develop an understanding of contemporary national and international economic events; develop competencies in analyzing urban problems, particularly those related to employment, housing, and the economic conditions of African Americans and other minorities; develop capacities of students to do independent analysis, research, and field work; and establish theoretical and analytical tools necessary for graduate study in economics and other fields such as law or business.

Students attend courses, seminars and gain hands-on experiences with current applicable accounting software that will acquaint them with the latest concepts in accounting. Internships can be sought in SBPA's Career Services Office.

Students majoring in Accounting are required to complete 126 (see last asterisk credit hours for graduation, of which 33 credits in major requirements, 56 credit hours are ancillary requirements (including the Business Core), 34 credits are in general education courses, and 3 credits in an elective.

Students who already have a bachelor's degree in Accounting and want to sit for the uniform certified public accountant (CPA) examination may structure their course work in order to sit for the examination and receive the M.B.A. degree.

#### Credit Statement

The BBA program in Accounting requires completing a total of 126 credit hours for graduation, of which 33 credits are in major requirements, 56 credit hours are ancillary requirements (including the Business Core), 34 credits are in general education courses, and 3 credits in an elective.

#### Admission Statement

Accounting, Finance, and Economics are unrestricted majors, and any student eligible for admission to the University is eligible to declare them.

#### GPA statement

Students must earn a minimum grade of "C" in all business courses and earn a cumulative GPA of 2.0 in order to remain in good standing.

#### Transfer Requirements

Transfer students must earn a minimum of 12 credits of Accounting at UDC.

#### Residency Statement

The last 30 hours must be completed in residence. This includes courses taken through the consortium.

#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### Course Requirements

##### Required General Education Courses (34 Credits\*)

IGED 110 Foundation Writing I (3)  
IGED 120 Foundation Quantitative Reasoning (3)\*  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Quantitative Reasoning (3)\*  
IGED 140 Foundation Ethics (3)  
IGED 250\*\* Discovery Technology (3)\*\*  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1.5)  
IGED 392 Frontier Capstone II(1.5)

*\* For Accounting Majors, MATH 105 Intermediate Algebra replaces IGED 120 Foundation Quantitative Reasoning I & IGED 220 Quantitative Reasoning II.*

*\*\*For Accounting Majors, MGIS 120 Computer Applications in Business replaces IGED 250 Discovery Technology*

##### Required Accounting (30 credits)

ACCT 201 Principles of Accounting I (3)  
ACCT 202 Principles of Accounting II (3)  
ACCT 301 Intermediate Accounting I (3)  
ACCT 302 Intermediate Accounting II (3)  
ACCT 312 Federal Income Tax (3)  
ACCT 325 Cost Accounting (3)  
ACCT 401 Auditing I (3)  
ACCT 402 Auditing II (3)  
ACCT 404 Advanced Accounting (3)  
ACCT 407 Accounting Information Systems (3)  
Required Ancillary Courses (56 credits)  
ORIN 101 Freshman Orientation (1)  
MGIS 402 Management Information Systems (3)  
MGIS 120 Computer Applications in Business (3)  
ECON 201 Principles of Macroeconomics (3)  
ECON 202 Principles of Microeconomics (3)  
BGMT 104 Introduction to Business (3)  
BGMT 208 Business Communications (3)  
BGMT 304 Introduction to Management (3)  
BGMT 409 Organizational Theory & Behavior (3)  
BGMT 414 Production Management (3)  
BGMT 419 Business Policy and Strategy (3)\*\*\*  
BLAW 214 Legal Environment of Business (3)  
BLAW 318 Commercial Law (3)  
BSEF 220 Business Statistics (3)  
BSEF 223 Quantitative Business Techniques (3)  
BSEF 314 Business Finance (3)  
MATH 116 Finite Math (3)  
MATH 215 Calculus for Business, Social and Life Sciences (4)\*\*\*\*  
MKTG 304 Introduction to Marketing Management (3)  
PSYC 201 Principles of Psychology (3)

*\*\*\*Last semester only*

*\*\*\*\*Calculus will be renamed to 3 credits thus reducing the program to 125 credits.*

##### Accounting Electives (3 credits)

Complete 3 credits of accounting elective as per directed by student advisor or the Department.  
Electives (3 credits)  
International Business Electives



## Department of Accounting, Finance and Economics

### Bachelor of Business Administration in Accounting

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

Total credit hours: 126

#### BBA Accounting Year 1: Semester 1

IGED 110	Foundation Writing I	3
MATH 105	Intermediate Algebra	3
BGMT 104	Introduction to Business	3
MGIS 120	Computer Applications in Business	3
ORIN 101	Freshman Orientation	1
Total 13		

#### Year 1: Semester 2

IGED111	Foundation Writing II	3
IGED 140	Foundation of Ethics	3
BGMT 208	Business Communications	3
MATH 116	Finite Math	3
IGED 130	Foundations of Oral Communication	3
Total 15		

#### Year 2: Semester 3

IGED 210	Discovery Writing	3
ECON 201	Principles of Macroeconomics	3
BLAW 214	Legal Environment of Business	3
MATH 215	Calculus for Business, Social and Life Sciences	3
ACCT 201	Principles of Accounting I	3
Total 15		

#### Year 2: Semester 4

IGED 260	Discovery Science and Environmental Consciousness + Lab	4
IGED 270	Discovery Local/Global/Cultural Diversity	3
ECON 202	Principles of Microeconomics	3
BSEF 220	Business Statistics	3
ACCT 202	Principles of Accounting II	3
Total 16		

#### Year 3: Semester 5

IGED-280	Discovery Civics/Service/Service/Teamwork	3
MKTG 304	Introduction to Marketing Management	3
BGMT 304	Introduction to Management	3
BLAW 318	Commercial Law	3
BSEF 223	Quantitative Business Techniques	3
ACCT 301	Intermediate Accounting I	3
Total 18		

#### Year 3: Semester 6

BSEF 314	Business Finance	3
ACCT 302	Intermediate Accounting II	3
ACCT 312	Federal Income Tax	3
ACCT 325	Cost Accounting	3
	International Business Elective	3
	Accounting Elective	3

Total 15

#### Year 4: Semester 7

MGIS 402	Management Information Systems	3
BGMT 414	Production Management	3
BGMT 409	Organizational Theory and Behavior	3
ACCT 401	Auditing I	3
ACCT 407	Accounting Information Systems	3
IGED 391	Frontier Exploration Inquiry Capstone	1.5
Total 16.5		

#### Year 4: Semester 8

IGED 392	Frontier Exploration Inquiry Capstone	1.5
ACCT 402	Auditing II	3
ACCT 404	Advance Accounting	3
PSYC 201	Psychology	3
BGMT 419	Business Policy & Strategy *(Last semester only)	3
Total 13.5		





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## Department of Accounting, Finance and Economics

### Bachelor of Arts in Economic

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The Bachelor of Arts program in Economics offers students career flexibility. Courses foster an understanding of economic systems while also improving analytical reasoning and cognitive skills. Degree requirements provide an abundance of elective choices that enable majors to become well prepared for whatever follows their undergraduate years.

Students may select electives that prepare them for advanced study or employment in such fields as law, business, international relations, or journalism. Students who plan to pursue an M.A. program or higher in economics are strongly advised to take contemporary quantitative tools of analysis, which include statistics and calculus. The advisor can recommend the proper levels of these quantitative courses.

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#### Credit Statement:

The BA in Economics program requires completing a total of 121 credit hours for graduation, of which 27 credits are major requirements, 12 credits are required ancillary courses, 37 credits are general education courses, and 42 credits are free electives.

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#### Admission Statement

Accounting, Finance, and Economics are unrestricted majors, and any student eligible for admission to the University is eligible to declare them.

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#### GPA statement

Students must earn a minimum grade of "C" in all business courses and earn a cumulative GPA of 2.0 in order to remain in good standing.

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#### Transfer Requirements

ECON 311: Intermediate Macroeconomics and ECON 313: Intermediate Microeconomics may be transferred from another accredited institution only after the student passes a proficiency examination administered by the Department Chair. Course ECON 499: Seminar may not be transferred by proficiency and must be taken in residence. On occasion, the department may allow substitutions for this course.

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#### Residency Statement

The last 30 hours must be completed in residence. This includes courses taken through the consortium.

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#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation,

evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

Students majoring in Economics are required to complete 120 credit hours for graduation, of which 27 credits are major requirements, 15 credits are required ancillary courses, 37 credits general education courses, and 42 credits are free electives.

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#### Course Requirements

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##### ***Required General Education Courses (37 Credits\*)***

IGED 110 Foundation Writing I (3)  
IGED 120 Foundation Quantitative Reasoning (3)  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Quantitative Reasoning (3)  
IGED 140 Foundation Ethics (3)  
IGED 250 Discovery Technology (3)  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1.5)  
IGED 392 Frontier Capstone II(1.5)

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##### ***Required Economics (15 credits)***

ECON 201 Principles of Macroeconomics (3)  
ECON 202 Principles of Microeconomics (3)  
ECON 311 Intermediate Macroeconomics Theory (3)  
ECON 313 Intermediate Microeconomics Economics (3)  
ECON 499 Seminar (3)

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##### ***Required Ancillary Courses (15 credits)***

BSEF 220 Business Statistics (3)  
BSEF 223 Quantitative Business Techniques (3)  
BSEF 318 International Finance (3)  
MATH 113 Pre-Calculus I (3)  
Math 114 Pre-Calculus II (3)

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##### ***Economics Electives (12 credits)***

Complete 12 credits of approved economics electives from a list provided by the School of Business and Public Administration.

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##### ***Electives (42 credits)***

Student may take 42 credits of electives as approved by the Chairperson or Advisor

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## Department of Accounting, Finance and Economics

### Bachelor of Arts in Economic

#### *Model Plan of Study*

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

<b>Year 1: Semester 1 / Total Credits: 16</b>		
IGED-110	Foundation Writing I	3
IGED-130	Foundations of Oral Communication	3
IGED-120	Quantitative Reasoning I	3
ORIN 101	Freshman Orientation	1
ECON-201	Principles of Macroeconomics	3
	Elective	3
<b>Year 1: Semester 2 / Total Credits: 15</b>		
IGED 111	Foundation Writing II	3
ECON 202	Principles of Microeconomics	3
IGED 220	Quantitative Reasoning II	3
MGIS 120	Computer Applications in Business	3
	Elective	3
<b>Year 2: Semester 3 / Total Credits: 15</b>		
IGED 210	Discovery Expository Writing in Arts & Sciences	3
IGED 140	Foundations of Ethics	3
MATH 113	Pre-Calculus I	3
BSEF 220	Business Statistics	3
ECON 313	Intermediate Microeconomics	3
<b>Year 2: Semester 4 / Total Credits: 16</b>		
IGED 260	Discovery Science and Environmental Consciousness + Lab	4
IGED 270	Discovery Local/Global/Cultural Diversity	3
ECON 311	Intermediate Macroeconomic Theory	3
MATH 114	Pre-Calculus II	3
BSEF 223	Quantitative Business Techniques	3
<b>Year 3: Semester 5 / Total Credits: 15</b>		
ECON 313	Intermediate Microeconomics	3
ECON	*Economics Elective	3
IGED 280	Discovery	3
	Civics/Service/Service/Teamwork	
	Elective	3
	Elective	3
<b>Year 3: Semester 6 / Total Credits: 15</b>		
	Elective	3
ECON	*Economics Elective	3
BSEF 318	International Finance	3
	Elective	3
	Elective	3
<b>Year 4: Semester 7 / Total Credits: 15.5</b>		
	Elective	3
ECON	Economics Elective	3
IGED 391	Frontier Exploration Inquiry	1.5
	Capstone	
	Elective	3
	Elective	3
	Elective	2
<b>Year 4: Semester 8 / Total Credits: 13.5</b>		
	Elective	3
IGED 392	Frontier Exploration Inquiry	1.5
	Capstone	
	Elective	3
ECON 499	Seminar	3
	Elective	3



## Department of Accounting, Finance and Economics

### Bachelor of Business Administration in Finance

The program in Finance leads to a Bachelor of Business Administration (BBA) degree. The concentration in Finance presents an integrated treatment of the operational aspects of business financing and investments, and the functions of financial organizations. It also examines the interaction of government and business with respect to financial development and controls. Students majoring in Finance are required to complete 126 credit hours (see asterisk below) for graduation, of which 30 credits are in major requirements, 56 ancillary credit hours are business core, and 34 credits are in general education courses and 3 credits in general electives and 3 credits in business electives. The program leads to careers in corporate financial management, commercial banking, thrift institution administration, mortgage lending, brokerage of securities, real estate, insurance, financial counseling, and investment management, or to government careers in regulatory agencies and budgeting. An understanding of business statistics leads to careers in business research and operations research, as well as staff advisory to top management.

#### Credit Statement:

The BBA in Finance program requires completing 126 credit hours for graduation, of which 30 credits in major requirements, 56 ancillary credit hours are business core, and 34 credits are in general education, 3 credits in business electives and 3 credits in general electives.

#### Admission Statement

The Accounting, Finance, and Economics programs are unrestricted majors, and any student eligible for admission to the University is eligible to declare them.

#### GPA statement

Students must earn a minimum grade of "C" in all business courses and earn a cumulative GPA of 2.0 in order to remain in good standing.

#### Residency Statement

The last 30 hours must be completed in residence. This includes courses taken through the consortium.

#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### Course Requirements - Finance

Required General Education Courses (34 Credits\*)

IGED 110 Foundation Writing I (3)  
IGED 120 Foundation Quantitative Reasoning (3)\*  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
IGED 220 Discovery Quantitative Reasoning (3)\*  
IGED 140 Foundation Ethics (3)  
IGED 250\*\* Discovery Technology (3)\*\*  
IGED 210 Discovery Writing (3)  
IGED 260 Discovery Science + Lab (4)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1.5)  
IGED 392 Frontier Capstone II(1.5)

\* For Finance Majors, MATH 105 Intermediate Algebra replaces IGED 120 Foundation Quantitative Reasoning I & IGED 220 Quantitative Reasoning II.

\*\*For Finance Majors, MGIS 120 Computer Applications in Business replaces IGED 250 Discovery Technology

#### Required Finance (30 credits)

BSEF 214 Personal Finance (3)  
BSEF 220 Business Statistics (3)  
BSEF 223 Quantitative Business Techniques (3)  
BSEF 307 Money and Banking (3)  
BSEF 314 Business Finance (3)  
BSEF 318 International Finance (3)  
BSEF 411 Financial Management I (3)  
BSEF 412 Financial Management (3)  
BSEF 414 Security Analysis (3)  
BSEF 416 Financial Institution and Capital Markets (3)

#### Required Ancillary Courses (53 credits)

ORIN 101 Freshman Orientation (1)  
MGIS 402 Management Information Systems (3)  
ACCT 201 Principles of Accounting I (3)  
ACCT 202 Principles of Accounting II (3)  
ECON 201 Principles of Macroeconomics (3)  
ECON 202 Principles of Microeconomics (3)  
ECON 311 Intermediate Macroeconomics Theory (3)  
BGMT 104 Introduction to Business (3)  
BGMT 208 Business Communications (3)  
BGMT 304 Introduction to Management (3)  
BGMT 409 Organizational Theory & Behavior (3)  
BGMT 414 Production Management (3)  
BGMT 419 Business Policy and Strategy (3)\*\*\*  
BLAW 214 Legal Environment of Business (3)  
BLAW 318 Commercial Law (3)  
MATH 116 Finite Math (3)  
MATH 215 Calculus for Business, Social and Life Sciences (4)\*\*\*\*  
MKTG 304 Introduction to Marketing Management (3)

\*\*\*Calculus will be renamed to 3 credits thus reducing the program to 125 credits.

\*\*\*\*Last semester only

#### Finance/Accounting Elective (3 credits)

#### Electives (6 credits)

#### International Business Electives



## Department of Accounting, Finance and Economics

### Bachelor of Business Administration in Finance

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

#### BBA FINANCE Year 1: Semester 1

IGED 110	Foundation Writing I	3
IGED 130	Foundations of Oral Communication	3
MATH 105	Intermediate Algebra	3
BGMT 104	Introduction to Business	3
MGIS 120	Computer Applications in Business	3
ORIN 101	Freshman Orientation	1
Total 16		

#### Year 1: Semester 2

IGED 111	Foundation Writing II	3
IGED 140	Foundation of Ethics	3
BGMT 208	Business Communications	3
MATH 116	Finite Math	3
BSEF 214	Personal Finance	3
Total 15		

#### Year 2: Semester 3

IGED 210	Discovery Writing	3
ECON 201	Principles of Macroeconomics	3
BLAW 214	Legal Environment of Business	3
MATH 215	Calculus for Business, Social and Life Sciences	3
ACCT 201	Principles of Accounting I	3
Total 15		

#### Year 2: Semester 4

IGED 260	Discovery Science and Environmental Consciousness + Lab	4
IGED 270	Discovery Local/Global/Cultural Diversity	3
ECON 202	Principles of Microeconomics	3
BSEF 220	Business Statistics	3
ACCT 202	Principles of Accounting II	3
Total 16		

#### Year 3: Semester 5

IGED 280	Discovery Civics/Service/Service/Teamwork	3
MKTG 304	Introduction to Marketing Management	3
BGMT 304	Introduction to Management	3
BLAW 318	Commercial Law	3
BSEF 223	Quantitative Business Techniques	3
Total 15		

#### Year 3: Semester 6

BSEF 314	Business Finance	3
BGMT 414	Productions and Operations Management	3
BSEF 307	Money and Banking	3
BSEF 318	International Finance	3
BSEF 411	Financial Management I	3
ECON 311	Inter. Macroeconomic Theory	3
Total 18		

#### Year 4: Semester 7

MGIS 402	Management Information Systems	3
BGMT 409	Organizational Theory and Behavior	3
BSEF 414	Security Analysis	3
BSEF 416	Financial Institution & Capital Markets	3
	Business Elective	3
IGED 391	Frontier Exploration Inquiry Capstone	1.5
Total 16.5		

#### Year 4: Semester 8

IGED-392	Frontier Exploration Inquiry Capstone	1.5
BSEF 412	Financial Management II	3
	Finance / Accounting Elective	3
	Elective (Business or otherwise)	3
BGMT 419	Business Policy & Strategy *	3
	(Last semester only)	
Total 13.5		



## **School of Business and Public Administration**

### **Department of Management, Marketing, & Management Information Systems**

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#### ***Department Mission***

The mission of the Department of Management, Marketing, and Management Information Systems is to offer programs at the graduate and undergraduate levels that prepare students for careers in business, governmental, and non-profit organizations, develop their leadership abilities and skills, and enhance their capacities as critical thinkers and problem solvers. Emphasis is also given to preparing students for advanced studies in business and related fields, and for starting their own ventures as entrepreneurs. The Department further aims at orienting students to the latest advances in information technology and the global nature of today's business environment.

#### ***Department Description***

The Department of Management, Marketing and Management Information Systems offers programs and courses leading to the Master of Business Administration degree; and the Bachelor of Business Administration degrees in Business Management, in Marketing and in Management Information Systems. The Department also offers a Certificate in Entrepreneurship.

#### ***Department Offerings***

Bachelor of Business Administration (BBA) in Business Management  
Bachelor of Business Administration (BBA) in Marketing  
Bachelor of Business Administration (BBA) in  
Management Information Systems

#### ***Certificates***

Entrepreneurship

#### ***Graduate Degrees***

Master of Business Administration (MBA)

#### ***Accreditation***

Accreditation Council for Business Schools and Programs (ACBSP).

#### ***Honor Society***

Delta Mu Delta

#### ***Student Organizations***

Marketing Club  
Students in Free Enterprise (SIFE)

#### ***Department Policy Changes***

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog. The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### ***Additional Comments***

All current and prospective undergraduate students are encouraged to visit or call the Academic Department for curricular information and advising assistance. Programs' academic worksheets and general information are available online on the university's website, [www.udc.edu/sbpa](http://www.udc.edu/sbpa)



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## Department of Management, Marketing, & Management Information Systems

### Bachelor of Business Administration in Business Management

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#### Credit Statement:

The BBA program in Business Management requires the successful completion of 123 credit hours: 33 credit hours in the major requirement, 34 credit hours in general requirements and 56 in the ancillary requirements and electives.

#### Admission Statement

The Management, Marketing and Management Information Systems are unrestricted majors, and any student eligible for admission to the University is eligible to declare them.

International students, particularly from non-English speaking countries, must demonstrate sufficient English skills by taking and submitting scores from the IELTS or TOEFL tests as part of their application. The minimum TOEFL score for admission into the program is 79 for the Internet-based test.

#### GPA statement

Students must earn a minimum grade of C in all business courses and earn a cumulative GPA of 2.0 in order to remain in good standing.

#### Residency Statement

The last 30 hours must be completed in residence. This includes courses taken through the consortium.

#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog. The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

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#### Required General Education Courses (34Credits\*)

IGED 110 Foundation Writing I (3)

**IGED 120 Foundation Quantitative Reasoning (3)\***

IGED 130 Foundation Oral Communications (3)

IGED 111 Foundation Writing II (3)

**IGED 220 Discovery Quantitative Reasoning (3)\***

IGED 140 Foundation Ethics (3)

**IGED 250\*\*Discovery Technology (3)\*\***

IGED 210 Discovery Writing (3)

IGED 260 Discovery Science + Lab (4)

IGED 270 Discovery Diversity (3)

IGED 280 Discovery Civics (3)

IGED 391 Frontier Capstone I (1.5)

IGED 392 Frontier Capstone II(1.5)

\* For Management Majors, MATH 105 Intermediate Algebra replaces IGED 120 Foundation Quantitative Reasoning I & IGED 220 Quantitative Reasoning II.

\*\*For Management Majors, MGIS 120 Computer Applications in Business replaces IGED 250 Discovery Technology

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#### Required Management (24 credits)

BGMT 304 Introduction to Management (3)

BGMT 305 Conceptual Foundation of Business (3)

Or

BGMT 319 Business Ethics (3)

BGMT 306 Human Resources Management (3)

BGMT 406 Decision Theory (3)

BGMT 409 Organizational Theory & Behavior (3)

BGMT 411 Leadership (3)

BGMT 414 Production Management (3)

**BGMT419 Business Policy and Strategy (3)\*\*\***

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#### Required Ancillary Courses (47credits)

ACCT 201 Principles of Accounting I (3)

ACCT 202 Principles of Accounting II (3)

BGMT 104 Introduction to Business (3)

BGMT 208 Business Communications (3)

ORIN 101 Freshman Orientation (1)

MGIS 402 Management Information Systems (3)

ECON 201 Principles of Macroeconomics (3)

ECON 202 Principles of Microeconomics (3)

BLAW214 Legal Environment of Business (3)

BLAW 318 Commercial Law (3)

BSEF 220 Business Statistics (3)

BSEF 223 Quantitative Business Techniques (3)

BSEF 314 Business Finance (3)

MATH 116 Finite Math (3)

**MATH 215 Calculus for Business, Social and Life Sciences (4)\*\*\*\***

MKTG 304 Introduction to Marketing Management (3)

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#### Management (9 credits)

\*\*\* Last semester only

\*\*\*\*Calculus will be renamed to 3 credits thus reducing the program to 122 credits.

Management Elective

Management Elective

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#### Electives (9 credits)

International Business Electives

Business Elective

Any Elective



## Department of Management, Marketing, & Management Information Systems

### Bachelor of Business Administration in Business Management

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

BBA Business Management Year 1: Semester 1		
IGED 110	Foundation Writing I	3
IGED 130	Foundations of Oral Communication	3
MATH 105	Intermediate Algebra	3
BGMT 104	Introduction to Business	3
MGIS 120	Computer Applications in Business	3
ORIN 101	Freshman Orientation	1
Total		16

Year 1: Semester 2		
IGED 111	Foundation Writing II	3
IGED 140	Foundation of Ethics	3
BGMT 208	Business Communications	3
MATH 116	Finite Math	3
PSYC 201	Principles of Psychology I	3
Total		15

Year 2: Semester 3		
IGED 210	Discovery Writing	3
ECON 201	Principles of Macroeconomics	3
BLAW 214	Legal Environ. Of Business	3
MATH 215	Calculus for Business, Social and Life Sciences	3
ACCT 201	Principles of Accounting I	3
Total		15

Year 2: Semester 4		
IGED 260	Discovery Science and Environmental Consciousness + Lab	4
IGED 270	Discovery Local/Global/Cultural Diversity	3
ECON 202	Principles of Microeconomics	3
BSEF 220	Business Statistics	3
ACCT 202	Principles of Accounting II	3
Total		16

Year 3: Semester 5		
IGED 280	Discovery Civics/Service/Service/	3
MKTG 304	Introduction to Marketing Management	3
BGMT 304	Introduction to Management	3
BLAW 318	Commercial Law	3
BSEF 223	Quantitative Business Techniques	3
Total		15

Year 3: Semester 6		
BSEF 314	Business Finance	3
BGMT 305	Conceptual Foundations of Business	3
	or	
BGMT 319	Business Ethics	3
BGMT 306	Human Resources Management	3
	Business Elective	3
	International Business Elective	3
Total		15

Year 4: Semester 7		
MGIS 402	Management Info. Systems	3
BGMT 414	Production Management	3
BGMT 406	Decision Theory	3
BGMT 411	Leadership	3
BGMT 409	Organizational Theory and Behavior	3
IGED 391	Frontier Exploration Inquiry Capstone	1.5
Total		16.5

Year 4: Semester 8		
IGED 392	Frontier Exploration Inquiry Capstone	1.5
	Business Management Elective	3
	Management Elective	3
BGMT 419	Business Policy & Strategy (Last semester only)	3
	Public Management Elective	3
Total		13.5



## Department of Management, Marketing, & Management Information Systems

### Bachelor of Business Administration in Marketing

The Bachelor of Business Administration (BBA) in Marketing prepares students for careers in marketing management, sales, advertising, marketing research, retailing, distribution, and international marketing. This program requires the successful completion of 123 credit (see asterisk below) hours: 24 credit hours in the major requirements, 56 credit hours in the ancillary courses (including the Business Core), 34 credit hours in General Education courses, and 6 credit hours in business electives and 3 credit hour in any elective, including business

#### Credit Statement

The BBA in Marketing program requires the successful completion of 123 credit hours: 24 credits hours in the major requirements, 56 credit hours in the ancillary courses( including the Business Core), 34 credit hours in General Education courses, and 6 credit hours in business electives and 3 credit hour in any elective, including business.

#### Admission Statement

Accounting, Finance, and Economics are unrestricted majors, and any student eligible for admission to the University is eligible to declare them.

#### GPA statement

Students must earn a minimum grade of "C" in all business courses and earn a cumulative GPA of 2.0 in order to remain in good standing.

#### Residency Statement

The last 30 hours must be completed in residence. This includes courses taken through the consortium.

#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### Course Requirements for the Major

##### **Required General Education Courses (34 Credits\*)**

IGED 110 Foundation Writing I (3)

**IGED 120 Foundation Quantitative Reasoning (3)\***

IGED 130 Foundation Oral Communications (3)

IGED 111 Foundation Writing II (3)

**IGED 220 Discovery Quantitative Reasoning (3)\***

IGED 140 Foundation Ethics (3)

**IGED 250\*\* Discovery Technology (3)\*\***

IGED 210 Discovery Writing (3)

IGED 260 Discovery Science + Lab (4)

IGED 270 Discovery Diversity (3)

IGED 280 Discovery Civics (3)

IGED 391 Frontier Capstone I (1.5)

IGED 392 Frontier Capstone II (1.5)

*\* For Marketing Majors, MATH 105 Intermediate Algebra replaces IGED 120 Foundation Quantitative Reasoning I & IGED 220 Quantitative Reasoning II.*

*\*\*For Marketing Majors, CISS 120 Computer Applications in Business replaces IGED 250 Discovery Technology*

##### **Required Marketing (15 credits)**

MKTG 304 Introduction to Marketing Management (3)

MKTG 305 Consumer Behavior (3)

MKTG 306 Promotion Management (3)

MKTG 404 Marketing Research (3)

MKTG 405 Marketing Strategy (3)

##### **Required Ancillary Courses (56 credits)**

ACCT 201 Principles of Accounting I (3)

ACCT 202 Principles of Accounting II (3)

BGMT 104 Introduction to Business (3)

BGMT 208 Business Communications (3)

BGMT 304 Introduction to Management (3)

BGMT 409 Organizational Theory & Behavior (3)

BGMT 414 Production Management (3)

**BGMT419 Business Policy and Strategy (3)\*\*\***

ORIN 101 Freshman Orientation (1)

MGIS 402 Management Information Systems (3)

ECON 201 Principles of Macroeconomics (3)

ECON 202 Principles of Microeconomics (3)

BLAW 214 Legal Environment of Business (3)

BLAW 318 Commercial Law (3)

BSEF 220 Business Statistics (3)

BSEF 223 Quantitative Business Techniques (3)

BSEF 314 Business Finance (3)

MATH 116 Finite Math (3)

**MATH 215 Calculus for Business, Social and Life Sciences (4)\*\*\*\***

##### **Marketing Electives (9 credits)**

Marketing Elective

Marketing Elective

International Marketing Elective

*Electives (9 credits)*

Business Elective

Business/Marketing Elective

Any Elective

**\*\*\*Last semester only**

**\*\*\*\*Calculus will be renamed to 3 credits thus reducing the program to 122 credits.**





## Department of Management, Marketing, & Management Information Systems

### Bachelor of Business Administration in Marketing

#### *Model Plan of Study*

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

<b>BBA MARKETING Year 1: Semester 1</b>		
IGED 110	Foundation Writing I	3
IGED 130	Foundations of Oral Communication	3
MATH 105	Intermediate Algebra	3
BGMT 104	Introduction to Business	3
MGIS 120	Computer Application in Business	3
ORIN 101	Freshman Orientation	1
Total	16	
<b>Year 1: Semester 2</b>		
IGED 111	Foundation Writing II	3
IGED 140	Foundation of Ethics	3
BGMT 208	Business Communications	3
MATH 116	Finite Math	3
ECON 201	Principles of Macroeconomics	3
Total	15	
<b>Year 2: Semester 3</b>		
IGED 210	Discovery Writing	3
ECON 202	Principles of Microeconomics	3
BLAW 214	Legal Environment of Business	3
MATH 215	Calculus for Business, Social and Life Sciences	3
ACCT 201	Principles of Accounting I	3
Total	15	
<b>Year 2: Semester 4</b>		
IGED 260	Discovery Science and Environmental Consciousness + Lab	4
IGED 270	Discovery Local/Global/Cultural Diversity	3
IGED 280	Discovery Civics/Service/Service/Teamwork	3
BSEF 220	Business Statistics	3
ACCT 202	Principles of Accounting II	3
Total	16	
<b>Year 3: Semester 5</b>		
BSEF 314	Business Finance	3
MKTG 304	Introduction to Marketing Management	3
BGMT 304	Introduction to Management	3
BLAW 318	Commercial Law	3
BSEF 223	Quantitative Business Techniques	3
Total	15	

<b>Year 3: Semester 6</b>		
MKTG 310	Direct Marketing Management	3
BGMT 305	Consumer Behavior	3
	Business Elective	3
	International Marketing	3
MKTG 306	Promotion Management	3
Total	15	
<b>Year 4: Semester 7</b>		
MGIS 402	Management Information Systems	3
BGMT 414	Production and Operations Management	3
MKTG 404	Marketing Research	3
BGMT 409	Organizational Theory & Behavior	3
	Business or Marketing Elective	3
IGED 391	Frontier Exploration Inquiry Capstone	1.5
Total	16.5	
<b>Year 4: Semester 8</b>		
IGED-392	Frontier Exploration Inquiry Capstone	1.5
MKTG 405	Marketing Strategy	3
	Elective	3
	Marketing Elective	3
BGMT 419	Business Policy & Strategy (Last semester only)	3
Total	13.5	



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## Department of Management, Marketing, & Management Information Systems

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### Bachelor of Business Administration in Management Information Systems

The Bachelor of Business Administration (BBA) in Management Information Systems focuses on computer applications in business, industrial, governmental, and nonprofit organizations. The program prepares students for careers in the growing field of Information Technology (IT) by developing skills in systems analysis and design, programming, network administration, database management, and Internet web site development. The objectives apply not only to the development of competency in the particular skills of computer applications, but also to the attainment of skills in reasoning and logical analysis. The program requires the successful completion of 123 credit hours (see asterisk below): 30 credit hours in the major requirements, 53 credit hours in the ancillary course requirements (including the Business Core), 34 credit hours in General Education requirements, and 6 business electives.

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#### Credit Statement

The BBA in Management Information Systems program requires the successful completion of 123 credit hours: 30 credit hours in the major requirements, 53 credit hours in the ancillary course requirements (including the Business Core), 34 credit hours in General Education requirements, and 6 business electives.

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#### Admission Statement

Accounting, Finance, Economics are unrestricted majors, and any student eligible for admission to the University is eligible to declare them.

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#### GPA statement

Students must earn a minimum grade of "C" in all business courses and earn a cumulative GPA of 2.0 in order to remain in good standing.

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#### Residency Statement

The last 30 hours must be completed in residence. This includes courses taken through the consortium.

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#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog. The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

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#### Course requirements for the Major

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##### Required General Education Courses (34 Credits)

IGED 110 Foundation Writing I (3)

**IGED 120 Foundation Quantitative Reasoning (3)\***

IGED 130 Foundation Oral Communications (3)

IGED 111 Foundation Writing II (3)

**IGED 220 Discovery Quantitative Reasoning (3)\***

IGED 140 Foundation Ethics (3)

**IGED 250\*\* Discovery Technology (3)**

IGED 210 Discovery Writing (3)

IGED 260 Discovery Science + Lab (4)

IGED 270 Discovery Diversity (3)

IGED 280 Discovery Civics (3)

IGED 391 Frontier Capstone I (1.5)

IGED 392 Frontier Capstone II (1.5)

*\* For Management Information System Majors, MATH 105*

*Intermediate Algebra replaces IGED 120 Foundation Quantitative Reasoning I & IGED 220 Quantitative Reasoning II.*

*\*\*For Management Information System Majors, MGIS 120 Computer Applications in Business replaces IGED 250 Discovery Technology*

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##### Required Management Information Systems (21 credits)

MGIS 220 Programming for Business (3)

MGIS 225 Problem Solving with Visual Basic (3)

MGIS 330 Internet Programming (3)

MGIS 401 Business System Analysis and Design (3)

MGIS 402 Management Information Systems (3)

MGIS 419 Computer and the Law (3)

MGIS 420 Database Programming (3)

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##### Required Ancillary Courses (53 credits)

ACCT 201 Principles of Accounting I (3)

ACCT 202 Principles of Accounting II (3)

BGMT 104 Introduction to Business (3)

BGMT 208 Business Communications (3)

BGMT 304 Introduction to Management (3)

BGMT 409 Organizational Theory & Behavior (3)

BGMT 414 Production Management (3)

**BGMT 419 Business Policy and Strategy (3)\*\*\***

ORIN 101 Freshman Orientation (1)

ECON 201 Principles of Macroeconomics (3)

ECON 202 Principles of Microeconomics (3)

BLAW 214 Legal Environment of Business (3)

BSEF 220 Business Statistics (3)

BSEF 223 Quantitative Business Techniques (3)

BSEF 314 Introduction to Business Finance (3)

MATH 116 Finite Math (3)

**MATH 215 Calculus for Business, Social and Life Sciences (4)\*\*\*\***

MKTG 304 Introduction to Marketing Management (3)

**\*\*\* Last semester only**

**\*\*\*\*Calculus will be renamed to 3 credits thus reducing the program to 122 credits.**

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##### Management Information Systems Electives (9 credits)

Management Information Systems Elective

Management Information Systems Elective

Management Information Systems Electives

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##### Electives (6 credits)

International Business Elective

Business Elective

\*Students may choose an alternative course depending on their computer skills.

**Recommended electives:**

BSEF-214 Personal Finance

BGMT 309 Introduction to E-Commerce



## Department of Management, Marketing, & Management Information Systems

### Bachelor of Business Administration in Management Information Systems

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

BBA MANAGEMENT INFORMATION SYSTEMS Year 1: Semester 1		
IGED 110	Foundations of Writing I	3
IGED 130	Foundations of Oral Communication	3
MATH 105	Intermediate Algebra	3
BGMT 104	Introduction to Business	3
MGIS 120	Computer Applications in Business	3
ORIN 101	Freshman Orientation	1
		Total 16

Year 1: Semester 2		
IGED-111	Foundations of Writing II	3
IGED 140	Foundation of Ethics	3
BGMT 208	Business Communications	3
MGIS 220	Programming for Business	3
MATH 116	Finite Math	3
		Total 15

Year 2: Semester 3		
IGED 210	Discovery Writing	3
ECON 201	Principles of Macroeconomics	3
BLAW 214	Legal Environment Of Business	3
MATH 215	Calculus for Business, Social and Life Sciences	3
ACCT 201	Principles of Accounting I	3
		Total 15

Year 2: Semester 4		
IGED 260	Discovery Science and Environmental Consciousness + Lab	4
IGED 270	Discovery Local/Global/Cultural Diversity	3
MGIS 225	Problem Solving w/Visual Basic	3
BSEF 220	Business Statistics	3
ACCT 202	Principles of Accounting II	3
		Total 16

Year 3: Semester 5		
IGED 280	Discovery Civics/Service/Service/Teamwork	3
MKTG 304	Introduction to Marketing Management	3
BGMT 304	Introduction to Management	3
BSEF 223	Quantitative Business Tech.	3
ECON 202	Principles of Microeconomics	3
		Total 15

Year 3: Semester 6		
BSEF 314	Business Finance	3
	International Business Elective	3
MGIS 330	Internet Programming	3
	Info Systems Elective	3
BGMT 409	Org. Theory & Behavior	3
		Total 15

Year 4: Semester 7		
MGIS 402	Management Info. Systems	3
BGMT 414	Production Management	3
MGIS 401	Business System Analysis & Design	3
MGIS 419	Computer and the Law	3
	Information Systems Elective	3
IGED 391	Frontier Exploration Inquiry Capstone	1.5
		Total 16.5

Year 4: Semester 8		
IGED 392	Frontier Exploration Inquiry Capstone	1.5
MGIS 420	Data Base Programming	3
	Information System Elective	3
	Business Elective	3
BGMT 419	Business Policy & Strategy (Last semester only)	3
		Total 13.5



## Department of Management, Marketing, & Management Information Systems

### The Master of Business Administration (MBA)

The Master of Business Administration (MBA) integrates sustainability, entrepreneurship, and globalization with a solid core of business fundamentals to produce creative graduates with an entrepreneurial mindset ready to provide leadership in private and public sector organizations. The program accepts students with baccalaureate degrees in every field. As a professional degree program, a major objective of the MBA program is to provide students a background and working level of skills, knowledge, and abilities that prepare them for leadership positions in public, private, and nonprofit organizations.

#### The Undergraduate Certificate in Entrepreneurship

This certificate program in Entrepreneurship develops skills in starting new ventures through a selected set of courses which can be completed in one year. Students, regardless of their major, may enroll in this program and earn a Certificate of Completion.

#### Credit Statement:

Total credit hours of college-level courses required for the attainment of the Certificate: 24

The credits earned may also count toward a baccalaureate degree in business administration.

#### GPA Statement

A minimum of a "C" is required in all courses.

Students may choose an alternative course depending on their computer skills.

#### Recommended electives:

- BSEF-214 Personal Finance
- BGMT 309 Introduction to E-Commerce

### The Master of Business Administration (MBA)

#### Credit Statement

The program consists of 33 credit hours of core courses, and 15 credit hours of concentration courses, which can be completed by a full-time student in four regular semesters. Total credit hours of graduate-level courses required for graduation: 48

#### Admission Statement

Admission into the graduate MBA program requires a baccalaureate degree conferred by an accredited institution, a minimum of 2.5 grade point average, two letters of recommendation, 500 word typed essay of objectives and career aspirations and a minimum score of 400 on the Graduate Management Admission Test (GMAT). However, this may be waived for five years of relevant professional work experience.

#### GPA statement

MBA students must maintain a grade point average of 3.0 or better. A grade of C is allowed in two courses, provided that the cumulative GPA is 3.0 or better.

#### Residency Statement

Of the 48 MBA required credits, 42 must be taken in residence at the University of the District of Columbia. The MBA Program allows only 6 transfer credits.

#### Department Policy Changes

Policies of the department programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog.

The department reserves the rights to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### Additional Comments

All current and prospective Graduate students are encouraged to visit the School's website [www.udc.edu/sbpa](http://www.udc.edu/sbpa) or call the academic department for curricular information and advising assistance.

#### MBA Business Administration Year 1: Semester 1

MKTG 503	Business Research Methods	3
BGMT 506 OR BGMT 508	Management Theory and Practice/ OR Organization Development & Behavior	3
ACCT 504	Accounting For Management Functions	3
BGMT 510	Sustainability Entrepreneurship	3
		Total 12

#### Year 1: Semester 2

BSEF 504	Financial Management	3
BLAW 503	Business Law and Ethics	3
MGIS 507	Management Information Systems	3
BSEF 505	Managerial Economics	3
		Total 12

#### Year 2: Semester 3

BSEF 526	Quantitative Business Methods	3
	Elective	3
	Elective	3
	Elective	3
		Total 12

#### Year 2: Semester 4

BGMT 529	Global Strategic Management	3
	Elective	3
	Elective	3
	Elective	3
		Total 12

All current and prospective Graduate students are encouraged to visit the School's website [www.udc.edu/sbpa](http://www.udc.edu/sbpa) or call the academic department for curricular information and advising assistance.



## **School Of Business and Public Administration**

### **Department of Public Administration**

202-274-7040

The Department of Public Administration offers the Master of Public Administration (MPA), the baccalaureate and certificate in Procurement & Public Contracting.

#### ***Department Mission***

The mission of the Department of Public Administration is to offer programs in public affairs and administration; procurement and public contracting, and nonprofit leadership with an emphasis on providing students with an educational experience that prepares them for careers in public service and nonprofit organizations. In designing its programs, it recognizes the interrelationship between the public and business sectors, and emphasizes the development of leadership, analytic and conceptual skills that are needed for success in 21st century governmental, quasi-governmental, and nonprofit organizations.

#### **Department Offerings**

##### **Bachelor Degrees:**

Bachelor of Business Administration (BBA) in Procurement and Public Contracting

##### **Certificates**

Procurement and Public Contracting

##### **Graduate Degrees**

Master of Public Administration (MPA)

##### **Student Organizations**

National Forum of Black Public Administrators (UDC-NFPBA)

#### **Department Policy Changes**

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog. The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### **Additional Comments**

All current and prospective undergraduate students are encouraged to visit or call the Academic Department for curricular information and advising assistance. Programs' academic worksheets and general information are available online on the university's website, [www.udc.edu/sbpa](http://www.udc.edu/sbpa)

#### **Certificate in Procurement and Public Contracting**

The Certificate Program in Procurement and Public Contracting is to prepare students for employment as procurement specialists, project managers, and contract administrators. It is designed for students who aspire for careers in procurement and public acquisition systems. Students must complete 24 semester hours in purchasing, contract negotiation and administration, cost analysis, and related subjects. Full time students can complete this program in one academic year.

#### **Credit Statement**

Total credit hours of college-level courses required for the attainment of the Certificate: 24

#### **GPA statement**

For the Certificate in Procurement and Public Contracting, students must earn a minimum grade of C in all courses.

All current and prospective graduate students are encouraged to visit the University's website [www.udc.edu/sbpa](http://www.udc.edu/sbpa) or call the academic department for curricular information and advising assistance.



## Department of Public Administration

### Bachelor of Business Administration in Procurement and Public Contracting

The Bachelor of Business Administration in Procurement and Public Contracting prepares students for careers as procurement specialists. The program is designed to prepare students for level I and level II certification in the Federal Government. This program requires the successful completion of 123 credit hours (see asterisk below): 27 credit hours in the major requirements, 56 credit hours in the ancillary courses (including the Business Core), 34 credit hours in General Education courses, and 6 business electives.

#### Credit Statement

The BBA in Procurement and Public Contracting program requires the successful completion of 123 credit hours (see asterisk below): 27 credits hours in the major requirements, 56 credit hours in the ancillary courses( including the Business Core), 34 credit hours in General Education courses, and 6 business electives.

#### GPA statement

Students in the baccalaureate degree program must earn a grade of "C" in all business courses and a cumulative GPA of 2.0 in order to remain in good standing.

#### Admissions Statement

International students, particularly from non-English speaking countries, must demonstrate sufficient English skills by taking and submitting scores from the IELTS or TOEFL tests as part of their application. The minimum TOEFL score for admission into the program is 79 for the Internet-based test.

#### Residency Statement

The last 30 hours must be completed in residence. This includes courses taken through the consortium.

#### Department Policy Changes

Policies of the department of Department Programs are subject to revision during the course of development, implementation, evaluation, and the revision of a curriculum. These changes may become effective prior to publication of the next catalog. The department reserves the right to make needed or required curriculum revisions without prior notice or publication, provided these changes would at no time lengthen the period of time required to obtain the degree.

#### Course Requirements for the Major

##### Required General Education Courses (34 Credits)

IGED 110 Foundation Writing I (3)  
**IGED 120 Foundation Quantitative Reasoning (3)\***  
IGED 130 Foundation Oral Communications (3)  
IGED 111 Foundation Writing II (3)  
**IGED 220 Discovery Quantitative Reasoning (3)\***  
IGED 140 Foundation Ethics (3)  
**IGED 250\*\* Discovery Technology (3)**  
IGED 210 Discovery Writing (3)  
IGED 220 Discovery Science + Lab (4)  
IGED 270 Discovery Diversity (3)  
IGED 280 Discovery Civics (3)  
IGED 391 Frontier Capstone I (1.5)  
IGED 392 Frontier Capstone II (1.5)

\* For Procurement and Public Contracting Majors, MATH 105 Intermediate Algebra replaces IGED 120 Foundation Quantitative Reasoning I & IGED 220 Quantitative Reasoning II.

\*\*For Procurement and Public Contracting Majors, MGIS 120 Computer Applications in Business replaces IGED 250 Discovery Technology

##### Required Procurement and Public Contracting (27 credits)

BLAW 214 Legal Environment of Business (3)  
BLPC 304 Purchasing & Material Management (3)  
BLAW 318 Commercial Law (3)  
BLPC 305 Federal Acquisition Systems (3)  
BLPC 306 Formation of Government Contracts (3)  
BLPC 404 Contract Administration (3)  
BLPC 406 Cost & Price Analysis (3)  
BLPC 407 Contract Negotiation (3)  
BLPC 408 Procurement Law (3)

##### Required Ancillary Courses (56 credits)

ACCT 201 Principles of Accounting I (3)  
ACCT 202 Principles of Accounting II (3)  
BGMT 104 Introduction to Business (3)  
BGMT 208 Business Communications (3)  
BGMT 304 Introduction to Management (3)  
BGMT 409 Organizational Theory & Behavior (3)  
BGMT 414 Production Management (3)  
**BGMT419 Business Policy and Strategy (3)\*\*\***  
ORIN 101 Freshman Orientation (1)  
MGIS 402 Management Information Systems (3)  
ECON 201 Principles of Macroeconomics (3)  
ECON 202 Principles of Microeconomics (3)  
BSEF 220 Business Statistics (3)  
BSEF 223 Quantitative Business Techniques (3)  
BSEF 314 Business Finance (3)  
MATH 116 Finite Math (3)  
**MATH 215 Calculus for Business, Social and Life Sciences (4)\*\*\*\***  
MKTG 304 Introduction to Marketing Management  
PSYC 201 Principles of Psychology

##### Electives (6 credits)

International Business Elective

Business Elective

\*\*\*Last semester only

\*\*\*\*Calculus will be renamed to 3 credits thus reducing the program to 122 credits.

\* For Procurement and Public Contracting Majors, MATH 105 Intermediate Algebra replaces IGED 120 Foundation Quantitative Reasoning I and IGED 220 Quantitative Reasoning II.

\*\*For Procurement and Public Contracting Majors, MGIS 120 Computer Applications in Business replaces IGED 250 Discovery Technology



## Department of Public Administration

### Bachelor of Business Administration in Procurement and Public Contracting

#### Model Plan of Study

The program outlined illustrates one way a student might begin the curriculum in an orderly fashion. Entering freshmen without the necessary background to begin at this level, or students entering the program late, may, with careful planning, be able to complete the degree in a satisfactory amount of time.

#### **BBA Procurement and Public Contracting**

<b>Year 1: Semester 1</b>		
IGED 110	Foundations of Writing I	3
IGED 130	Foundations of Oral communication	3
MATH 105	Intermediate Algebra	3
BGMT 104	Introduction to Business	3
CISS 120	Computer Applications in Business	3
ORIN 101	Freshman Orientation	1
		Total 16
<b>Year 1: Semester 2</b>		
IGED-111	Foundations of Writing II	3
IGED 140	Foundation of Ethics	3
BGMT 208	Business Communications	3
MATH 116	Finite Math	3
PSYC 201	Principles of Psychology	3
		Total 15
<b>Year 2: Semester 3</b>		
IGED-210	Discovery Writing	3
ECON 201	Principles of Macroeconomics	3
BLAW 214	Legal Environment Of Business	3
MATH 215	Calculus for Business, Social and Life Sciences	3
ACCT 201	Principles of Accounting I	3
		Total 15
<b>Year 2: Semester 4</b>		
IGED 260	Discovery Science and Environmental Consciousness + Lab	4
IGED 270	Discovery Local/Global/Cultural Diversity	3
ECON 202	Principles of Microeconomics	3
BSEF 220	Business Statistics	3
ACCT 202	Principles of Accounting II	3
		Total 16
<b>Year 3: Semester 5</b>		
IGED 280	Discovery Civics/Service/Service/Teamwork	3
MKTG 304	Introduction to Marketing Management	3
BGMT 304	Introduction to Management	3
PAPC 304	Purchasing and Material Management	3
BSEF 223	Quantitative Business Techniques	3
		Total 15
<b>Year 3: Semester 6</b>		
BSEF 314	Business Finance	3
BLAW 318	Commercial Law	3
PAPC 305	Federal Acquisition Systems	3
PAPC 306	Formation of Government Contracts	3
BGMT 409	Organizational Theory and Behavior	3
		Total 15

<b>Year 4: Semester 7</b>		
MGIS 402	Management Information Systems	3
BGMT 414	Production Management	3
PAPC 404	Contract Administration	3
PAPC 406	Cost & Price Analysis	3
PAPC 407	Contract Negotiation	3
IGED 391	Frontier Exploration Inquiry Capstone	1.5
		Total 16.5
<b>Year 4: Semester 8</b>		
IGED 392	Frontier Exploration Inquiry Capstone	1.5
PAPC 408	Procurement Law	3
	International Business Elective	3
	Business Elective	3
BGMT 419	Business Policy & Strategy (Last semester only)	3
		Total 13.5



## University of the District of Columbia Community College (UDC-CC)

Building 53

801 North Capitol Street NE, Suite 321,

☎202.274.5830

The University of the District of Columbia-Community College (UDC-CC) serves the City's residents by integrating workforce preparation, employability skill development, quality education and remediation, economic development and employer linkages, and school-to-career training, providing a seamless transition from K-12 to adult education and literacy to college preparation and continuous lifelong learning. The College provides new opportunities to DC citizens, employers, the University, and the District of the Columbia.

In diverse, technology-enhanced learning environments, the mission of UDC-CC is to provide opportunities for students to obtain the requisite skills for today's workforce and prepares them for the demands of tomorrow. UDC-CC offers accessible, affordable, and high-quality programs to the residents of the District of Columbia and the region. Its associate's degrees, certificates, workforce development, and lifelong learning programs are market-driven and learner-focused. UDC-CC serves as a vital link to the intellectual, economic, civic, and cultural vitality of the region.

Serving as a benchmark for excellence, the vision of the UDC-CC is to provide opportunities for District residents to access high-quality, affordable, learner-focused and market-driven programs that advance the economic, social, and educational goals of individuals and the community.

UDC Community College is a college of the University of the District of Columbia and is accredited by the Middle States Commission on Higher Education.

### History and Future Plans

In January 2009, under the leadership of Dr. Allen Sessoms, President of the University of the District of Columbia (UDC), the University announced its intention to create a community college. Beginning in the fall 2009, under the leadership of a new CEO, the community college assumed responsibility for:

**Associate Degrees** – Two-year academic degree programs leading to careers that are in demand;

**Certificate Programs** – Short-term educational and training programs that enhance professional options;

**Continuing Education** – Programs that enhance current job skills, meet Continuing Education Unit (CEU) requirements, and offer an array of over 1000 online courses of all types; and

**Workforce Development** – Job and professional training to help students develop the skills that local employees need in today's job market.

Academic Year 2009-2010 was the first year of operation for UDC-CC, and it was a transition year during which the Community College offered only those programs that had traditionally been offered at UDC and shared all student services with UDC. Over the next five years, the Community College plans to continue expanding programmatic offerings, transition to branch campus status, and eventually separate all of its services from UDC, becoming a leading, cutting-edge institution that meets the needs of 21<sup>st</sup> century students needing to compete in the local and global economy.

### Partnerships – Achieving the Dream: Community Colleges Count

In 2010, the Community College became a member of Achieving the dream. Signifying its commitment to continuous institutional improvement and student success, UDC-CC has joined Achieving the Dream: Community Colleges Count. As part of this nationwide initiative, UDC-CC will identify new strategies to increase student success, close achievement gaps, and improve retention and completion rates.

### UDC-CC Locations

UDC-CC Center: 801 North Capitol Street NE, just two blocks from Union Station.

UDC-CC is a nine-story, 88,000 square foot space with classrooms, computer and science labs, a Student Success Center, a one-stop student services center, bookstore, library resource center, tutoring center, and college faculty and administrative offices. It is also where the center for Workforce Development and Lifelong Learning (WDLL) programs administration, including Continuing Education are located.

**The UDC-CC Center** is listed as Building 53 in the course catalog and course guides.

**Bertie Backus\***: One of UDC-CC's sites, is located at 5171 South Dakota Avenue NE (near the Fort Totten Metro station on the Red, Yellow and Green lines)

This was the first location provided by the DC Council in 2009, home to UDC-CC's practical nursing, nursing assistant, and home health aide programs and the architectural engineering, fashion merchandising and construction management degree programs.

*\*Bertie Backus is listed as Building 54 in the course catalog and course guides.*

### **Reagan National Airport, Hangar #2**

Home to the Aviation Maintenance Technology certification and degree programs.

**University of the District of Columbia**: 4200 Connecticut Avenue NW (at the Van Ness Metro Station on the Red line. The UDC main campus serves as the site of UDC-CC's two-year degree programs in mortuary science, music, graphic design and graphic communication technology.

### **Workforce Development and Lifelong Learning – Specific Locations**

Workforce Development and Lifelong Learning offers programs for District of Columbia residents. We offer specialized programs at several convenient locations throughout the metropolitan area.

To learn more, please visit the Workforce Development page on the UDC-CC website:

☎202.274.6999

[http://ccdc.usdc.edu/workforce\\_development](http://ccdc.usdc.edu/workforce_development).





### **Workforce Development and Lifelong Learning**

☎ 202.274.6999

Workforce Development and Lifelong Learning offers non-credit courses for District of Columbia residents. We offer District of Columbia residents with job skills training leading to employment.\*WDLL focuses on industries where jobs are available in the District and in the metropolitan area. The four areas identified by the District of Columbia as most in demand include: (1) Allied Health and Nursing, (2) Construction and Property Management, (3) Hospitality and Tourism, and (4) Administrative and Information Technology.

WDLL also provides training to improve the core training and work skills of DC residents. These programs include:

- Preparation for the General Education Diploma (GED)
- Preparation for the ACCUPLACER test used by the Community College and UDC
- Preparation for the National Work Readiness credential
- Digital Literacy to prepare for using a computer

WDLL offers a wide range of training to meet the needs of District residents and the requirements of District businesses and to date has trained more than 4,000 District residents.

To learn more, please visit the Workforce Development pages on the UDC-CC website:

- Class Descriptions
- Online Schedule of Classes
- Information on How to Enroll
- List of WDLL Locations and Contact Information.

### **Continuing Education**

☎ 202.274.5536

The Continuing Education (CE) program at the UDC-CC provides non-credit opportunities for personal, professional, and civic growth.\* Courses are designed to provide people with the skills needed for current and emerging job markets as well as for exploring personal interests. These courses are open to everyone. To enroll, simply fill out an online registration form. There are over a thousand online classes in nearly any subject imaginable.

In the 19th century, an American lyceum movement provided adult education in cities and towns across the country. Lyceums were public spaces that not only provided space for learning but also a place for community theatre and civic activism. This movement was in many ways our country's earliest effort at adult education. Continuing Education at the Community College is seen as an extension of this movement. UDC-CC staff and faculty aspire to become a public place where people can learn, new ideas can be shared, and workshops can be conducted that equip the community with the tools needed to live inspire and rewarding lives.

UDC-CC offers both online and instructor-led classes. Continuing Education is part of the Division of Workforce Development and Lifelong Learning in the Community. Classes are designed to teach specific job skills ranging from Business and Finance to Project Management and IT offerings. UDC-CC awards CEUs (Continuing Education Units) for approved classes and workshops. Staff and faculty are committed to providing classes in neighborhoods across the city.

To find out more information or register for a program, please visit: [http://cc.udc.edu/continuing\\_education](http://cc.udc.edu/continuing_education).

### **The Community College C.A.R.E. Program (College Access and Readiness for Everyone)**

☎ 202.274.5830

UDC-CC has designed a comprehensive program to expose Washington D.C.'s high school students to knowledge, curricula, and tools to transition them from high school to college. Students learn important college readiness skills including how to apply to college, how to study more effectively, how to self-advocate, and much more.

The program components include:

#### **Dual Enrollment Program**

High school students can take credit bearing college level courses at UDC-CC

#### **Early ACCUPLACER Testing**

Provides Accuplacer pre-testing for all 10th, 11th and 12th graders, which tells students whether or not they are academically ready for college level courses.

#### **College READY Intervention**

Service provides free online interventions for students who do not meet the required Accuplacer scores for reading, writing, and math

#### **Articulation Agreements**

Students receive college credits for completion of identified courses taken in high school.

#### **College Readiness Institute**

An institute hosted by UDC-CC which focuses on collaborating with school administrators counselors and teachers, how to help students become college ready.

#### **College for a Day Experience**

High school students spend a day at UDC-CC learning about the admission process, taking a tour of the campus, and interacting with students, faculty, and administrators.



## **Office of Student Achievement**

☎ 202.274.5800

The Office of Student Achievement (OSA) is committed to creating a positive experience for students attending UDC-CC. To accomplish this, the OSA provides an array of student support services under the following areas:

### **The Testing and Assessment Office.**

Students entering the University for the first time and whose primary language is English, and students pursuing a degree who have not completed courses in English and Mathematics at another postsecondary institution are required to take the Reading, English, and Mathematics section of the ACCUPLACER test before registering for classes. The computerized placement test, ACCUPLACER, measures the three basic areas to determine students' readiness for college level work. It enables academic and faculty advisors to place students in the appropriate courses and thereby supporting students' academic success. To register for the ACCUPLACER test, please visit the UDC-CC website. High school students also may qualify to take courses at UDC-CC through the Dual Enrollment Program which allows students to be dually enrolled in high school and college at the same time. To determine eligibility, the Testing and Assessment Office participates with Washington D.C. Public and Charter Schools in testing the high schools students in 10<sup>th</sup> through 12<sup>th</sup> grades. Students must obtain scores that are needed to enroll in college level English or Mathematics to participate in the Dual Enrollment Program. International students whose native language is not English, and who did not graduate from high school or receive a GED in the United States must successfully complete the Test of English as a Foreign Language (TOEFL). This requirement will be waived upon UDC-CC receiving an official transcript from an accredited American college or university. For more information, please call 202.274.6063.

### **The Student Success Center**

The Center offers academic success workshops, tutoring as well as engage student in activities that will contribute to their overall success and make the college experience rewarding and fun. The Student Success Team is committed to helping UDC-CC students to succeed academically as well as achieve their education and career goals. For more information, please call the Student Success Center at 202.274.6988.

#### **Academic Advising**

The Student Success Center provides academic advising to UDC-CC students. The staff also works closely with faculty in assisting students with advising in the major area of study. Students can make an appointment via phone or visit the Center during office hours to meet with a Student Success Specialist.

#### **New Student Orientation Sessions**

Once students have been accepted, they must attend a New Student Orientation session before registering for fall or spring semester classes. Refer to the UDC-CC website to register for an orientation session.

### **Early Alert Program**

The Early Alert Program serves as an effective way to monitor students who are struggling academically. UDC-CC uses the retention program GradesFirst to monitor student progress in courses, and where necessary, to provide interventions that can help to improve students' academic achievement. The Student Success Team (SST) works collaboratively with faculty members to identify students who need assistance. In addition, SST works with students individually to develop a plan for successfully completing their courses. For more information, please call the Student Success Center at 202.274.6988.

### **The Academic Center for Excellent Students (A.C.E.S.)**

ACES is geared toward helping students excel academically. The Center is designed to provide educational services to UDC-CC students. Although the main function of ACES is to provide face-to-face tutoring, the Center offers other resources such as computers for academic and school-related use, and academic workshops. ACES provide a safe, distraction-free learning environment for all UDC-CC students.

### **Office of Counseling & Disability Services UDC-CC**

The mission of the Office of Counseling & Disability Services (OCDS) is to provide confidential counseling and disability services that accommodate and serve the emotional, psychological, and physical needs of UDC-CC students. The counseling services provide support and referral services to students in the form of individual counseling, crisis intervention, workshops and events for UDC-CC students. OCDS has the responsibility of coordinating reasonable accommodations and providing support services for UDC-CC students with disabilities in compliance with the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973. For more information, please call 202.274.6173 for counseling services, or call 202.274.6182 for disability services.

OCDS encourages students to utilize the services. The first step of receiving OCDS counseling and/or disability services is to speak with an OCDS Counselor. A UDC-CC student's initial appointment will be a consultation or an intake. It is then the student's decision, during or after the appointment, whether or not to continue receiving services from OCDS. Information shared by a student to an OCDS Counselor will be kept in strictest confidence.

### **Office of Career Services UDC-CC**

The Office of Career Services (OCS) is responsible for assisting students with career exploration, enrichment, personal discovery, and professional development. The office assists students who are just beginning their academic and career paths, or for those who are at any point along the path to higher education. OCS works in concert with the Student Success team and conducts academic and professional workshops/events, such as resume writing, mock interviews, on-campus recruiting, and information fairs. UDC-CC students can also obtain one-on-one assistance or consultation regarding internships/externships, identifying careers, and conducting a job search. For more information, please call 202.274.6413.



## UDC-CC's Office of Academic Affairs

The Office of Academic Affairs (OAA) is committed to the pursuit of excellence in all of the College's academic activities. The goal of OAA is to attract and retain the best faculty and staff to assist in offering an outstanding education for the students of UDC-CC. The cumulative programs are designed to provide opportunities for the students to obtain the requisite skills for today's workforce and to prepare for the needs of tomorrow.

OAA's major responsibilities include academic planning, assessment of learning, two-year degree programs, and support services; academic policy; academic services; budgets; faculty affairs and professional development, governance, appointments, and advancements; research, administrative support and compliance; institutional research, and producing the College's 2-year undergraduate catalog information. Also, OAA is responsible for helping both students and faculty achieve academic and professional goals.

The College is organized into the following academic clusters and programs: **Business, Social Sciences, and Liberal Studies; Early Childhood Education; Graphic Design, Graphic Communication Technology, and Music; English, ESL, Public Speaking, and World Languages; Life and Physical Sciences; Math and Engineering;** and the allied health programs of **Mortuary Science, Nursing, and Respiratory Therapy**. The academic clusters are led by faculty program coordinators; allied health programs are led by program directors.

UDC-CC offers 23 degree programs and certificate programs in its Workforce Development and Lifelong Learning Division. Academic disciplines serve as service courses for allied health programs and general education requirements. These disciplines include but are not limited to: Biology, Chemistry, English, ESL, Geography, Mathematics, Physics, Public Speaking, and Urban Studies. Another part integral to increasing student success is the First Year Seminar, a course that is designed to introduce students to college work, career development, and psychosocial dynamics that contribute to academic achievement and becoming goal-oriented. Finally, UDC-CC offers developmental education courses in reading, math and English for students whose skills and abilities need improvement in these areas; however, the College's long term goal is to reduce the enrollment in these courses and design alternative methods, such as supplemental instruction and accelerated learning, to move these students more quickly towards college-level courses in English and math

## Graduation Requirements: Associate Degree

All students must meet the following requirements to earn an associate's degree from UDC:

- Residency: The University confers the associate's degree upon students who complete the last 15 semester credit hours of study in residence at the University of the District of Columbia. Additionally, students must attain a minimum cumulative grade point average of 2.00.
- Listed below are the university-wide requirements needed to complete an associate's degree at the University of the District of Columbia.
- A minimum of 60 credit hours of college-level courses is required, including specific courses identified in the departmental program of study and the applicable University-wide requirements.

## Community College Honors

If you are pursuing a two-year degree, you are eligible to graduate with honors if you have received 60 percent of the credits earned for graduation at the University of the District of Columbia, and earned a 3.30 cumulative grade point average in all attempted.

## Academic Programs

### Business, Social Sciences, and Liberal Studies Cluster

#### Liberal Studies

Liberal Studies AA

Liberal Studies AS

#### Business

Administrative Office Management AAS

Business Administration AAS

Business Technology AAS

Computer Accounting Technology AAS

Fashion Merchandising AAS

Hospitality Management & Tourism AAS

#### Social Science

Corrections Administration AAS

Law Enforcement AAS

Legal Assistant AAS

### Early Childhood Education Cluster

#### Education AA

*Infant / Toddler Education*

*Early Childhood / School Age (PreK-Grade 3)*

*General Education (Elementary and Secondary)*

### Visual and Performing Arts Cluster

Graphic Communication Technology AAS

Graphic Design AA

Music AA

### Science Technology Engineering Mathematics –STEM Cluster

Architectural Engineering Technology AAS

Automotive Technology AAS

Aviation Maintenance Technology AAS

Construction Management AAS

Computer Science Technology AAS

Fires Science AAS

### Allied Health Cluster

Mortuary Science AAS

Nursing AASN

Respiratory Therapy AAS

Nursing Assistant Certificate

Practical Nursing Certificate



## University of the District of Columbia-Community College (UDC-CC)

### English, ESL, World Languages, & Public Speaking

The English, ESL, World Languages, and Public Speaking cluster offers a wide range of courses that are learner-focused and market-driven to respond to the individual education and career goals of our student population. In keeping with the mission of the community college, these courses provide students with the written and oral communication skills and competencies that will enable them to advance successfully in their chosen academic careers. Moreover, several of the courses are designed as online offerings to meet the needs of our working population.

In addition, a specialized course in Technical Writing is available to those students who are pursuing a health science career such as nursing. This course focuses on the professional communication skills and tools that are characteristic in these areas. In response to global communications demands, students who are eager to learn another language may enroll in beginning and intermediate French and Spanish courses. For those students who are non-native speakers, courses are offered in both intermediate and advanced level English as a Second Language which focus on language skills using an interactive approach.

For those students who may need to refresh their writing, reading, and critical thinking skills, the developmental English and Reading Improvement courses are designed to provide reinforcement of the fundamentals that are essential before progressing to the next level in English.

In order to satisfy the English communications segment of the general education requirements, qualified students may enroll in English Composition I and II which focus on developing clear and effective expository writing skills by exploring, explaining, and identifying the steps involved in the writing process.

Although no two-year degrees are offered in English, ESL, World Languages, and Public Speaking, these courses equip students with gateway skills which transfer to a four-year baccalaureate program.

### Life and Physical Sciences

The Life and Physical Sciences cluster offers a host of basic and applied science courses which prepare students to matriculate into associate and bachelor degree programs in science related disciplines. Careers stemming from these disciplines include nursing, marine biologist, laboratory research assistant, environmental analyst, dietician, food technologist, and biotechnologist. Many of our students enter and complete allied health programs (e.g. respiratory therapy) and professional schools (e.g. medical, dental). In addition, courses prepare students to pursue teaching and research careers in science.

Consistent with the mission of the community college, the Life and Physical Sciences cluster offers educational opportunities to students seeking academic preparation to meet the demands of a changing technological world. Our talented faculty is devoted to teaching, learning, and research. They serve as advisors in terms of providing students guidance in selecting and pursuing career paths in science and preparation for life after graduation.

In addition, faculty members utilize and develop the latest pedagogy in which to foster insight and comprehension of science as related to specific disciplines and society as a whole. Faculty members procure research grants from private, state, and federal agencies and perform a variety of public service activities.

To date, courses offered in the Life and Physical Sciences cluster serve as a support cluster for the nursing and respiratory therapy programs at the University of the District of Columbia Community College. This cluster does not confer an associate degree.

### Mathematics and Engineering

The Mathematics and Engineering cluster offers a host of basic and non-basic mathematics courses which prepare students to matriculate into associate and bachelor degree programs in science- and non-science related disciplines. The mathematics courses are currently viewed as service courses. Careers stemming from the supported disciplines include nursing, architecture, auto technology, construction management, aviation mechanics technology, computer programming, and computer hardware/software technicians.

#### Mathematics Course Offerings

These courses provide the student guidance in selecting and pursuing career paths in science and preparation for life after graduation.

*It is noted that to date, courses offered in the math component of the Math and Engineering Cluster serve as a support for many programs throughout the University of the District of Columbia Community College. This cluster does not yet confer an associate degree in mathematics.*



## University of the District of Columbia-Community College (UDC-CC)

### Liberal Studies - AA or AS

The Liberal Studies program is designed to fulfill the needs of those students who:

- want to complete the first two years of an undergraduate degree in a Community College environment and then transfer to a four-year institution,
- are undecided about their educational goals and need an opportunity to explore their interests, or
- may be interested in obtaining only a two-year liberal studies degree.

The Liberal Studies program offers an associate degree that is equivalent to the first two years of a Bachelor of Arts or a Bachelor of Science degree program, prepares students for transfer to four-year degree programs at the University of the District of Columbia as well as other institutions, allows room for additional liberal arts/general education requirements not required by UDC-CC's Associate of Arts or Associate of Science degree but may be required in a four-year program to which the student may decide to transfer, and allows for an area of concentration, special interest, or prerequisites for a transfer program.

Students may choose either an Associate of Science (A.S.) or an Associate of Arts (A.A.) degree. Students interested in focusing on mathematics or the sciences should choose the Associate of Science degree. Students interested in focusing in the arts or humanities should choose the Associate of Arts degree. Students unsure of their major may choose either degree or make the selection towards the end of their program. Either of the programs gives the student the flexibility to fulfill the lower-division general education requirements for transfer and to pursue a major interest or fulfill prerequisites.

#### *The Liberal Studies program consists of 63 credits:*

36 credits - required liberal arts courses

15 credits - elective liberal arts courses (which the student may use to meet further four-year requirements needed to transfer)

12 credits - electives in an area of concentration, exploration, special interest, or prerequisites

#### A.A. or AS. Liberal Studies

Total Credit Hours: 63

Course number	Course name	Credit hours
UNIV 101	Freshman Orientation	1
ENGL 111	English Composition I	3
ENGL 112	English Composition II	3
	Oral Communication	3
	Philosophy	3
	Behavioral/Social Sciences	6
	Natural Science w/ Lab	8
	Arts/Humanities for AA Liberal Studies	6
	Arts/Humanities for AS Liberal Studies	3
	Mathematics for AA Liberal Studies	3
	Mathematics for AS Liberal Studies	6
	Liberal Arts electives	15
	Area of Concentration	12

#### *Special Notations::*

*\* Program requirements are subject to change. Please check with the Community College to learn current program requirements.*



## University of the District of Columbia-Community College (UDC-CC)

### Administrative Office Management

The Associate in Applied Science in Administrative Office Management focuses on training students to operate proficiently a number of information processing systems and prepares them to adjust to future technological changes in the work place. Courses taken in the associate degree program may be applied toward a 4-year business degree at UDC.

#### A.A.S Administrative Office Management

##### Total Credit Hours: 62-63

First Semester		
Course #	Course Title	Credits
FESM 101C	First Year Seminar	1
ENGL 111C	English Composition I	3
MATH 117C	Business Mathematics I OR	3
MATH 116C	Finite Mathematics	3
OADM 104C	Introduction to Business	3
	Business Elective	3
	Natural Science Elective	3
	Natural Science Elective Lab	1
	Total Credit Hours:	17
Second Semester		
ENGL 112C	English Composition II	3
MATH 118C	Business Mathematics II OR	3
MATH 215C	Calculus for Business, Social & Life Sci.	4
IPTC 206C	Office Procedures	3
OADM 120C	Computer Applications in Business	3
	Total Credit Hours:	15/ 16
Third Semester		
ACCT 201C	Principles of Accounting I	3
ECON 201C	Principles of Macroeconomics	3
IPTC 211C	Word I	3
OADM 208C	Business Communications	3
GRTC 107C	Intro to Desktop Publishing	2
GRTC 108C	Intro to Desktop Publishing Lab	1
	Fine Arts Elective	3
	Total Credit Hours:	18
Fourth Semester		
ACCT 202C	Principles of Accounting II	3
ECON 202C	Principles of Microeconomics	3
IPTC 212C	Word II	3
*BSEF 220C	Business Statistics	3
	Business Elective	3
	Total Credit Hours:	15

**Special Notations: English and Mathematics courses may require pre-requisites depending upon results of ACCUPLACER Placement Test.**

**A "C" or better is required for all business courses and economics.**



## University of the District of Columbia-Community College (UDC-CC)

### Business Administration

The Associate in Applied Science degree is designed to provide students with the knowledge required for entry-level positions in business, industry, and government. Also, it is designed to provide the essential skills needed for business startups and the operation of small business enterprises. Students must receive a grade "C" or better in all business requirements. Courses taken in this program may be applied toward the Bachelor of Science in Business Administration degree.

#### A.A.S. Business Administration

Total Credit Hours: 62-63

First Semester		
Course #	Course Title	Credits
FSEM-101c	First Year Seminar	1
ENGL-111c	English Composition I	3
MATH-117C	Business Mathematics I OR	3
MATH-116C	Finite Mathematics	3
OADM-104C	Introduction to Business	3
SPCH-115C	Public Speaking	3
	Fine Arts Elective	3
	Total Credit Hours:	16
Second Semester		
ENGL-112C	English Composition II	3
MATH-118C	Business Mathematics II OR	3
MATH-215C	Calculus for Business, Social & Life Sci.	4
APCT-104C	Intro to Applications of Comp	2
APCT-105C	Intro to Applications of Comp lab	1
ECON-201C	Principles of Macroeconomics	3
	Natural Science Elective w/ lab	4
	Total Credit Hours:	16/17
Third Semester		
ACCT-201C	Principles of Accounting I	3
ECON-202C	Principles of Microeconomics	3
MGTC-221C	Supervision	3
OADM-208C	Business Communications	3
BLPC-214C	Legal Environment of Business	3
	Total Credit Hours:	15
Fourth Semester		
ACCT-202C	Principles of Accounting II	3
MGTC-246C	Salesmanship Princ & Prac	3
BSEFC-220	Business Statistics	3
PSYC-201C	Principles of Psychology I	3
	Business Elective	3
	Total Credit Hours:	15

#### Special Notations:

*English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.*

*A "C" or better is required for all business and economics courses .*

*Throughout the document prerequisites are absent.*



## University of the District of Columbia-Community College (UDC-CC)

### Computer Accounting Technology

The Associate in Applied Science degree in Computer Accounting Technology is designed to prepare students to become technicians or accounting clerks and to operate and maintain a microcomputer-oriented, general accounting system. The program trains students to enter the job market in semiprofessional categories. Also, it provides students with the background necessary for matriculation in the Bachelor's program in accounting. The use of cooperative job assignments is encouraged to provide students with practical accounting experience.

#### A.A.S. Computer Accounting Technology

##### Total Credit Hours 62

First Semester		
Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition I	3
MATH-117C	Business Mathematics I	3
PHIL-105C	Introduction to Logic	3
OADM-104C	Introduction to Business	3
ACCT-201C	Principles of Accounting I	3
<b>Total Credit Hours:</b>		<b>16</b>
Second Semester		
ENGL-112C	English Composition II	3
MATH-215C	Calculus for Business, Social and Life Sciences	4
ACCT-202C	Principles of Accounting II	3
APCT-104C	Intro to Applications of Comp	2
APCT-105C	Intro to Applications of Comp lab	1
*ACCT-312	Fed Income Tax Accounting I (*flagship)	3
<b>Total Credit Hours:</b>		<b>16</b>
Third Semester		
*ACCT-301	Intermediate Accounting I (*flagship)	3
*ACCT-325	Cost Accounting (*flagship)	3
BLPC-214C	Legal Environment of Business	3
	Accounting Elective	3
	Natural Science Elective w/ Lab	4
<b>Total Credit Hours:</b>		<b>16</b>
Fourth Semester		
ECON-201C	Principles of Macroeconomics	3
*ACCT-302	Intermediate Accounting II (*flagship)	3
*ACCT-407	Accounting for Info Systems (*flagship)	3
*BLPC-318	Commercial Law (*flagship)	3
	Accounting Elective	3
<b>Total Credit Hours:</b>		<b>15</b>

#### Special Notations:

*English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.*

*A "C" or better is required for all business and economics courses .*

*Throughout the document prerequisites are absent*





## University of the District of Columbia-Community College (UDC-CC)

### Hospitality Management and Tourism

The Associate in Applied Sciences degree in Hospitality Management and Tourism provides students with the knowledge and skills needed to serve in entry positions in the hospitality industry—the second largest industry in the Washington metropolitan area. The program is designed for three groups of students: those who want to start careers in the hospitality industry, those who are already employed in a hospitality service organization but want to add to knowledge and skills, and those who are interested in making a career change. The program provides an overview of the basic elements of hospitality service management, specifically, planning, organizing, leading and controlling. Also, the program covers hotels and restaurants, and exposes students to the legal and marketing aspects of hospitality services organization.

#### A.A.S. Hospitality and Tourism

##### Total Credit Hours 62

###### First Semester

Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition I	3
MATH-117C	Business Mathematics I	3
HMGT-104C	Intro to Hospitality Industry	3
	Foreign Language Elective	3
	Supervision or Business Elective	3
	<b>Total Credit Hours:</b>	<b>16</b>

###### Second Semester

Course #	Course Title	Credits
ENGL-112C	English Composition II	3
MATH-118C	Business Mathematics II	3
HMGT-204C	Intro to Hotel Management	3
	Foreign Language Elective	3
	Natural Science Elective w/Lab	4
	<b>Total Credit Hours:</b>	<b>16</b>

###### Third Semester

Course #	Course	Credits
HMGT-206C	Food and Beverage Management	3
HMGT-208C	Restaurant Management	3
HMGT-212C	Cost Control in Hosp. Mgmt.	3
OADM-208C	Business Communications	3
PSYC-201C	Principles of Psychology I	3
	<b>Total Credit Hours:</b>	<b>15</b>

###### Fourth Semester

Course #	Course	Credits
HMGT-214C	Facilities & Housekeeping Mgmt	3
HMGT-216C	Law as Related to Hosp. Industry	3
HMGT-290C	Internship	3
APCT-104C	Intro to Applications of Computers Lec	2
APCT-105C	Intro to Applications of Computers Lab	1
HMGT-218C	Hospitality Accounting	3
	<b>Total Credit Hours:</b>	<b>15</b>

#### Special Notations:

*English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.*



## University of the District of Columbia-Community College (UDC-CC)

### Fashion Merchandising

The Fashion Merchandising program is designed to fulfill the needs of those students who are seeking a career in the business side of the fashion industry. Students in fashion merchandising learn about the planning, production, promotion, and distribution of products in fashion industries to meet consumer demand. Students learn to define and analyze target markets, forecast trends, design and use visual communication, and plan and promote fashion products. Students also gain real-world skills in verbal, written, and visual presentation, computer networking, product development, business communication, and project management.

UDC-CC's Fashion Merchandising graduates will be trained to launch lucrative careers within the District of Columbia by seeking immediate employment in entry level positions primarily as retail buyers, purchasing managers, and fashion product developers. The program fulfills a need to support the District of Columbia in its creation of 3,500 new retail-related jobs through the Mayor's Creative Action Agenda to add one million square feet of new retail space in the District. The Department of Labor has predicted that employment of retail managers in the District of Columbia will grow approximately 15 percent by 2012. UDC-CC's Fashion Merchandising program has already received support from fashion industry giants such as Tommy Hilfiger's foundation.

The program will also prepare students with professional experiences. Students will be trained to work as interns at major fashion companies, sponsored by partnerships with corporations and internationally renowned organizations like Fashion Group International (FGI) and the Black Retail Action Group (BRAG), among others. The UDC-CC Fashion Merchandising program consists of 62 credit hours: 26 hours of liberal arts courses and 36 hours of Fashion Merchandising courses including one elective, an internship, and a capstone course. All core courses are held on the Backus Campus, Building 54.

#### A.A.S. Fashion Merchandising Total Credit Hours 62

First Semester		
Course #	Course Title	Credits
FSEM-101C	Freshman Orientation	1
ENGL-111C	English Composition I	3
MATH-117C	Business Math I	3
SPCH-115C	Public Speaking	3
FSMD-101C	Fashion Merchandising Fundamentals	3
FSMD-103C	Principles of Clothing Construction I	3
<b>Total Credit Hours:</b>		<b>16</b>
Second Semester		
ENGL-112C	English Composition II	3
MATH-118C	Business Math II	3
GRCT-109C	Digital Applications	3
FSMD-121C	Textiles	3
FSMD-104C	Principles of Clothing Construction II	3
<b>Total Credit Hours:</b>		<b>15</b>
Third Semester		
	Arts and Humanities elective	3
FSMD-225C	Principles of Retail Buying	3
FSMD-242C	Introduction to the Business of Fashion Merchandising	3
FSMD-296C	Internship - Fashion Industry	3
	Independent Study (need dept. approval)	3
	Behavioral/Social Science Elective	3
<b>Total Credit Hours:</b>		<b>15</b>
Fourth Semester		
FSMD-255C	Trend Forecasting I	3
FSMD-261C	Intro to Fashion Marketing	3
	Natural Science w/ Lab elective	4
	Fashion Merchandising Elective	3
FSMD-299C	Fashion Merchandising Capstone	3
<b>Total Credit Hours:</b>		<b>16</b>

**Special Notations:** English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test. Electives: Fashion in the Urban Marketplace, History of Costume, Color Theory Science, Advanced Textiles



## University of the District of Columbia-Community College (UDC-CC)

### Corrections Administration

The Criminal Justice program offers an interdisciplinary course of study leading to associate and baccalaureate degrees in criminal justice. The associate in applied science program requires students to concentrate studies in corrections or in law enforcement. The curriculum includes policy and legal issues, qualitative and quantitative research, interpersonal relations, and administrative procedures.

It integrates writing, computer, and verbal communications skills throughout the program. Computer-based research and analysis play a pivotal role in the criminal justice field. Therefore, students are required in some cases, and encouraged in others, to also take advantage of computer-based courses in the Geography program.

The Criminal Justice program also encourages self-directed intellectual inquiry, problem solving, ethics, and a commitment to human rights as important professional values by offering opportunities for experimental learning both in the classroom and in a variety of criminal justice agencies. Criminal Justice is ranked in the top 100 career fields in both the public and private sectors. While undergraduate degrees offer entry-level opportunities, upward mobility requires advanced degrees.

#### A.A.S. Corrections Administration

##### Total Credit Hours : 65

<i>First Semester</i>		
Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition I	3
MATH-101C	General College Math I	3
POLI-206C	Intro to American Government	3
CRIM-100C	Criminal Justice Systems	3
CRIM-102C	Criminology	3
Total Credit Hours:		16
<i>Second Semester</i>		
ENGL-112C	English Composition II	3
MATH-102C	General College Math II	3
PSYC-137C	Psychology of Adjustment OR	3
CRIM-271C	Dynamics of Human Relations	3
CRIM-203C	Forensic Sciences/Investigations	3
	Natural Science Elective w/Lab	4
Total Credit Hours:		16
<i>Third Semester</i>		
CRIM-222C	Criminal Procedures	3
CRIM-224C	Issues in Criminal Law	3
CRIM-232C	Criminal Behavior	3
CRIM-234C	Juvenile Justice Systems	3
CRIM-272C	Conflict Resolution/Mediation	3
Total Credit Hours:		15
<i>Fourth Semester</i>		
CRIM-175C	Geo-spatial Analysis	3
CRIM-221C	Investigations	3
	Corrections Special Topics OR	9
	Law Enforcement Special Topics	9
Total Credit Hours:		18

**Special Notations:** English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test. A "C" or better is required for all courses in the major. For special topics courses, students may take any course numbered 4125-294 or 4177-111 Sociology, 4179-104 The Urban Experience, 4179-105 Introduction to Social Science, 4179-205 Urban Poverty, or 4179-106 History of the District of Columbia



## University of the District of Columbia-Community College (UDC-CC)

### Law Enforcement

The Criminal Justice program offers an interdisciplinary course of study leading to associate and baccalaureate degrees in criminal justice. The associate in applied science requires students to concentrate their studies in corrections or in law enforcement. The curriculum includes policy and legal issues, qualitative and quantitative research, interpersonal relations and administrative procedures. It integrates writing, computer, and verbal communications skills throughout the program. Computer-based research and analysis play a pivotal role in the criminal justice field. Students, therefore, are required in some cases, and encouraged in others, to also take advantage of computer-based courses in the Geography program.

The Criminal Justice program encourages self-directed intellectual inquiry, problem solving, ethics, and a commitment to human rights as important professional values by offering opportunities for experimental learning both in the classroom and in a variety of Criminal Justice agencies. Criminal Justice is ranked in the top 100 for employment opportunities with both public and private sector career options available. While undergraduate degrees offer entry-level opportunities, upward mobility requires advanced degrees.

#### A.A.S. Law Enforcement

##### Total Credit Hours : 65

First Semester		
Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition I	3
MATH-101C	General College Math I	3
POLI-206C	Intro to American Government	3
CRIM-100C	Criminal Justice Systems	3
CRIM-102C	Criminology	3
<b>Total Credit Hours:</b>		<b>16</b>
Second Semester		
ENGL-112C	English Composition II	3
MATH-102C	General College Math II	3
PSYC-137C	Psychology of Adjustment <b>OR</b>	3
CRIM-271C	Dynamics of Human Relations	3
CRIM-203C	Forensic Sciences/Investigations	3
	Natural Science Elective w/Lab	4
<b>Total Credit Hours:</b>		<b>16</b>
Third Semester		
CRIM-222C	Criminal Procedures	3
CRIM-224C	Issues in Criminal Law	3
CRIM-232C	Criminal Behavior	3
CRIM-234C	Juvenile Justice Systems	3
CRIM-272C	Conflict Resolution/Mediation	3
<b>Total Credit Hours:</b>		<b>15</b>
Fourth Semester		
CRIM-175C	Geo-spatial Analysis	3
CRIM	Ethics and Public Service	3
CRIM-221C	Investigations	3
	Corrections Special Topics <b>OR</b>	9
	Law Enforcement Special Topics	9
<b>Total Credit Hours:</b>		<b>18</b>

**Special Notations:** English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test. A "C" or better is required for all courses in the major. For special topics courses, students may take any course numbered 4125-294 or 4177-111 Sociology, 4179-104 The Urban Experience, 4179-105 Introduction to Social Science, 4179-205 Urban Poverty, or 4179-106 History of the District of Columbia



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## University of the District of Columbia-Community College (UDC-CC)

### Legal Assistant

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This program provides for a practical career and early job placement in the legal environment field and leads to the Associate in Applied Science degree. Requirements for the completion of the paralegal program are 62 credit hours.

#### A.A.S. Legal Assistant

**Total Credit Hours: 62**

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##### First Semester

Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition I	3
MATH-101	General College Math I	3
LATC-161C	Legal Research & Writing I	3
LATC-181C	Intro to Paralegalism	3
APCT-104C	Intro to Applications of Comp	2
APCT-105C	Intro to Applications of Comp lab	1
<b>Total Credit Hours:</b>		<b>16</b>

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##### Second Semester

ENGL-112C	English Composition II	3
MATH-102C	General College Math II	3
LATC-162C	Legal Research & Writing II	3
LATC-171C	Legal Process I	3
OADM-104C	Introduction to Business	3
<b>Total Credit Hours:</b>		<b>15</b>

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##### Third Semester

BLPC-214C	Legal Environment of Business	3
LATC-263C	Investigative Techniques/Evidence	3
	Business or Law Elective	3
	Legal Assistant Elective	3
	Natural Science Elective w/ Lab	4
<b>Total Credit Hours:</b>		<b>16</b>

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##### Fourth Semester

LATC-278C	Law Office Administration	3
	Business or Law Elective	3
	Legal Assistant Elective	3
	Legal Assistant Elective	3
	Social Science Elective	3
<b>Total Credit Hours:</b>		<b>15</b>

**Special Notations:** *English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test. A "C" or better is required for all courses in the major.*



## University of the District of Columbia-Community College (UDC-CC)

### Early Childhood Education Infant / Toddler Education Option I

The Associate in Arts degree in Education provides a comprehensive background in developmental theory, emphasizing the practical application of theory to appropriate environments for culturally, linguistically, and developmentally diverse children. The program includes development from the physiological, psychological, cognitive, and sociological perspectives for children from birth through adolescence.

The curriculum is designed to meet the needs of adults working in various early childhood settings, including both public and private day care homes, child development centers, kindergartens, Head Start, and pre-school and school-age care programs. The program complements the competency requirements for the Child Development Associate (CDA) credential and the standards set by the National Association for the Education of Young Children (NAEYC).

Candidates must complete practicum and field experiences which are critical to many courses in the curriculum. The UDC Child Development Center serves as the practicum and field experience site for students in the program. Before- and after-school programs in the District of Columbia Public Schools and Recreation Department may also serve as experience sites.

#### *Education: Infant / Toddler Education Option I*

Total Credit Hours: 62

First Semester		
Course #	Course Title	Credits
FSEM- 101C	First Year Seminar	1
ENGL- 111C	English Composition I	3
MATH-101C	General College Mathematics I	3
SPCH- 115C	Public Speaking <b>OR</b>	3
GEOG-105C	World Cultural Geography	3
ECED-104C	History and Philosophy of ECE	3
<b>Total Credit Hours</b>		<b>16</b>
Second Semester		
ENGL-112C	English Composition II	3
MATH-102C	General College Mathematics II	3
ENSC-107C	Integrated Science I	3
ENSC-109C	Integrated Science I Laboratory	1
ECED-105C	Principles of Child Development	3
	Elective	3
<b>Total Credit Hours</b>		<b>16</b>
Third Semester		
ECED-206C	Infant Education	3
ECED-245C	Child in the Family	3
ECED-230C	Practicum I	3
SPED-204C	Intro to the Education of Exceptional Children	3
ECED-207C	Understanding Self and Relationships	3
<b>Total Credit Hours</b>		<b>15</b>
Fourth Semester		
ECED- 224C	Planning & Administering ECE Programs	3
ECED-208C	Emergent Literacy	3
ECED-231C	Practicum II	3
ECED-204C	Curriculum Content in ECE	3
	Elective	3
<b>Total Credit Hours</b>		<b>15</b>

**Special Notations:** English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test. Suggested electives: Children's Literature, Nutrition, and Computer Applications.



## University of the District of Columbia-Community College (UDC-CC)

### Early Childhood Education Early Childhood/School Age (Pre-K – Grade 3) Option II

The Associate in Arts degree in Education provides a comprehensive background in developmental theory, emphasizing the practical application of theory to appropriate environments for culturally, linguistically, and developmentally diverse children. The program includes development from the physiological, psychological, cognitive, and sociological perspectives for children from birth through adolescence.

The curriculum is designed to meet the needs of adults working in various early childhood settings, including both public and private day care homes, child development centers, kindergartens, Head Start, and pre-school and school-age care programs. The program complements the competency requirements for the Child Development Associate (CDA) credential and the standards set by the National Association for the Education of Young Children (NAEYC).

Candidates must complete practicum and field experiences which are critical to many courses in the curriculum. The UDC Child Development Center serves as the practicum and field experience site for students in the program. Before- and after-school programs in the District of Columbia Public Schools and Recreation Department may also serve as experience sites.

#### Education: Early Childhood/School Age (Pre-K – Grade 3) Option II

First Semester		
Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition I	3
MATH-101C	General College Mathematics I	3
SPCH-115C	Public Speaking <b>OR</b>	3
SPCH-116C	Voice and Articulation	3
GEOG-105C	World Cultural Geography	3
ECED-104C	History and Philosophy of ECE	3
<b>Total Credit Hours</b>		<b>16</b>
Second Semester		
ENGL-112C	English Composition II	3
MATH-102C	General College Mathematics II	3
ENSC-107C	Integrated Science I	3
ENSC-109C	Integrated Science I Laboratory	1
ECED-105C	Principles of Child Development	3
	Elective	3
<b>Total Credit Hours</b>		<b>16</b>
Third Semester		
ECED-204C	Curriculum Content in ECE	3
ECED-245C	Child in the Family	3
ECED-230C	Practicum I	3
SPED-204C	Intro to the Education of Exceptional Children	3
ECED-207C	Understanding Self and Relationships	3
<b>Total Credit Hours</b>		<b>15</b>
Fourth Semester		
ECED- 224C	Planning & Administering ECE Programs	3
ECED-208C	Emergent Literacy	3
ECED-231C	Practicum II	3
ECED-209C	Play Activities	3
	Elective	3
<b>Total Credit Hours</b>		<b>15</b>

Total Credit Hours for A.A. Degree in Education Option II: 62

**Special Notations:** English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test. Suggested electives: Children's Literature, Nutrition, and Computer Applications.



## University of the District of Columbia-Community College (UDC-CC)

### Early Childhood Education Early Childhood (Elementary)–Option III

The Associate in Arts degree in Education provides a comprehensive background in developmental theory, emphasizing the practical application of theory to appropriate environments for culturally, linguistically, and developmentally diverse children. The program includes development from the physiological, psychological, cognitive, and sociological perspectives for children from birth through adolescence.

The curriculum is designed to meet the needs of adults working in various early childhood settings, including both public and private day care homes, child development centers, kindergartens, Head Start, and pre-school and school-age care programs. The program complements the competency requirements for the Child Development Associate (CDA) credential and the standards set by the National Association for the Education of Young Children (NAEYC).

Candidates must complete practicum and field experiences which are critical to many courses in the curriculum.

#### *Education: Early Childhood (Elementary)–OPTION III*

Fall Semester - First Year		
Course#	Course Title	Credit
ENGL-111C	English Composition I	3
MATH-101C	General College Mathematics I	3
SPCH-115C	Public Speaking	3
GEOG-105C	World Cultural Geography	3
EDFN-204C	Guiding Functions of the Teacher	3
<b>Total</b>		<b>15</b>
Spring Semester - First Year		
ENGL-112C	English Composition II	3
MATH-102C	General College Mathematics II	3
ENSC-107C	Integrated Science I (Lecture)	3
ENSC-109C	Integrated Science I (Lab)	1
PHIL-105C	Introduction to Logic	3
EDPY-244C	Human Development & Behavior	3
<b>Total</b>		<b>16</b>
Fall Semester - Second Year		
ECED-214C	Teacher, Child, School & Community Interactions	3
EDFN-220C	Foundations of Education	3
ECED-230C	Practicum I (Elementary/Secondary)	3
SPED-204C	Intro to the Education of Exceptional Children	3
	Elective	2
<b>Total</b>		<b>14</b>
Spring – Second Year		
RDNG-204C	Tech for Aides in Read/Lang	3
EDPY-214C	Educational Psychology	3
ECED-231C	Practicum II (Elementary/Secondary)	3
EDFN-205C	Classroom Management	3
	Elective	3
<b>Total</b>		<b>15</b>

#### **Electives\* (5 Semester Hours)**

Suggested Electives: Children's Literature, Children & Youth in Urban Schools, Nutrition

**Total Credit Hours for A.A. Degree in Education Option III: 62**

**Special Notations: English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.**





## University of the District of Columbia-Community College (UDC-CC)

### Graphic Design

The two-year Associate's Degree in Graphic Design program offers a variety of courses in the aesthetic, technical, and theoretical aspects of graphic design. Those who complete the two-year program are eligible to transfer to the UDC Bachelor of Fine Arts in Graphic Design, provided they successfully pass the portfolio review and maintain a "B" average in all major courses.

Courses are taught in labs with up-to-date technology and cover the major areas of the graphic design field, including illustration, logo design, web design, and animation. Students are prepared with solid skills in conceptual thinking, drawing, color theory, art and design history, as well as knowledge of the computer programs essential to success in the field. The program gives students the opportunity to merge imagination with technique to produce cutting-edge design work.

Graduates pursue professional opportunities in various design disciplines. A degree in graphic design is the first step to a career in art direction, web design, publication design, illustration, animation, or any number of disciplines in communication design. All core courses are held at the Van Ness campus, 4200 Connecticut Avenue NW

#### A.A. Degree in Graphic Design Total Credit Hours: 62

First Semester		
Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition	3
MATH=101C	General College Math I	3
ARTD-105C	Foundations I	3
ARTS-101C	Introduction to Drawing	3
GRCT-109C	Digital Applications	3
<b>Total Credit Hours:</b>		<b>16</b>
Second Semester		
ENGL-112C	English Composition II	3
MATH-102C	General College Math II	3
ARTD-124C	Computer Art	3
ARTS-145C	Photography	3
GRCT-107C	Desktop Publishing Lecture	2
GRCT 107C	Desktop Publishing Lab	1
ARTS-115C	Visual Thinking	3
<b>Total Credits</b>		<b>18</b>
Third Semester		
ARTD-113C	Graphic Design I	3
ARTD-201C	Computer Illustration	3
ARTD-126C	Typography	3
GRCT-113C	Digital Imaging I Lecture	2
GRCT-114C	Digital Imaging I Lab	1
	Natural Science Lecture and Lab	4
<b>Total Credits</b>		<b>16</b>
Fourth Semester		
ARTD-213C	Publication Design	3
ARTS-207C	Web Design	3
ARTD-208C	History of Graphic Design	3
ARTD-275C	Portfolio and Marketing Workshop	3
<b>Total Credits</b>		<b>12</b>

#### Special Notations:

*English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.*

*After completing the 2-year program, graphic design students interested in the 4-year Bachelor's Degree in Fine Arts/Graphic Design program should submit an application and a portfolio. Student must have a "B" average in all major courses, and entry into the B.F.A program is granted to applicants who have successfully passed the portfolio review.*

#### General Education requirements for two-year associate's degree include:

- English Composition 6 hours
- \*Social Sciences 3 hours
- Mathematics (100 level or above) 3 hours
- Natural Sciences and Lab 4 hours

*\*Social Science courses may be selected from the offerings in Psychology, Sociology, Economics, History, Social Welfare, Geography, Political Science, and Urban Studies. Students enrolled in the 2-year program may substitute one 3-credit hour course in Philosophy for the required Social Science.*



## University of the District of Columbia-Community College (UDC-CC)

### Graphic Communications Technology

The Graphic Communications Technology program is designed to provide students with an educational experience which focuses heavily on design and digital pre-press, with additional experiences in both press and post-press production. The curriculum gives majors the opportunity to experience a full range of technical experiences from print, to multimedia and photography, to management, procurement, and entrepreneurship. The program emphasizes technological concepts and preparing students for the world of work. In addition to the AAS degree option, the program offers interested students a certificate in Desktop Publishing. All core courses are held at the Van Ness Campus, 4200 Connecticut Avenue NW.

#### AAS Graphic Communications Technology

Total Credit Hours: 62

First Semester		
Course #	Course Title	Credits
FSEM-101C	First Year Seminar	1
ENGL-111C	English Composition I	3
MATH-101C	General College Math I	3
ARTD-105C	Foundations I	3
GRCT-107C	Intro to Desktop Publishing Lec	2
GRCT-108C	Intro to Desktop Publishing Lab	1
GRCT-109C	Digital Applications	3
Total Credit Hours		16
Second Semester		
ENGL-112C	English Composition II	3
MATH-102C	General College Math II	3
ARTD-113C	Graphic Design I	3
ARTD-126C	Typography	3
GRCT-113C	Digital Imaging Lecture	2
GRCT-114C	Digital Imaging Lab	1
Total Credit Hours		15
Third Semester		
CMOP-235C	Intro to Web Page Dev & HTML Lec	2
CMOP-236C	Intro to Web Page Dev & HTML Lab	1
ARTD-207C	Web Design	3
GRCT-210C	Color Management Lecture	2
GRCT-211C	Color Management Lab	1
ARTD-213C	Publication Design (*flagship)	3
	Program Core Elective	3
Total Credit Hours		15
Fourth Semester		
GRCT-209C	Graphic Management	3
GRCT-214C	Design to Print Practicum Lec	2
GRCT-215C	Design to Print Practicum Lab	1
ARTS-145C	Photography (*flagship)	3
	Social Science Elective	3
	Natural Science Elective w/Lab	4
Total Credit Hours		16

*Special Notations: English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.*



## University of the District of Columbia-Community College (UDC-CC)

### Architectural Engineering Technology

The architecture program, which leads to the Associate in Applied Science (AAS) degree in Architectural Engineering Technology (AET), prepares students for entry level employment in private sector architectural, consulting engineering, and construction firms, and related governmental agencies. The AAS degree in the AET program also satisfies the first two years of the 4 year Bachelor of Science in Architecture/1.5 year Master in Architecture degree programs at UDC, and similar degree programs at other institutions. This feature of the program accommodates those students whose career objective is to become a licensed professional architect. The AET program's studios and classes are offered in the late evenings and on Saturdays to accommodate persons who must work during regular business hours.

#### A.A.S. Degree in Architectural Engineering Technology

First Semester		
Course #	Course Title	Credits
FSEM 101C	First Year Seminar	1
ENGL 111C	English Composition I	3
AETC 101C	Architectural Drawing & Design I	3
MATH 111C	Technical Mathematics I	3
AET 115C	Materials & Methods of Construction I	3
AETC 101C	Introduction to History of Architecture	3
<b>Total Credit Hours</b>		<b>16</b>
Second Semester		
ENGL 112C	English Composition II	3
AETC 102C	Architectural Drawing & Design II	3
MATH 112C	Technical Mathematics II	4
AETC 116C	Materials & Methods of Construction II	3
CMOP 205C	Intro to Computer Aided Design	3
<b>Total Credit Hours</b>		<b>15</b>
Third Semester		
PHYS 101C	Intro to College Physics I Lec	3
PHYS 103C	Intro to College Physics I Lab	1
AETC 201C	Architectural Drawing & Design III	4
CMOP 206C	CADD Doc/Spec & Estimate	3
METC 244C	Mechanical & Electrical Systems	3
	Social Science Elective	3
<b>Total Credit Hours</b>		<b>17</b>
Fourth Semester		
PHYS 102C	Intro to College Physics II Lec	3
PHYS 104C	Intro to College Physics II Lab	1
AETC 202C	Architectural Drawing & Design IV	4
AETC 232C	Structural Design	3
AETC 246C	Environmental Systems II	3
AETC 292C	Seminar	3
<b>Total Credit Hours</b>		<b>17</b>

Total Credit Hours for A.A.S. Degree in Architectural Engineering Technology: 65

**Special Notations:** English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.



## University of the District of Columbia-Community College (UDC-CC)

### Automotive Technology

**Please note: This program is coming soon!**

The Automotive Technology Program (ATP) prepares students for entry level jobs as automobile repair technicians. The program was developed in response to the Bureau of Labor Statistics' projections of the need for automobile service technicians in Washington, DC and the surrounding area. ATP combines shop, classroom, and internship instruction and requires student to complete 69 semester credits, of which 25 credits are general education and required courses, and 44 credits are automotive courses.

Students have the option of substituting three automotive courses with three diesel mechanics courses which would prepare them to specialize in transit bus repair. Full-time students can complete the ATP program in two years and will be prepared as entry-level, automotive repair technicians or entry level transit bus repair technicians. Also, they will be eligible to take the Automotive Service Excellence (A.S.E.) examination after one year's experience. A.S.E. examinations certify automotive technicians in eight specific areas. The UDC-CC program prepares students for certification in six of these areas: brakes, electrical/electronics, engine performance, engine repair, heating and air conditioning, and steering and suspension.

#### A.A.S. Degree in Automotive Technology

**Total Credit Hours: 68-73**

First Semester		
Course #	Course Title	Credits
FESM 101C	First Year Seminar	1
AUTC 101C	Intro to Automotive Technology	4
AUTC 103C	Automotive Brakes	3
APTC 104C	Intro to Applications of Comp	2
APTC 105C	Intro to Applications of Comp lab	1
PHIL 105C	Intro to Logic <b>OR</b>	3
PHIL 108C	Intro to Social Ethics	3
SPCH 115C	Public Speaking	3
<b>Total Credit Hours</b>		<b>17</b>

Second Semester		
Course #	Course Title	Credits
ENGL 111	English Composition I	3
AUTC 140	Automotive Electrical Fundamentals	4
AUTC 115	Ignition and Fuel Systems <b>OR</b>	3
AUTC 116	Transit Bus Fuel Systems	4
AUTC 111	Heating/Air Conditioning	3
AUTC 104	Intro to Business	3
<b>Total Credit Hours</b>		<b>16/17</b>

Third Semester		
Course #	Course	Credits
ENGL 112C	English Composition II	3
MATH 111C	Technical Mathematics I	3
AUTC 225C	Adv. Engine Performance <b>OR</b>	5
AUTC 226C	Transit Bus Electronics	4
AUTC 230C	Auto. Steering & Suspension Systems	3
	Behavioral/Social Science elective	3
<b>Total Credit Hours</b>		<b>16/17</b>

Fourth Semester		
Course #	Course	Credits
AUTC 256C	Manual/Auto Trans. & Drive Systems	6
AUTC 241C	Advanced Auto Electronics	3
AUTC 255C	Auto. Engine Diagnosis & Repair <b>OR</b>	4
AUTC 257C	Transit Bus Engine Mechanics	4
AUTC 299C	Emerging Auto Power Systems	3
<b>Total Credit Hours</b>		<b>16</b>

#### ADDITIONAL

AUTC 290C	Summer Internship (required)	3
AUTC 299C	Winter Internship (optional)	3

**Special Notations: Students pursuing an AAS Automotive Technology degree will select one of two concentrations: Automotive or Transit Bus.**

**English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.**

**Behavioral/Social Science elective choices: Principles of Psychology I, Psychology of Adjustment, Intro to Political Science, Intro to Anthropology, Intro to Sociology**



## University of the District of Columbia-Community College (UDC-CC)

### Aviation Maintenance Technology

#### *Aerospace Technology Program Overview*

UDC's Aerospace Technology Program offers three related paths of training in aviation: the Aircraft Mechanic's Certificate (license), the Aviation Maintenance Technology Program (Associates' Degree), and the Aviation Maintenance Management Program (Bachelor's Degree). All of these aviation activities are centered at UDC's aviation facilities (Hangar #2) at Reagan Washington National Airport, just south of the old main terminal (Terminal A), next to the taxi parking garage.

#### *Certificate of Completion for Aircraft Mechanic's License*

This course of study requires successful completion of 40 academic credit hours (eight courses of five credits each), and is approved by the Federal Aviation Administration (FAA) to provide training for certification (licensing) as an Aircraft Mechanic, with Airframe and Power plant (A&P) rating. This program meets the requirements of Federal Aviation Regulation (FAR) part 147, and includes about 2000 hours of comprehensive lecture and laboratory instruction and experience. The overall instructional program is conducted in accordance with the provisions of the FAR, with FAA monitoring the instructional quality, technology incorporation, and administrative activities of the Program.

Additionally, the FAA monitors student exam performance, attendance, and overall quality of performance. The Program provides diverse training for the student to obtain initial job entry-level skills in the aircraft maintenance industry. Training includes developing knowledge and work skills in 44 areas, including: A&P privileges and regulations, hydraulics, electricity, electronics, metal structures, environmental systems, welding, instrumentation, composite materials, turbine and reciprocating engines, propellers, and related systems. The Program faculty endeavors to provide students with a viable combination of knowledge of contemporary aircraft systems and the skills, knowledge, and attitude of a craftsman-technician. The UDC Certificate of Completion entitles the student to take the FAA administered exams for the A&P license. An average student completes the Certificate program in four semesters (approximately two years).

To earn the A&P license, students must pass three examinations: one written, one oral, and one practical, administered by the FAA. Currently, these exams may be taken at the UDC airport facility.

#### *Aviation Maintenance Technology (AVMT)*

In conjunction with the Certificate Program, a student may take 32 additional credits of instruction and earn an Associate of Applied Science (AAS) in Aviation Maintenance Technology. These additional courses are general education subjects such as technical math, English, physics, geography, graphics, and computer programming, and they are taught on UDC's main campus. See the course calendar at the end of this package for a listing of these courses.

#### **A.A.S. Degree in Aviation Maintenance**

Total Credit Hours: 70

<b>First Semester</b>			
<b>Course #</b>		<b>Course Title</b>	<b>Credits</b>
FESM 101C		First Year Seminar	1
ENGL 111C		English Composition I	3
MATH 111C		Technical Mathematics I	3
AVMT 121C		Aviation Maintenance Fundamentals	5
AVMT 122C		Aviation Mat. & Standards	5
<b>Total Credit Hours</b>			<b>17</b>
<b>Second Semester</b>			
ENGL 112C		English Composition II	3
MATH 112C		Technical Mathematics II	4
AVMT 124C		Aircraft Metallic Structures	5
AVMT 125C		Aircraft Systems and Components	5
APTC 104C		Intro to Applications of Comp	2
APTC 105C		Intro to Applications of Comp lab	1
<b>Total Credit Hours</b>			<b>19</b>
<b>Third Semester</b>			
AVMT 211C		Aircraft Electrical & Electronic Syst.	5
AVMT 212C		Aircraft Turbine Engine Theory & Overhaul	5
PHYS 101C		Intro to College Physics Lec.	3
PHYS 103C		Intro to College Physics Lab	1
GEOG 104C		World Physical Geography	3
<b>Total Credit Hours</b>			<b>17</b>
<b>Fourth Semester</b>			
AVMT 214C		Reciprocating Engine Theory & Overhaul	5
AVMT 215C		Aircraft Engine Systems & Comp.	5
AETC 205C		Introduction to CAD	3
PHYS 102C		Intro to College Physics II Lec.	3
PHYS 104C		Intro to College Physics II Lab	1
<b>Total Credit Hours</b>			<b>17</b>

**Special Notations: English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.**

**The eight classes with asterisks are the only ones required for the A&P Certificate program (40 credit total). They are taught at the Washington Reagan National Airport, Hangar #2.**



## University of the District of Columbia-Community College (UDC-CC)

### Computer Science Technology

The Associate in Applied Science in Computer Science Technology has two options.

The first option (Software and Programming Option) focuses on applications programming. The student is trained in the logic of problem solving, and at the completion of the program is equipped to write computer programs in modern languages such as C++, Visual Basic, and Assembly Language. The program explores legacy languages such as Fortran and Cobol. Also covers the use of modern office software application packages.

The second option (Computer Networks Option) provides training for computer network professionals and network administrators. Prepares students to take several industry exams leading to certification, such as Microsoft Certified Systems Engineer (MCSE) and Cisco Certified Network Associate (CCNA). Note: Courses in this program have the letter code CSNT.

#### Computer Science Technology Program

The Associate in Applied Science in Computer Science Technology has two options. The first option (Software and Programming Option) focuses on applications programming. The student is trained in the logic of problem solving, and at the completion of the program is equipped to write computer programs in modern languages such as C++, Visual Basic, and Assembly Language. Exposure is provided to legacy languages such as Fortran and Cobol. Students are also trained in the use of modern office software application packages. The second option (Computer Networks Option) provides for training as computer network professionals and network administrators. Courses prepare students to take several industry exams leading to certification, such as Microsoft Certified Systems Engineer (MCSE) and Cisco Certified Network Associate (CCNA). Courses in this program have the letter code CSNT.

#### A.A.S. Degree in Computer Science Technology

Total Credit Hours: 61-62

First Semester			
Course #		Course Title	Credits
FESM	101C	First Year Seminar	1
ENGL	111C	English Composition I	3
MATH	116C	Finite Mathematics <b>OR</b>	3
MATH	113C	Pre-Calculus w/Trigonometry I	3
APCT	104/105C	Intro to Applications of Comp Lec/Lab	3
APCT	110/111C	Intro to Programming Lec/Lab	3
<b>Total Credit Hours</b>			<b>13</b>
Second Semester			
ENGL	112C	English Composition II	3
MATH	215C	Calculus for Business, Social & Life Sci <b>OR</b>	4
MATH	114C	Pre-Calculus w/Trigonometry II	3
PHIL	105C	Introduction to Logic	3
APCT	231C	Computer Science I Lec	3
APCT	233C	Computer Science I Lab	1
APCT	115C	Computing Foundations	3
<b>Total Credit Hours</b>			<b>16/17</b>
Third Semester			
APCT	232C	Computer Science II Lec	3
APCT	234C	Computer Science II Lab	1
PHYS	101C	Intro to College Physics I Lec	3
PHYS	103C	Intro to College Physics I Lab	1
		Computer Science Elective*	3
		Computer Science Elective*	3
		Options Electives**	3
<b>Total Credit Hours</b>			<b>17</b>
Fourth Semester			
APCT	184C	Applied Operating Systems	3
		Computer Science Elective*	3
		Computer Science Elective*	3
		Options Elective**	3
		Options Elective**	3
<b>Total Credit Hours</b>			<b>15</b>

#### Special Notations:

**\*Also includes courses in Graphic Design and Desktop Publishing**

**\*\*Software and Program Option: Electives from advanced programming, systems, or software applications courses**

**\*\*Computer Network Option: Electives from computer network courses, such as courses applicable to MCSE or CCNA certification  
English and Mathematics courses may require prerequisites depending upon results of ACCUPLACER Placement Test.**



## University of the District of Columbia-Community College (UDC-CC)

### Construction Management

Please note: This program began in spring 2011

The Construction Management program was developed in response to the high unemployment rate of the District of Columbia and the projections of the D.C. Department of Employment Services and Bureau of Labor Statistics for an increased need for construction workers in this area.

This program will serve as a model for the emerging field of green construction training and prepares students for entry-level construction jobs such as:

- Engineering Aide
- Assistant Construction Manager
- Estimator
- Scheduler
- Small Construction Company Owner

The program consists of 65 semester credits--23 credits are general education and required courses, 39 credits are construction management courses, and 3 credits are for an elective. Full-time students can complete the program in two years. Students will be taught using laboratory instruction, classroom instruction, and field trips to construction sites.

#### Community College of the District of Columbia

#### A.A.S. Degree in Construction Management

*Special Notations: English and Mathematics courses may require prerequisites depending upon results of the ACCUPLACER*

#### First Semester

Course #	Course Title	Credits
FESM 101C	First Year Seminar	1
ENGL 111C	English Composition I	3
MATH 111C	Technical Mathematics I	3
CMTC 101C	Construction Management I	3
CMTC 121C	Construction Field Operations (Lec/Lab)	3
AETC 101C	Architectural Drawing & Design I	3
<b>Total Credit Hours:</b>		<b>16</b>

#### Second Semester

Course #	Course Title	Credits
ENGL 112C	English Composition II	3
MATH 112C	Technical Mathematics II	4
CMTC 102C	Construction Management II	3
CMTC 301C	Surveying (Lec/Lab)	3
CMTC 114C	Materials & Methods of Construction I	3
<b>Total Credit Hours:</b>		<b>16</b>

#### Third Semester

Course #	Course	Credits
CMTC 201C	Construction Management III	3
CMTC 211C	Site Planning (for CM majors)	3
CMTC 224C	Cost Estimating (for CM majors)	3
AETC 206C	CAD Docs/Specs/Estimating	3
AETC 244C	Mech & Elec Systems	3
	Elective	3
<b>Total Credit Hours:</b>		<b>18</b>

#### Fourth Semester

Course #	Course	Credits
CMTC 202C	Construction Management IV	3
CMTC 235C	Planning and Scheduling	3
ENGL 113C	Technical Writing	3
PHYS 101C	Intro to College Physics Lec.	3
PHYS 103C	Intro to College Physics Lab	1
	Behavioral/Social Science Elective	3
<b>Total Credit Hours:</b>		<b>16</b>

Total Credit Hours for A.A.S. Degree in Construction Management:65



## University of the District of Columbia-Community College (UDC-CC)

### Mortuary Science

The Community College offers the Associate of Applied Science degree in Mortuary Science. The program is accredited by the American Board of Funeral Service Education (ABFSE). The program's mission is to provide its students with a comprehensive education in mortuary science and prepare graduates to enter the funeral service profession as competent funeral service practitioners. The program offers basic education courses in the Pre-mortuary phase, followed by in-depth academic and clinical education in the professional and clinical stages.

Upon successful completion of the program and prior to graduation, students are eligible and required to take the National Board Examination given by the International Conference of Funeral Service Examining Boards. Employment opportunities exist with funeral homes, hospitals, medical schools, health, and the offices of medical examiners or coroners.

#### Total Credit Hours for A.A.S. Degree in Mortuary Science: 73

Pre-Mortuary Courses		
Course #	Course Title	Credits
FESM 101C	First Year Seminar	1
ENGL 111C	English Composition I	3
ENGL 112C	English Composition II	3
MATH 101C	General College Math I	3
MATH 102C	General College Math II	3
ENGL 115C	Public Speaking*	3
PHYS 111C	Anatomy & Physiology I Lec*	3
PHYS 113C	Anatomy & Physiology I Lab*	1
<b>Total Credit Hours</b>		<b>20</b>
First Semester		
MSTC 104C	Funeral Service Orientation*	3
MSTC 107C	History & Sociology of Funeral Service*	3
MSTC 112C	Anatomy & Physiology II Lec*	3
MSTC 114C	Anatomy & Physiology II Lab*	1
MSTC 201C	Principles of Macroeconomics	3
<b>Total Credit Hours</b>		<b>13</b>
Second Semester		
MSTC 105C	Descriptive Pathology*	3
MSTC 135C	Funeral Service Law*	3
MSTC 104C	Intro to Applications of Comp*	2
MSTC 105C	Intro to Applications of Comp lab*	1
MSTC 201C	Principles of Accounting I *	3
<b>Total Credit Hours</b>		<b>12</b>
Third Semester-Summer		
MSTC 124C	Theories of Embalming & Disposition.*	3
MSTC 131C	Restorative Art I—Lecture*	3
MSTC 155C	Sm. Business Mgmt for Funeral Service*	3
<b>Total Credit Hours</b>		<b>9</b>
Fourth Semester		
MSTC 213C	Restorative Art II —Lecture*	2
MSTC 214C	Restorative Art II —Lab*	2
MSTC 220C	Embalming & Dispo. Principles I (Lec)*	1
MSTC -223C	Embalming & Dispo. Principles I (Lab)*	2
MSTC 205C	Funeral Service Mgmt & Principles Lec*	2
MSTC 206C	Funeral Srv Mgmt & Prin. Practicum*	3
<b>Total Credit Hours</b>		<b>12</b>

Fifth Semester		
MSTC 230C	Embalming & Dispo. Prin. II (Lec)*	1
MSTC 232C	Embalming & Dispo. Prin. II (Lab)*	2
MSTC 254C	Psychology of Grief*	3
MSTC 294C	National Board Seminar*	1
<b>Total Credit Hours</b>		<b>7</b>

**Special Notations: \* Must achieve a grade of "C" or better**





## University of the District of Columbia-Community College (UDC-CC)

### Music

The Music Program provides specialized professional training in various disciplines of music and general courses for cultural enrichment.

The two-year Associate in Arts in Music degree is available in two options: Music and Music Education with three areas of concentration: instrumental, keyboard, and vocal.

To be admitted to any of the degree programs, students must apply to the Music Program, audition in their performance area(s), and pass the Music Program's placement.

The two-year Associate in Arts in Music degree is offered in three areas of concentration: instrumental, keyboard, and vocal. The program prepares students for acceptance into the Bachelor of Music degree program at the University and provides the basic preparation for a career in music.

To be admitted to any of the degree programs, students must apply to the Music Program, audition in their performance area(s), and pass the Music Program's placement examinations.

### Total Credit Hours of College-Level Courses Required for Graduation: 65

#### Core Courses in Major

Performing Ensemble Courses*	4
MUSC 100C, 101C Materials of Music I, II	6
MUSC 102C, 103C Ear Training and Sight Singing I, II	4
MUSC 106C History of African American Music	3
MUSC 200C, 201C Materials of Music III, IV	6
MUSC 202C, 203C Ear Training and Sight Singing III, IV	4
MUSC 270C Computer Applications to Music I	3
MUSC 210C Directed Study (AA Seminar)	2

\*Specific performing ensemble courses are required in certain programs

#### Applied Major (8): Select one of the following eight credit hour sequences:

Applied Major Keyboard:	MUSC 115C, 116C, 215C
Applied Major Voice:	MUSC 125C, 126C, 225C
Applied Major Instrument:	MUSC 135C, 136C, 235C

#### Applied Minor (4): If Applied Major Voice or Applied Major Instrument is selected:

Applied Minor Keyboard:	MUSC 116C, 216C
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#### If Applied Major Keyboard is selected, choose one of the following four credit hour sequences:

Applied Minor Keyboard:	MUSC 116C, 216C
Applied Minor Voice:	MUSC 126C, 226C
Applied Minor Instrument:	MUSC 136C, 236C

#### Additional Required Course(s): Select one of the following two credit hour sequences:

Jazz Improvisation I	MUSC 130C
Gospel Music Improvisation I	MUSC 181C

#### \*Or recommended alternative course(s)

*For vocal; keyboard/vocal concentration (except Jazz or Gospel Music)*

Italian Diction for Voice Majors	MUSC 114C
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**Comments:** A grade point average of 2.0 is required for all music courses and 3.0 for all applied major courses.

#### General Education:

General College Math I, II, MATH 101C, 102C	6
English Composition I, II, MATH 111C, 112C	6
Physics of Music (Lec, Lab), PSYC 115C, 117C	4
Social Science elective	3
Social science elective may be selected from the offerings in Psychology, Sociology, Economics, History, Social Welfare, Geography, Political Science, and Urban Studies	



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## University of the District of Columbia-Community College (UDC-CC)

### Fire Science Technology

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For over thirty years, the Associate of Applied Science degree in Fire Science Technology has offered DC area Fire Department (DCFD) and Emergency Medical Service (EMS) professional's college level courses at times which complement employee work schedules. Each year, DCFD and EMS professional's enroll in the program to gain points for promotional examination, to enhance their knowledge in a particular area of Fire Sciences, or to obtain a degree. A number of graduates have been promoted as a result of having completed the degree requirements. Some have become instructors, obtained employment at other institutions, or continued their studies as graduate students at UDC and other institutions of higher learning.

Students completing the two-year curriculum receive an Associate of Applied Science degree in Fire Science Technology. Instruction is given in the principal fields of Fire Science to include Fire Suppression, Hazardous Materials, Arson Investigation, Fire Prevention, Fire Safety Codes and Standards, Fire Service Hydraulics, Advanced Fire Fighting Tactics and Strategy, Fire Protection Systems, as well as Urban Fire Safety.

#### ***Total Credits Hours of College-Level Courses Required for Graduation: 60***

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##### **General Requirements**

ENGL 111C	English Composition I	3
ENGL 112C	English Composition II	3
HIST 101C	United States History I	3
PSYC 201C	Principles of Psychology I	3
	Natural Science course Lecture/Lab	4
MATH 111C	Technical Mathematics I	4
MATH 112C	Technical Mathematics II	4
	Electives	6

*\*Course selected must be approved by the Project Director*

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##### **Required Courses**

FISC 101C	Fire Protection and Organization	3
FISC 103C	Fire Prevention	3
FISC 103C	Building Construction	3
FISC 204C	Fire Service Hydraulics	3
FISC 205C	Fire Protection Systems	3
FISC 206C	Fire Safety Codes and Standards	3
FISC 307C	Hazardous Materials	3
FISC 308C	Arson Investigation	3
FISC 409C	Advanced Fire Fighting Tactics and Strategy	3
FISC 410C	Urban Fire Safety Seminar	3



## University of the District of Columbia-Community College (UDC-CC)

### Associate in Applied Science Degree in Nursing

The Community College offers the Associate in Applied Science (AASN) Degree in Nursing and accelerated Licensed Practical Nurse (LPN) to Associate in Applied Science in Nursing. The curriculum reflects high standards of professional practice and incorporates guidelines from practice trends, professional organizations, and accrediting agencies. The Associate in Applied Science (AASN) Degree in Nursing Program has two tracts: the generic and the accelerated Licensed Practical Nurse (LPN) to Associate in Applied Science in Nursing. The curriculum reflects high standards of professional practice and incorporates guidelines from practice trends, professional organizations and accrediting agencies.

Students develop the knowledge base and clinical competencies required to meet the health care needs of patients across the health continuums. Nurses treat patients along the age and health-care continuums – from premature infants to the aged in critical care, acute care, rehabilitation, and home care settings.

**University-Wide Requirements:** All pre-nursing courses identified under the General Education requirements must be completed before making application to the nursing program.

**All Clinical courses compose of both the theory and practicum. There is only one grade given for the course. The student is required to attend the theory class and the assigned practicum.**

First Semester		
Course #	Course Title	Credits
NURS 100C	Concepts Basic to Nursing	2
NURS 105C*	Nursing Pharmacology	3
NURS 115C	Foundations of Nursing Theory/Practicum	5
*NURS 190C	Validation Theory/Laboratory	4
<b>* LPN Tract Requirement (10-15 Escrow Credits are awarded after completion of credit by examination forms)</b>		

Second Semester		
Course #	Course Title	Credits
NURS 116C	Medical-Surgical Adults I Theory/Practicum	5
NURS 125C	Maternal Newborn Nursing Theory/Practicum	5
<b>Total First Level Nursing Requirement Credit Hours</b>		<b>20</b>

*All 100 level nursing courses must be completed before matriculating to the 200 level. A student with less than a "C" will not be permitted to move to a 200 level course under any circumstance.*

Third Semester		
Course #	Course Title	Credits
NURS 219C	Pediatric Nursing Care Theory/Practicum	5
NURS 230C	Mental Health Nursing Theory/Practicum	5

Fourth Semester		
Course #	Course Title	Credits
NURS 235C	Medical-Surgical Adults II Theory/Practicum	8
NURS 240C	Senior Nursing Process Lab	1
NURS 290C	Nursing Seminar, AAS	2
<b>Total Second Level Nursing Requirement Credit Hours</b>		<b>21</b>

**TOTAL SEMESTER HOURS 69-73**

Students apply for admission to nursing on or before the third Friday in September for spring semester or the third Friday in January for fall semester admission to clinical NURSING courses. Basic requirements for admission to the nursing program: course grades of "C" or better, science courses no older than seven years, cumulative UDC grade point average of 2.5 or better and a National Criminal Background Clearance. Application submission **does not** guarantee admission to the nursing program.



## University of the District of Columbia-Community College (UDC-CC)

### Respiratory Therapy

The University offers the A.A.S. Degree in Respiratory Therapy. The curriculum reflects high standards of professional practice and incorporates guidelines from practice trends, professional organizations, and accrediting agencies. Students develop the knowledge base and clinical competencies required to meet the health care needs of patients with cardiopulmonary disorders. Respiratory Therapists treat patients along the age and health-care continuums—from premature infants to the aged in critical care, acute care, rehabilitation, and home care settings. The Respiratory Therapy program is accredited by the Commission on Accreditation for Respiratory Care (CoARC), 1248 Harwood Rd., Bedford, TX 76021-4244.

#### Academic Information

##### Admission

Upon admission to UDC, students identifying Respiratory Therapy as a major are assigned to a faculty member in the Respiratory Therapy department for ongoing advisement; however, a separate application is required to enroll in the Professional/Clinical Division (P/CD) of the program.

**Admission to the P/CD** is competitive. To be considered for admission to the P/CD, eligible students must first be enrolled at the University, complete prerequisites of 14 semester hours earning a minimum grade of “C” in each identified course, and have a cumulative grade point average (CGPA) of 2.5 or higher.

**Transfer students** must also demonstrate a 2.5 GPA, and have their official transcript(s) evaluated by the University prior to their application to the P/CD. The prerequisite courses are: College Math I (3 credits), English Composition I (3 credits), Anatomy and Physiology I Lecture and Lab (4 credits), and Anatomy and Physiology II Lecture and Lab (4 credits).

Applications for the P/CD are due on or before March 1st for the Fall semester. Application submission does not guarantee admission. The Respiratory Therapy, Admissions and Progression Committee review all applications and recommend students for admission. Students who are not accepted must reapply for consideration. Admitted students are subject to the program requirements, policies, and regulations as identified in the Respiratory Therapy Program Handbook in effect at the time they begin their P/CD coursework.

##### Readmission

Students in the P/CD who have not been enrolled in a sequential Respiratory Therapy course for one or more semesters must submit a letter requesting readmission.

Students applying for readmission must have a GPA of 2.5 and may be required to repeat some or all of the Respiratory Therapy courses previously completed. Readmission to the P/CD is contingent upon space availability, and acceptance by the Respiratory Therapy Admissions and Progression Committee. Readmitted students are subject to the program requirements, policies, and regulations as identified in the Respiratory Therapy Program Handbook in effect at the time of their return to the P/CD.

##### Academic Standing

Students must achieve a grade of “C” or better in all courses identified in the program of study. Also, students must pass each Respiratory Therapy course in sequential order.. Failure to pass any Respiratory Therapy course with a grade of “C” or better prevents the student from taking the next course in the sequence. Students may repeat a Respiratory Therapy course only once and may repeat no more than two Respiratory Therapy courses.

##### Progression and Graduation

The Associate Degree requires 70 semester hours, the final 15 of which must be in residence at the University.

Progression to the Third (summer) Semester requires completion of Fundamentals of Anatomy and Physiology I and II and Fundamentals of Chemistry prior to enrollment in the summer semester.

To progress to the final semester prior to graduation, students must perform successfully on the National Board for Respiratory Care (NBRC) Certified Respiratory Therapist Self-Assessment Examination (CRT-SAE).

To be cleared for graduation, students must pass the NBRC Written Registry Self-Assessment Exit Examination (WRRT-SAE) at a cut score set by the CoARC/NBRC

##### Additional Requirements

**Health Clearance:** Students are required to have physical examination every year prior to clinical placement, in addition to any additional immunizations required by the clinical agencies and DC Law.

**CPR Certification:** All students enrolled in clinical Respiratory Therapy are required to have and maintain current certification in cardiopulmonary resuscitation(CPR for Health Care Providers (card “C”).

**Professional Liability Insurance:** Students are required to maintain professional liability insurance throughout their clinical enrollment. Insurance is purchased in the cashier’s office (Bldg. 39, 2nd Floor).

**Criminal Background Check:** Students taking clinical/practicum courses may be required to provide a criminal background check by the hospital/agency.

**Class Attendance:** Students must attend all classes and laboratories. Clinical attendance in Respiratory Therapy is mandatory.

**Code of Ethics:** In addition to University policy, students are expected to follow the Code of Ethics as adopted by the American Association for Respiratory Care (AARC). Students who violate the code could be dismissed from the Respiratory Therapy Program.

**Curriculum Revisions:** The faculty reserves the right to make curriculum revisions through the Curriculum Committee, without prior notice or publication, provided these changes would not lengthen the time required for a student enrolled in the P/CD to obtain the Respiratory Therapy degree. Such changes would be reflected in the Respiratory Therapy Program Handbook, and may become effective prior to publication of the next catalogue.



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**University of the District of Columbia-Community College (UDC-CC)**

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**Respiratory Therapy**

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<b>First Year-Fall Semester</b>		
Course #	Course Name	Credits
RSPT 170C	Introduction to Health Sciences (May be taken prior to admission)	2
RSPT 171C	Principles and Practice of Respiratory Therapy I	4
RSPT 173C	Ventilation and Gas Exchange Physiology	2
CHEM 105C	Fundamentals of Chemistry – Lecture	3
CHEM 106C	Fundamentals of Chemistry – Lab	1
MATH 102C	General College Math II	3
Total		15
<b>First Year-Spring Semester</b>		
RSPT 172C	Principles and Practice of Respiratory Therapy II	4
RSPT 274C	Acid-Base and Hemodynamic Physiology	3
RSPT 271C	Respiratory Therapy Pharmacology	3
ENGL 112C	English Composition II	3
Total		13
<b>First Year Summer Semester</b>		
RSPT 250C	Introduction to Mechanical Ventilation	3
RSPT 269C	Neonatal/Pediatric Respiratory Therapy	1
Total		4
<b>Second Year-Fall Semester</b>		
RSPT 270C	Critical Care and Ventilator Management	4
RSPT 273C	Cardiopulmonary Diagnostics	3
RSPT 276C	Respiratory Disease Management	3
RSPT 280C	Respiratory Therapy Seminar I	1
PSYC 201C OR SOCY 111C	Introduction to Psychology <b>or</b> Introduction to Sociology	3 3
Total		14
<b>Second Year-Spring Semester</b>		
RSPT 277C	Adjunctive Respiratory Therapies	3
RSPT 278C	Respiratory Therapy Clinical Preceptorship	3
RSPT 290C	Respiratory Therapy Seminar II	1
BIOL 245C	Clinical Microbiology Lecture (May be taken anytime)	3
BIOL 244C	Clinical Microbiology Lab (May be taken anytime)	1
Total		11
TOTAL SEMESTER HOURS		72



## University of the District of Columbia-Community College (UDC-CC)

### Workforce Development and Lifelong

**Learning** offers non-credit courses for District of Columbia residents in Career and Technical education fields.

The mission of the Career and Technical (CTE) Programs is to reduce unemployment and under-employment in the District of Columbia by enhancing the skills of its residents. The program provides training to DC residents aimed at helping them to get jobs, to be promoted in jobs, and to transition to jobs in new industries. The offerings are varied and appeal to a wide variety of interests. Programs and courses are subject to change and require a minimum number of participants.

#### Programs:

##### UDC-CC Credit Bearing Courses Program

- English Composition I & II
- General College Mathematics I & II
- Beginning Spanish I
- United States History to 1865 I

##### Skills Training Programs

- Computer Basics
- Introduction to Microsoft Office Suite
- Language Arts Skills Development
- Mathematics Skills Development
- Medical Terminology/Anatomy
- Spanish in the Workplace

##### Certificate Preparation Programs

- General Education Diploma (GED) Preparation
- Heating and Air Conditioning (HVAC) Program
- Medical Assistant (MA) Program
- Medical Office Administrative Program (MOAP)

##### Certificate Programs

- Electronic Health Records (EHR) Program

##### License/Certificate Programs:

- A+ Certification/Computer Repair
- ACCUPLACER Preparation
- Cabling/Telecommunications Training Program
- Certified Nursing Assistant Training Program
- Child Development Associate Training
- Cisco Certified Network Associate (CCNA)
- Home Healthcare Aide (HHA) Training
- Licensed Practical Nurse

#### **Information Necessary for Enrollment**

1. Call the training center where you are interested in pursuing training. The numbers to call are shown in the previous section.
2. Determine when the Comprehensive Adult Student Assessment Systems (CASAS) test will be given at the site you have identified.
3. Go in person to the training center you have chosen at the time that the CASAS examination will be offered to complete the Assessment component, which is the first step toward registration in a program/course.
4. Take with you at the time you go to take the CASAS examination documentation for each of the following requirements:

Requirement	Acceptable Document(s)
Residency	DC Driver's License or DC Non-Driver ID card
Educational Status	High School Diploma; GED; School Transcript (with raised sealed); College Transcript (sealed)
Proof of Income	Pay Stub (current) or IRS Form 1040
Citizenship	Birth Certificate; US Passport; foreign passport stamped <i>Eligible to Work</i> .
Date of Birth	Birth Certificate
Social Security Number	Social Security Card; Letter from Social Security Administration
Military Status	(If Applicable) DD-214
Employment Status	(If Applicable) Layoff Notice; Termination Notice. (Applies to dislocated workers.)
Selective Service Registration	(If Applicable) Selective Service Card
Number of Dependents	Birth certificate for each dependent <b>and</b> IRS Form 1040.
Health Insurance	Health Insurance Card

5. Upon completion of the assessment activities, you will receive an appointment to meet with your Student Success Specialist to determine your individualized education program (IEP). During this meeting, all of the options available to you will be clearly explained, and you will select your training activities. You will need to have or to secure an email address at this time.
6. After determining the training you wish to undertake, and having determined that you are eligible for the training option you have chosen, you will complete the *Statement of Interest (SOI)* found on the website located at:  
[http://ccdc.usdc.edu/workforce\\_development](http://ccdc.usdc.edu/workforce_development).
7. Once you have completed and submitted the SOI, you have only to wait while your application is under review. Remember that your application cannot be considered until **ALL** of the required documentation is available for review.
8. When your registration is complete, you will receive a *Notice of Registration* by email sent to the email address you provided. Note that we are not responsible for incorrect email addresses.
9. Bring with you on the first day of class the *Notice of Registration* which demonstrates that you have completed all of the requirements for entry into the training program/course that you have chosen.



### **UDC-CC Credit-Bearing Courses Program**

**WDP** offers Credit-Bearing courses free of charge to; however, they require a separate admission to the Community College, which specifies its own set of prerequisites, including passing Accuplacer scores.

Once admitted a Student Success Specialist can advise you on this process.

This program requires a separate application.  
Please call your local training center for more information.

#### **Available courses:**

##### **ENGL 111C English Composition I (3)**

Develops clear and effective expository writing skills by exploring, explaining, and identifying the steps involved in the writing process. Examines selected readings and which provide extensive practice in critical thinking, reading, and writing using rhetorical strategies (e.g., definition, exemplification, process, analysis, comparison/contrast, cause and effect, classification, and argument), with special emphasis on identifying text features. Reviews grammar, mechanics, and correct usage. Supports the English program's goals of fostering critical thinking, reading, and writing the clear expression of ideas. Also includes an introduction to library resources.

##### **ENGL 112C English Composition II (3)**

Continues the study of the writing process begun in English Composition I with a focus on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of an 8-10 page research paper.

##### **SPAN 101C Beginning Spanish I (3)**

Teaches the basic skills of comprehension, speaking, reading, writing, and knowledge of the culture of the Spanish-speaking world. Provides extensive practice through situational drills for students who have no previous knowledge of the language. Offers the first course of a two-semester sequence. Requires attendance in the Language Laboratory.

##### **HIST 101C United States History I To 1865 (3)**

*Pre-requisites: None*

Studies the interaction and conflict between American Indians, Africans, and Europeans; social and economic structure of the English colonies; the war for independence and nation building; slavery and the emergence of the cotton kingdom; the development of political parties in the Age of Jackson; sectional conflict in the West; and the coming of the Civil War.

##### **Math 101C General College Mathematics (3)**

Equips students with the mathematical skills, knowledge, and understanding necessary to function in a technological society. Covers problem solving, sets and logic, numeration and mathematical systems, linear equations and inequalities, and graphing. Lec. 3 hrs., Prereq: 015C or appropriate scores on the Mathematics Placement Test. Note: Students whose major requires specific mathematical skills should not enroll in 101C or 102C. Consult your academic department.

##### **MATH 102C General College Mathematics II (3)**

Expands on Math 101C. Explores measurement and geometry, trigonometry of right triangles, and consumer mathematics. Also introduces probability and statistics. Lec. 3 hrs, Prereq: MATH 101C.

#### **Program Locations and Contact information**

We offer specialized non-credit programs at several convenient locations throughout the metropolitan area.

- **PR Harris Education Center:** 4600 Livingston Road, SE, Washington, DC 20032. 202.274.6999
- **Backus Campus:** 5171 South Dakota Avenue, NE, Washington, DC 20017. 202.274.7209
- **Marion Shadd Education Center:** 5601 East Capitol Street, SE, Washington, DC 20019. 202.274.5617
- **United Medical Center:** 1310 Southern Avenue, SE, Washington, DC 20031. 202.574-6854
- **Ballou STAY** 3401 St. SE Washington, DC 20032 202.6453390

#### **Directly call any local site for the following Programs:**

- ACCUPLACER Preparation
- Introduction to Microsoft Office Suite
- General Education Diploma (GED) Preparation
- Language Arts Skills Development
- Mathematics Skills Development

#### **Call 274-6965 for the following Programs:**

- Certified Nursing Assistant Training Program
- Home Healthcare Aide (HHA) Training

#### **Call 274-7021 for the following Program:**

- Electronic Health Records (EHR) Program

#### **Call 274-6951 for the following Program:**

- Licensed Practical Nurse

#### **Program Descriptions**

##### **ACCUPLACER Preparation**

*Pre-requisites: High School Diploma; GED;*

*CASAS Reading Score = 231; CASAS Math Score = 221*

The ACCUPLACER is a computer-adaptive placement test that assesses the participant's reading, writing, and mathematics skills in order to predict the participant's probable success in college level courses. Those who do not demonstrate college level competencies must enroll in reading, mathematics, and writing training to prepare to retake the ACCUPLACER. Only students who have passed the ACCUPLACER may enroll in courses which grant college credit.

##### **Introduction to Microsoft Office Suite**

*Pre-requisites: Computer Basics or permission of the instructor*

This course trains the participant in Microsoft Word and introduces Microsoft Excel and Microsoft PowerPoint. Participants learn to create, edit, format, modify, save and print standard Word, Excel and PowerPoint documents. Students have access to web-based training which gives them 24/7 access to courseware from any computer with high-speed Internet service.



### **General Education Diploma (GED) Preparation**

*Pre-requisites: CASAS Reading Score = 231; CASAS Math Score = 221*

This course prepares individual to take GED Examination. It focuses on Reading, Writing, and Mathematics skills development using on-line courseware. This course is required of all WDP students who present without a high school diploma; it may be performed anywhere that high-speed Internet service is available.

### **Language Arts Skills Development**

*Pre-Requisites: None*

This training is designed to help improve participants' reading performance so that they meet the pre-requisites for those CTE course offerings which have higher level reading requirements. This course is required for any participant whose Reading Level Set score is at a grade level below 9.0.

### **Mathematics Skills Development**

*Pre-Requisites: None*

This training is designed to help improve participants' mathematics performance so that they meet the pre-requisites for certain CTE course offerings which have higher level mathematics requirements. This course is required for any participant whose Mathematics Level Set score is at a grade level below 9.0.

### **Computer Basics**

*Pre-Requisites: None*

This course introduces the participant to the basic concepts of computer utilization. It includes using computer hardware; sending and receiving email; email attachments; using Microsoft Word; and performing Internet information searches. Participants have access to web-based training which gives them 24/7 access to courseware from any computer with high-speed Internet service.

### **Medical Terminology/Anatomy**

*Pre-requisites: High school diploma or GED , CASAS Reading = 231; CASAS Math = 221*

Students wishing to take the Medical Assistant (MA) program must complete this training as a pre-requisite. Upon completion of this course, participants will have a basic knowledge of the bone structures and the main systems of the human body. They will also have mastered the most useful, high-level medical terms which will form the basis for their further education in Applied Health. The course will use a hybrid model, including on-line resources wherever possible to allow participants to practice their new knowledge at any time.

### **Spanish in the Workplace**

*Pre-Requisites: None*

This course helps participants to bridge the conversation gap between speakers of English and Spanish in the workplace. The course introduces grammatical structures, vocabulary, and information in an interactive manner focusing on interactions that might regularly be encountered at work.

### **Electronic Health Records (EHR) Program**

*Pre-requisite: Information Technology (IT) and/or Healthcare/Medical background; Electronic Health Records Boot Camp; minimum of a HS Diploma/GED; must be able to pass a drug test; and 8th grade in Reading and Math per CASAS Examination.*

This six-month certificate program prepares the participant to maintain, collect, and analyze the data needed by health care providers to deliver high quality health care. The participant learns to manage patient health information and medical records, to administer computer information systems, and to code diagnoses and procedures for health care services provided to patients. Among the careers that participants prepare for are: Technical/Software Support Specialist; Implementation Support Specialist; and Implementation Manager. This program requires a separate application.

### **Heating and Air Conditioning (HVAC) Program**

*Pre-requisites: CASAS Reading = 231; CASAS Math = 221*

*Permission of the instructor*

This one hundred twenty (120) hour program presents the concepts of Heating and Air Conditioning including air and refrigerant distribution systems. It begins with a review of the formulas and concepts necessary for HVAC calculations and then explores the natural sciences behind the manipulation of HVAC systems to restore proper and balanced temperatures. Participants will master the operation of a basic air conditioning circuit and follow the flow of refrigerant from the point that it first extracts the heat from indoor air until it releases it into the outside air. Training then moves to deeper study of electrical circuits and troubleshooting, the operation of gas furnaces, and their troubleshooting, repair, and replacement. Upon successful completion of the program, participants are prepared to take the HEAT exam, a nationally recognized certification in basic Heating, Electrical, and Air Conditioning Technology.

### **Medical Assistant (MA) Program**

*Pre-requisites: High school diploma or GED , CASAS Reading = 231; CASAS Math = 221 . Medical Terminology/Anatomy*

*Permission of Instructor*

This one hundred twenty (120) hour program gives participants the skills they need to perform the clinical aspect of Medical Assisting. It covers the fundamental principles of communications, both with other medical professionals and with patients; legal concepts of working in the health care industry; vital signs, recording patient histories, preparing for and assisting with patient examinations, and providing patient instructions. Pharmacological principles as they apply to the office of the medical practitioner will also be covered as well as insurance issues. Professionalism in the workplace is emphasized. Issues of patient care, collection of specimens in the medical doctor's office, diagnostic testing, and the role the Medical Assistant plays in scheduling appointments will also be addressed. Laboratory work will include urinalysis, EKGs, administration of medications (injections), phlebotomy, and appropriate handling of lab specimens. The role of the Medical Assistant in following up of test results, HIPAA guidelines, and OSHA regulations as they apply to the medical office will also be addressed. CPR must be completed before this course is finished. The responsibility that the Medical Assistant has with regard to billing and coding will also be addressed.

### **Medical Office Administrative Program (MOAP)**

*Pre-requisites: CASAS Reading = 231; CASAS Math = 221*

*Permission of the Instructor*

This one hundred twenty (120) hour program introduces participants to the requirements they must meet in order to be





employed in a medical office. Students will become familiar with the various types of health care settings and medical practices while they learn about the duties they must perform in those settings. Among the topics included are: appointment scheduling; medical records and filing systems; opening and closing the office; technology in the medical office; professionalism, communications and work safety. Students then move on to managing practice finances; coding; health insurance; billing and collections; legal issues in the workplace; and biomedical ethics. Such administrative procedures as preparing charge slips, completing encounter forms, posting charges and payments, preparing bank deposits, and the like are also considered. Maintaining medical records, HIPAA compliance, review of body systems are addressed, as are the processes for converting medical office procedures and diagnoses into the codes needed to submit a patient health Insurance Claim to an insurance company. Students taking this course are prepared to sit for the dual certification examination for Medical Administrative Assistant Specialist and Medical Billing and Coding Specialist; those successful in receiving national certification are qualified for advancement in their field.

#### **A+ Certification/Computer Repair**

*License/Certificate: A+ Certificate*

*Pre-requisites: High School Diploma or GED; 8th grade in Reading and Math per CASAS Examination*

This course requires four hundred (400) classroom hours. Students will gain the basic skills necessary to enter the computer services industry as skilled technicians. This program leads to a nationally recognized A+ certification. All students will acquire SCANS as well as having a professional resume developed and posted online.

#### **Cabling/Telecommunications Training Program**

*License/Certificate: National NCS Fiber Certificate*

*Pre-requisites: High School Diploma or GED; 8th grade in Reading and Math per CASAS Examination*

This course requires four hundred (400) classroom hours. Students will gain the basic skills necessary to enter the skilled cabling/telecommunications trades. This program will lead to a nationally recognized telecommunications industry NCIS Cabling certification.

#### **Child Development Associate Training**

*License/Certificate: CDA License*

*Pre-requisites: High School Diploma or GED; 8th grade in Reading and Math per CASAS Examination*

This course provides the required theory and skills necessary for individuals to care for children in Family Day Care, Infant/Toddler and Preschool classrooms. This course requires a minimum of one hundred twenty (120) clock hours demonstrating competency in the CDA Competency Goals.

#### **Home Healthcare Aide (HHA) Training**

*License/Certificate: National Home Health Certification*

*Pre-requisites: High School Diploma or GED; 8th grade in Reading and Math per CASAS Examination*

This program provides the required theory and skills necessary to care for residents who have health issues requiring long-term care. The program requires a minimum of seventy-five (75) clock hours distributed as Theory (59 hours) and Practicum (16 hours). Upon

successful completion, students take the National Home Health Certification Examination.

#### **Certified Nursing Assistant Training Program**

*License/Certificate: Nurse Assistant*

*Pre-requisites: 6th grade in Reading and Math per CASAS Examination; High School Diploma or GED; criminal background check; TB test; urine toxicity screen, Health Care Provider CPR from AHA.*

This program provides the required theory and skills necessary to care for residents who have health issues requiring long-term care. The program requires a minimum of one hundred twenty (120) clock hours distributed in this manner: Theory (60 hours); Laboratory (20 hours); and Clinical (40 hours). Upon successful completion, students take the National Nurse Aide Examination.

#### **Licensed Practical Nurse**

*License/Certificate: Practical Nursing License*

*Pre-requisites: High School Diploma or GED; 9th grade in Reading and Math per CASAS Examination*

This twelve (12) month program, established in 1996, is designed for individuals with the desire and the ability to nurture and provide health care to persons in hospitals, clinics, long-term care facilities and other health care settings under the supervision of a registered nurse or physician. The Practical Nursing Training Program provides the required theory and skills necessary for participants to succeed in the test which results in the awarding of the license for Practical Nursing.

#### **UDC-CC Specialized Accreditation and Associations**

American Board of Funeral Service Education  
3414 Ashland Avenue, Suite G  
St. Joseph, MO 64506  
816.233.3747

Commission on Accreditation for Respiratory Care  
1248 Harwood Road  
Bedford, TX 76021-4244  
817.283.2835

National League for Nursing Accreditation  
3343 Peachtree Road NE, Suite 850  
Atlanta, GA 30326  
404.975.5000



## Course Descriptions:

### University of the District of Columbia-Community College (UDC-CC)

#### Course Descriptions for:

#### **Administrative Office Management**

#### **Business Administration**

#### **Computer Accounting Technology**

#### **Hospitality Management and Tourism**

#### **Fashion Merchandising**

#### **First Year Seminar FESM 101C**

(1)

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. Enhances skills for academic success, develops an understanding of community college culture, provides individualized academic advising, and fosters meaningful educational engagement. Also encourages students to participate actively in the community college and to reflect upon their experiences.

#### **Business Mathematics I MATH 117C**

(3)

Provides instructions primarily for students in two-year business programs. Introduces applications of mathematical operations to problems involving sales, averages, time cards, stock market reports, and invoices. Explores the use of ratio and proportion with consumer price index, shares and percentages. Lec. 3 hrs.

#### **Business Mathematics II MATH 118C**

(3)

Investigates computation of simple and compound interest. Also explores how to interpret charts and graphs, construct depreciation schedules, and compute the effective interest rate and true annual percentage rate. Lec. 3 hrs.

#### **Finite Mathematics MATH 116C**

(3)

Investigates systems of linear equations, matrices and linear programming. Includes elementary functions, especially logarithmic and exponential functions, and applications to business situations. Lec. 3 hrs.

#### **Calculus for Business, Social & Life Sci. MATH 215C**

(4)

Presents concepts and skills on limits and continuity. Also explores differential and integral calculus with applications from business, economics, and the social and biological sciences. Lec. 4 hrs.

#### **Principles of Macroeconomics ECON 201C**

(3)

Introduces supply and demand, income and employment theories. Analyzes the causes of inflation and unemployment, and the policy alternatives for affecting macroeconomic change. Discusses the institutional arrangements of a market economy.

#### **Principles of Microeconomics ECON 202C**

(3)

Analyzes theories of consumer behavior, production costs, and decision making by individuals and firms. Looks at price and output determination under different market conditions. Discusses factor markets and income distribution.

#### **Business Statistics BSEF 220C**

(3)

Analyzes graphical and tabular methods of representing data. Also examines measures of location and variation, elementary probability concepts, probability distributions, and the uses of index numbers.

#### **Computer Keyboarding I IPTC 101C**

(3)

Introduces the concept of keyboarding. Examines proper techniques, speed, and accuracy, tabulation, and centering skills. Emphasizes correct formatting for letters, memos, and related business correspondence. Minimum typing speed for completion of the course is 40 wpm.

#### **Computer Keyboarding II IPTC 102C**

(3)

Emphasizes advanced typewriting skills. Introduces WordPerfect software. Minimum typing speed for completion of course is 50 wpm. Prereq.: 2228 101 or 40 wpm.

#### **Introduction to Applications of Computer Lecture APCT 104C**

(2)

Identifies computer equipment. Also examines the functions of the components of a computer, including the binary, octal, and hexadecimal number systems. Also describes the various programming languages, and computer applications. Includes hands-on introduction in word processing, spreadsheets, database managers and microcomputer operating systems. Lec. 2 hrs.

#### **Introduction to Applications of Computer Laboratory APCT 105C**

Laboratory associated with 3528 104, Lab. 2 hrs.

#### **Word I IPTC 211C**

(3)

Introduces the basics of word processing using Microsoft Word software. Demonstrates how to get started, create, save, edit, and print documents, and how to use automatic text features. Also demonstrates how to enhance the appearance of documents through formatting, and use proofing tools to correct spelling and grammatical errors.

#### **Word II IPTC 212C**

(3)

Covers intermediate to advanced word processing concepts and skills using Microsoft Word software. Demonstrates how to create and format letters, envelopes, tables, and labels. Also demonstrates how to use templates, work with columns, and use graphic elements in documents.

#### **Computer Applications in Business OADM 120C**

(3)

Introduces Office Suite applications for the business environment. Particular emphasis on integrating applications within the Suite. Examines fundamental Internet concepts including World Wide Web browsing, searching, publishing, and advanced Internet productivity tools. Includes laboratory.

#### **Business Communications OADM 208C**

(3)

Covers the essential principles involved in preparing standard types of business communications, such as business letters, reports, and memoranda. Provides a review of basic English principles as applied to management in all aspects of business communication. Students gain expertise in both oral and written communications.

#### **Commercial Law BLPC 318C**

(3)

Studies contracts, agency, negotiable instruments and sales. Includes the legal variable encountered in business and commercial transactions and its application to practical problems.

#### **Principles of Accounting I ACCT 201C**

(3)

Includes the principles of accrual-basis accounting, the accounting cycle, merchandising transactions, treatment of inventories, cash, internal control, receivables, plant assets, and other topics. Prereq.: Completion of all prescribed developmental courses. First half of the elementary accounting year should be followed immediately by 2201 202.

#### **Principles of Accounting II ACCT 202C**

(3)

Examines accounting for corporations, long-term debt, the Statement of Cash Flows, financial statement analysis, cost accounting, cost/volume/profit analysis, incremental analysis, operational and capital budgeting, and other topics. Second half of the elementary accounting year. 2201 201 and 202 should be taken consecutively.

#### **Federal Income Tax I ACCT 312C**

(3)

Examines the Federal Income Tax laws as they apply to individuals; tax consequences of business decisions and accounting procedures.

#### **Intermediate Accounting ACCT 301C**

(3)

Reviews the basic accounting concepts and principles beginning with an overview of the balance sheet and income statement, financial statement preparation, working capital, and current assets. Includes a rigorous study of non-current assets and compound interest, annuities, and present value.

#### **Cost Accounting ACCT 325C**

(3)



Analyzes accounting for manufacturing costs, including job order costs, continuous process costs, and standard systems. Also examines principles of budgeting for use in profit planning and control.

**Intermediate Accounting II ACCT 302C (3)**

Studies analytical processes, including statements from incomplete records, financial statement analysis, cash-flow reporting and price-level changes, and accounting for pensions and leases.

**Accounting Information Systems ACCT 407C (3)**

Examines modern accounting systems with emphasis on information technology, including basic concepts and standards, accounting equipment and procedures, sales and cash collection, and accounts receivable, inventories, payrolls, and related areas.

**Public Speaking SPCH 115C (3)**

Investigates informative speaking, persuasion, group discussion, impromptu, manuscript, and extemporaneous formats. Also includes basic speech writing and presentation of speeches.

**Principles of Psychology I PSYC 201C (3)**

Introduces the history, methods, major theoretical viewpoints, and concepts of scientific psychology. Provides non-majors with an overview of the field of psychology; majors gain a foundation for further study.

### **Hospitality Management**

**Introduction to the Hospitality Industry HMG 104C (3)**

Examines the hospitality industry, giving special attention to the roots of the industry's foundation and its evolution. Also examines its characteristics, its role in society, its socio-political environment, and current and future trends that shape the industry and will continue to shape it.

**Introduction to Hotel Management HMG 204C (3)**

Examines the functions of management applied to hotels, motels, and other lodging establishments. Topics include hotel/motel planning, the internal organization structure of different types of hotels and motels, functions performed within all major departments, the establishment and implementation of coordinating procedures, international standards in hotel/motel facilities and services, and the application of the systems approach in hotel/motel operations.

**Food and Beverage Management HMG 206C (3)**

Covers the types and designs of food and beverage service systems. Incorporates those factors that determine how managers select and purchase food items and beverages. Examines storage and inventory management, cost-price analysis, pricing decisions, the human element in food and beverage service systems, interaction with other units in hotel/motel systems food production equipment acquisition, menu development principles, management control methods, and quality assurance.

**Restaurant Management HMG 208C (3)**

Examines the principles and techniques that apply when managing the different types of food service organizations. Topics include restaurant planning, market research, financial feasibility, internal organization structure, staffing requirements, menu management, pricing, promotion management, food safety and health regulations, and quality assurance methodology.

**Cost Control in the Hospitality Industry HMG 212C (3)**

Focuses on the approaches to cost analysis, evaluation, and containment in the hospitality industry. Examines productivity and efficiency improvement measures in the operations of hospitality service organizations.

**Facilities and Housekeeping Management HMG 214C (3)**

Examines the management of facilities and household operations in hotels, including room preparation, cleaning, guest services, security, and maintenance.

**Law as Related to the Hospitality Industry HMG 216C (3)**

Reviews hotel, motel, restaurant, and tourism law, in order to the responsibilities the law imposes on the hospitality industry. Topics include the legal obligations to guests/customers and employees, and contract law.

**Internship HMG 290C (1)**

Designed to provide students with an opportunity to develop and/or increase professional competencies and skills by performing an internship in a hospitality-related setting. Requires attendance at a weekly seminar.

### **Fashion Merchandising**

**Fashion Merchandising Fundamentals FSMD 101C (3)**

Introduces fashion merchandising with an overview of the apparel production and merchandising system. Covers the history, characteristics, and global interrelationships of all segments of the fashion business. Also examines the development of merchandise from concept to consumer, and explores how fiber, textile, and apparel producers, retailers, and home furnishings companies merchandise and market their products within the industry and to the ultimate consumer.

**Principles of Clothing Construction I FSMD 103C (3)**

Introduces and applies the principles of garment construction. Emphasizes techniques for various fabrics, trim, and production methods for basic styles. Teaches and applies basic sewing techniques according to typical product development and quality control procedures.

**Textiles FSMD 121C (3)**

Examines natural and synthetic fibers, fabric, and textiles from raw materials through manufacturing and finishing. Includes analysis of the use and care of textiles, fashion design applications, and consumer selection. Emphasizes the use of textiles for fashion product development and merchandising.

**Principles of Clothing Construction II FSMD 104C (3)**

Expands the principles of garment construction, with emphasis on understanding proportion, balance and construction by sewing basic garments. Applies sewing techniques by simulating real life situations in the fashion industry.

**Principles of Retail Buying FSMD 225C (3)**

Studies the principles, procedures, and techniques practiced by merchandisers of fashion goods in distribution of products, market sources, financing, and aspects associated with apparel and other products. Analyzes the buying function and the differences of buyers' responsibilities in various types of merchandising organizations. Retail technologies are researched and the impact on consumers' shopping motivation and experiences are explored.

**Introduction to The Business of Fashion Merch. FSMD 242C (3)**

Examines and analyzes the basic structure and practices of the fashion industry. Surveys careers in the fashion and garment business. Discusses fashion trends and production and how these effect design and merchandising. Emphasizes modern fashion business functions in a fast-paced industry, and factors that tend to influence wholesale and consumer behavior in fashion manufacturing and retailing.

**Internship Fashion Industry Independent Study FSMD 225C (3)**

Provides internship experience within a fashion-related industry that prepares students for entry-level job placement. Participates in the operations of fashion industry activities through a supervised work program.

**Trend Forecasting I FSMD 255C (3)**

Traces the history of the industry, analyzing the impact of politics, art, media, the economy, and society on fashion, as well as the contributions of historical and modern fashion innovators. By the end of this course students are able to research, identify, and



analyze fashion trends and directions of apparel and related consumer products, e.g., accessories, home furnishings, and toys.

**Introduction to Fashion Marketing FSMD 261C (3)**

Focuses on the integration of fashion marketing concepts, practices, applications and how a marketing/merchandise plan develops. Analyzes opportunities for merchandise brand imagery, positioning, segmentation, and targeting of fashion apparel and other products, and how these relate to the marketing of fashion.

**Fashion Merchandising Capstone FSMD 299C (3)**

This capstone course expands on fashion merchandising practices. Explores product promotion, advertising, sourcing and retailing. Examines the impact of imports on the domestic apparel businesses. Explores the domestic stages of manufacturing, retail buying as well as consumer behavior in merchandising with emphasis on retail visual merchandising and display development. Also includes a study of inventory control systems.

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**Fashion Merchandising Electives**

**Fashion in the Urban Marketplace**

Examines the urban mechanisms that promote change throughout the fashion world by exploring the highly influential aspects of fashion in the urban marketplace. Investigates city trend-setters in relation to the most innovative fashion business entities. Discusses fashion as a psychological and sociological phenomenon of temporary style preferences. Through methods of consumer research and sales forecasting, identifies and analyzes the connection between urban consumer preferences and product. Requires a major project brief designed to refine fashion methodology and conceptual skills and based on a specific area of interest.

**History of Costume**

Examines the history of clothing from ancient civilizations to the 20th century. Explores the influences of American and international history, politics, media, psychology and culture. Also investigates the people, art, film, photographers, music, image-makers, architects, and events that have contributed to shaping various aesthetics in fashion.

**Color Theory Science**

Introduces the principles of color and an exploration of color theory as it relates to product development. Examines psychological and cultural aspects of color in making appropriate design decisions. Utilizes light boxes and other technologies to teach the color approval process.

**Advanced Textiles (3)**

Studies textiles with an in-depth study of fiber classification, yarns, fabric construction, finishes and color applications. Examines the fabrics commonly used in fashion merchandise for sources of material, construction, comparative qualities and usage from the fashion viewpoint from fiber-to-product cycle. Explores methods of fiber identification, yarns and construction.

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**Criminal Administration and Law Enforcement**

**First Year Seminar FSEM 101C (1)**

The First Year Seminar is a unique transition course designed to facilitate integration into UDC-CC's learning community. The course enhances skills for academic success, develops understanding of community college culture, provides individualized academic advising, and fosters meaningful educational engagement. Also encourages active participation in the community college and to post-experience reflection.

**English Composition I ENGL 111C (3)**

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.

**General College Mathematics I MATH 101C (3)**

Provides mathematical skills, knowledge, and understanding necessary to function in a technological society. Topics include problem solving, sets and logic, numeration and mathematical systems, linear equations and inequalities, and graphing. Lec. 3 hrs.

**Introduction to American Government POLI 206C (3)**

Introduces the major principles of American government and politics. Focuses on major national institutions of the Presidency, Congress, and the courts. Also examines federalism, civil rights and civil liberties, and political behavior and dynamics.

**Criminal Justice System CRIM 100C (3)**

Provides an overview of the criminal justice system, including its main elements and functions. Also examines the social, political, and cultural considerations that have influenced and shaped system functions and institutions.

**Criminology CRIM 102CCC (3)**

Introduces the study of crime using computer software applications. Examines different types of crime and the problems of crime analysis. Stresses the importance of a geographical and demographic analysis of the incidence of crime.

**English Composition II ENGL 112C (3)**

Continues the study of the writing process begun in English Composition I. This course focuses on argumentation and analysis with extensive practice in writing and in-depth critical thinking through the use of supplemental readings. Culminates in the writing of a research paper.

**General College Mathematics II MATH 102C (3)**

Continues 1535 101. Explores measurement and geometry, trigonometry of right triangles, consumer mathematics, and introduces probability and statistics. Lec. 3 hrs.

**Psychology of Adjustment PSYC 137C (3)**

Emphasizes the understanding of everyday human behavior through the application of scientific principles derived from research. Examines foundations of psychological adjustment and the development of maladaptive behavior. Discusses human reactions evoked by stressful and frustrating environmental events, as well as reactions to internal sources of frustration. Examines procedures of psychological assessment, change, and newer methods of enhancing adjustment.

**Dynamics of Human Relations CRIM 271C (3)**

Introduces students to theoretical analysis, current research findings, models of helping methods, intervention designs, and follow-up evaluations for the adult and juvenile in criminal justice settings. Provides opportunities to role play and assess behavior, as well as interact with others in evaluation and feedback.

**Introduction to Forensic Investigations CRIM 203C (3)**

Introduces students to the field of forensic science. Examines the application of science and technology to crime scene analysis. Utilizes computer analysis, as well as more traditional laboratory equipment.

**Criminal Procedure CRIM 222C (3)**

Focuses on the procedural requirements of the fourth, fifth, and sixth amendments to the U.S. Constitution through a study of leading Supreme Court cases.

**Issues in Criminal Law CRIM 224C (3)**

Examines issues and principles in criminal law, utilizing legal concepts. Examines issues and principles not only from a systemic perspective, but also from the manner in which various societal groups are advantaged or disadvantaged. Also examines issues involving conditions of pretrial release, grand jury, elements of offenses, and affirmative defenses (such as insanity, entrapment), sentencing.

**Criminal Behavior CRIM 232C (3)**



Introduces the scientific study of behavior. Examines how criminologists study crime and criminal behavior using a variety of behavioral problems. Satisfies the University's social science requirement.

**Juvenile Justice Systems CRIM 234C (3)**

Explores the complexity of juvenile delinquency as a behavioral pattern by examining contemporary cultural and ecological environments and by studying the differing theories of delinquent behavior. Examines the juvenile court and focuses on special constitutional and legal concerns facing juvenile offenders.

**Conflict Resolution and Mediation Techniques CRIM 272C (3)**

Examines the characteristics of these two approaches as a prerequisite for analyzing how effective these techniques are as prevention and intervention techniques used to avoid or reduce the likelihood of violent confrontations. Develops an understanding of how an appropriate use of these approaches can facilitate interaction between the criminal justice system practitioner and individuals involved in one-on-one engagements with that practitioner. Provides opportunities to role play and assess behavior, as well as interact with others in evaluation and feedback.

**Introduction to Geo-Spatial Analysis CRIM 175C (3)**

Introduces students to the study of crime using mapping and special analysis to understand the relationship between geospatial environment and human habitation. Uses crime mapping techniques as well as quantitative and qualitative methodologies to explore topics of crime causation and analysis from a geo-spatial perspective.

**Ethics and Public Service (3)**

Explores and analyzes ethical considerations in specific public service contexts. Requires a written, personal statement of ethical standards of public service.

**Investigations CRIM 221C (3)**

Investigates methods and techniques, with emphasis on criminal investigations. Covers crime scene search, development of leads, recognition, handling and preservation of evidence, witness identification, and techniques of interview.

## **Legal Assistant**

**First Year Seminar FSEM 101C (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**English Composition I ENGL 111C (3)**

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.

**General College Mathematics I MATH 101C (3)**

Provides mathematical skills, knowledge, and understanding necessary to function in a technological society. Topics include: problem solving; sets and logic; numeration and mathematical systems; linear equations and inequalities; and graphing. Lec. 3 hrs.

**Legal Research and Writing I LATC 161C (3)**

Introduces the major techniques of legal research, in which students complete assignments and solve problems using various primary and secondary authorities, including federal and state law reporters, statutes, legislative and administrative publications, digests, loose leaf services, and legal encyclopedia. Students gain a basic knowledge of Shepard's Citations and West's Digest and Key Number System. This course also introduces techniques in computerized legal research.

**Introduction to Paralegalism LATC 181C (3)**

Introduces the American legal system and the role of the paralegal within that system. This course exposes the student to rules of statutory and common law interpretation, techniques of case analysis, and the canons of legal ethics which apply to the conduct of paralegals, lawyers, and judges.

**Introduction to Applications of Computer Lecture APCT 104C (2)**

Identifies computer equipment; examines the functions of the components of a computer; binary, octal, and hexadecimal number systems; description of various programming languages; applications of computers; hands-on introduction to word processing, spreadsheets, database managers and microcomputer operating systems. Lec. 2 hrs.

**Introduction to Applications of Computer Lab APCT 105C (1)**

Laboratory associated with 3528 104, Lab. 2 hrs.

**English Composition II ENGL 112C (3)**

Continues the study of the writing process begun in English Composition I. This course focuses on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of a research paper.

**General College Mathematics II MATH 102C (3)**

Continues 1535 101. Explores measurement and geometry; trigonometry of right triangles; consumer mathematics; and an introduction to probability and statistics. Lec. 3 hrs.

**Legal Research and Writing II LATC 162C (3)**

Applies skills acquired in legal research. Conducts advanced manual and automated legal research in the process of drafting legal correspondence, office and legal memoranda, pleadings, appellate briefs, and interrogatories.

**Introduction to Business OADM 104C (3)**

Examines and analyzes the basic structure and practices of the business community. Emphasizes modern business functions in a dynamic environment, the nature and scope of business components, the cause of business problems, and factors that tend to influence behavior in business organizations.

**Legal Environment of Business BLPC 214C (3)**

Introduces the American legal institutions. Examines the judicial, executive, and legislative branches of government. Explores judicial reasoning, administrative procedures, and law. Also examines the government regulation of business including contracts and torts. Explores the basic elements of determining contract or tort liability and the formation, operation, and discharge of contracts in a business context.

**Investigative Techniques and Evidence LATC 263C (3)**

Provides an overview of the law of evidence and its relationship to criminal and civil litigation. Additionally, the course introduces the techniques of fact investigations and verification associated with trial preparation.

**Law Office Administration LATC 278C (3)**

Examines, through an ethical lens, the basic management principles of the law office, including organization and administrative operations, the paralegal's administrative role and responsibility for maintaining the library, supervising other administrative staff, time-keeping, billing, and related systems.



## Education

### Early Childhood Education

#### Early Childhood/School Age (Pre-K – Grade 3) Option II Early Childhood (Elementary)–OPTION III

##### FSEM 101C: First Year Seminar (1)

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

##### ENGL 11C: English Composition I(3)

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.

##### MATH 101C: General College Mathematics I (3)

Provides mathematical skills, knowledge, and understanding necessary to function in a technological society. Topics include: problem solving; sets and logic; numeration and mathematical systems; linear equations and inequalities; and graphing. Lec. 3 hrs.

##### SPCH 115C: Public Speaking (3)

Investigates informative speaking, persuasion, group discussion, impromptu, manuscript, and extemporaneous formats; also includes basic speech writing and presentation of speeches.

##### SPCH 116C: Voice and Articulation (3)

Examines the basic factors involved in the production of sounds that create speech. Develop a flexible vocal and articulation mechanism that can be applied to conversation, sight, and prepared readings, acting, radio/television, teaching and presentational skills. Explores the concepts associated with career speech.

##### GEOG 105C: World Cultural Geography (3)

Investigates the spatial organization of human beings and their societies. Explores world distributions and patterns of population, cultural elements, settlements, livelihoods, and political orders as these are spatially related to the physical environment and to one another. The locational perspective examines where and why people occupy and utilize some portions of the earth's surface rather than others.

##### ECED 104C History and Philosophy of Early Childhood Education (3)

Traces the theoretical, social, and political roots of early childhood education. Discusses the impetus for the development of nursery schools, Head Start, special education programs, multicultural education, and child care. Highlights policy issues affecting young children and their families. **Field experiences required.**

##### ENGL 112C English Composition II (3)

Continues the study of the writing process begun in English Composition I. This course focuses on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of a research paper.

##### MATH 102C General College Mathematics II (3)

Continues 1535 101. Explores measurement and geometry; trigonometry of right triangles; consumer mathematics; and an introduction to probability and statistics. Lec. 3 hrs.

##### ENSC 107C Integrated Science I Lecture (3)

Explores the usefulness of science by presenting specific scientific information concerning the urban environment. Includes interdisciplinary topics such as plants, soil formation, basic chemistry, soil chemistry, measurements, human functions, nutrition, environmental diseases, and the history of African Americans in the development of science. Lec 3 hrs.

##### ENSC 108C Integrated Science II Lecture (3)

Examines how science aids in understanding basic human functions and in analyzing and solving human problems. Explores the human body in a disease and non-disease state.

##### SPED 204C Introduction to Education of Exceptional Children (3)

Studies the characteristics of exceptionality and the effects on how students learn. Examines each area of exceptionality, as well as historical development, basic concepts, current issues and programs, and future trends in special education. Emphasizes critical issues related to schools, family and society, existing attitudinal barriers, and current methods of support (Formerly Survey of Exceptional Children). Field experience required.

##### ECED 105C Principles of Child Development (3)

Presents human development through the life span, with special emphasis on typical and atypical cognitive, language, physical, social, and emotional development from birth through age 8. Requires twenty hours of clinical observation.

##### ECED 204C Curriculum Content in ECE (3)

Analyzes existing curricula emphases in Early Childhood Education as a basis for designing, developing, and evaluating curricula for use in early childhood education settings.

##### ECED 206C Infant Education (3)

Focuses on developmental characteristics of infants from the prenatal period through two years of age. Explores methods used to guide infants and toddlers within family and group care settings, and how infants develop in the context of the family, program, and society. Requires participation with infants.

##### ECED 207C Understanding Self and Relationships (3)

Explores dynamic socialization processes involving children, adolescents, peers, parents, and society. Discusses sources of developmental and individual differences in identity formation and attainment, as well as theories and research related to the social and emotional development of children and adolescents

##### ECED 208C Emergent Literacy (3)

Explores how language and literacy develop in young children. Identifies age-appropriate literacy activities for young children. Emphasizes an environment that encourages concepts and language development that make literacy practical.

##### ECED 209C Play Activities and Materials (3)

Examines the principles of evaluation and selection of play activities and materials for pre-school and children in grades 1-3. Explores the design of learning environments and play strategies appropriate for individuals and groups and for appropriate developmental levels.

##### ECED 214C Teacher, Child, School and Community Interaction (3)

Concentrates on giving students an insight into parental involvement with the child, the school, and the multi-cultural community. Provides opportunities for students to have firsthand experiences with community organizations and government agencies concerned with the welfare of young children. Prereq.: 1319 104, 105; 1321 222.

##### ECED 224C Planning and Administration of Early Childhood Programs (3)

Discusses guidelines to achieve quality programming for early childhood programs. Focuses on effective interpersonal communication skills in program management. principles of management and operation, and designing and scheduling appropriate space and activities.

##### ECED 230C Practicum I (3)



Provides directed observation and participation with preschool and primary grade (1-3) children. Focuses on instruments, skills, and assessment strategies of young children. Provides experience in team assessments. Requires lecture and 30-hour practicum.

**ECED 231C Practicum II (3)**

Provides direct observation and participation with preschool and primary grade (1-3) children. Focuses on management strategies and program activities for early childhood education. Allows opportunities to gain experience in assisting the classroom teacher. Requires lecture and 30-hour practicum

**ECED 245C The Child in the Family (3)**

Examines the influence of family interaction on the management of children. Explores personality development and the impact of parental practices on child rearing. Also examines current issues with appropriate multicultural examples, including child care and nontraditional parenting situations.

**Children's Literature (3)**

Enables pre-service teachers to develop the ability to select, present, and interpret literature appropriate to the ages and developmental stages of cultural, linguistic and ability-diverse learners, using evidence-based practices. Emphasizes the selection of books for children and the work of illustrators. Uses a literature-based reading approach.

**EDFN 204C Guiding Functions of the Teacher (3)**

Examines the essential teaching functions appropriate to the teacher's professional role. Emphasizes the design, delivery and assessment of developmentally appropriate learning activities to meet the needs of diverse learners.

**EDFN 204C History and Philosophy of Early Childhood Education (3)**

Traces the theoretical, social, and political roots of early childhood education. Discusses the impetus for the development of nursery schools, Head Start, special education programs, multicultural education, and child care. Highlights policy issues affecting young children and their families. **Field experiences required.**

**EDFN 205C Classroom Management (3)**

Provides instruction in the various techniques for effective management of a K-12 classroom. Emphasis is on creating positive learning environments and developing effective classroom instructional practices.

**EDFN 220C Foundations of Education (3)**

Presents historical, philosophical, psychological, and social foundations of education in America. Focuses on constitutional and statutory provisions for public school education. Emphasizes the role of teaching and learning in a multicultural environment.

**Field experience required.**

**EDFN Children and Youth in Urban Schools (3)**

Provides an overall perception and understanding of the school as an integral part of society in an urban environment. Emphasizes the role of the teacher in promoting and understanding multicultural awareness. Explores other major contemporary issues/concerns encountered by urban educators.

**EDPY 244C Human Development and Behavior (3)**

Presents a study of the intellectual, physical, emotional, and social growth processes over the life span. Emphasizes theories of growth, development, and learning. **Field experience required.**

**EDPY 214C Educational Psychology (3)**

Examines current theory and practice in the teaching/ learning process. Explores implications of theories for teaching/learning activities. Discusses methods of assessing student learning, performance assessments, and standardized tests. Prereq.: 1321

220 and 1321 222. **Field experience required.**

**RDNG 204C Tech For Aides in Read/Lang (3)**

**Course Description under review**

## **Graphic Design**

**FSEM 101C First Year Seminar (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**ENGL 111C English Composition I (3)**

Enables students to develop clear and effective expository writing skills by exploring, explaining, and identifying the steps involved in the writing process; includes selected readings and extensive practice in writing and examining a range of essays (e.g., definition, exemplification, process, analysis, comparison/contrast, cause and effect, classification, and argument), with special emphasis on the identification of text features; this course also reviews grammar, mechanics, and correct usage. It supports the English program's goals of fostering critical thinking and reading and the clear expression of ideas. Lastly, introduces the student to library resources.

**MATH 101C General College Mathematics I (3)**

Provides mathematical skills, knowledge, and understanding necessary to function in a technological society. Topics include: problem solving; sets and logic; numeration and mathematical systems; linear equations and inequalities; and graphing. Lec. 3 hrs.

**ARTD 105C Foundations I (3)**

Introduces the basic fundamentals of graphic communications and design. Focuses on core principles, aesthetics, conceptualization and visualization processes. Includes rapid drawing as an integral part of the problem solving process. Explores methods used to investigate, synthesize, and problem solve. Introduces the concepts of perspective, abstraction, and shape/symbol creation long with the proper use of color. Focuses on developing visualization skills as a means to communicate thoughts, ideas, and messages. Lec. 3 hrs.

**ARTS 101C Introduction to Drawing (3)**

Introduces the fundamentals of drawing, including the study of line, value, texture, space, linear perspective, and experimental approaches to making drawings using a variety of media. Open to all students.

**GRCT 109C Digital Applications (3)**

Introduces a series of digital applications used in the graphic communications, design and publishing fields: Adobe Photoshop, Adobe Illustrator and QuarkXPress. Offers a studio class with the objective of providing beginning students with the software and computer skills needed for more advanced classes in the curriculum. Lab. 6 hrs.

**ENGL 112C English Composition II (3)**

Continues the study of the writing process begun in English Composition I; focuses on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of an 8-10 page research paper.

**MATH 102C General College Mathematics II (3)**

Continues 1535 101. Explores measurement and geometry; trigonometry of right triangles; consumer mathematics; and an introduction to probability and statistics. Lec. 3 hrs.



**ARTD 124C Computer Art I (3)**

Introduces the creation and production of art using the computer as a creative tool. Explores the computer as a graphic tool. Provides an overview and exploration of graphic and paint software in a workshop atmosphere. Utilizes templates to learn computer basics, aesthetics and composition building. Focuses on paint programs, such as Painter and Photoshop. Explores the use of hardware, software, and other peripheral equipment.

**ARTS 145C Photography (3)**

Introduces a comprehensive approach to black and white photography as both a graphics, as well as a fine arts tool. Explores the use of the adjustable camera, the development of the negative, and the production of the photographic print. Studies techniques in composition, lighting, films, and dark room processing. Applies digital photography concepts. Requires the use of a 35mm camera.

**GRCT 107C Desktop Publishing (2)**

Introduces students to the basic fundamentals of desktop publishing using page layout software. Topics include basic page formatting, composition, proofreading, and layout skills in combination with the use of peripheral hardware, such as scanners, printers and digital storage devices. Tutorial lessons and problem solving projects are the primary instructional technique. Font management, color models, graphic formats, use of stock photography, etc. are also discussed. Lec. 2 hrs.

**GRCT 107C Desktop Publishing Lab (1)**

Applied experiences in laboratory setting to be taken concurrently with 1104 207. Lab. 3 hrs.

**ARTS 115C Visual Thinking (3)**

Introduces conceptual visual thinking and the development of visual literacy as it applies to communication design and the fine arts. This is an idea-oriented course designed to help students solve visual and artistic problems through invention and interpretation. Emphasizes imagination and experimentation with concepts and ideas, and explores interdisciplinary approaches to art and design. Values individual problem solving as well as group collaboration to produce creative work.

**ARTD 113C Graphic Design I (3)**

Introduces layout and design as concepts that form the foundation for problem-solving techniques in graphic design. These concepts are applied to print and other forms of digital media. Shape, composition, division of space, combined with type, art and color become a primary focus. Lec. 3 hrs., Lab. 2 hrs.

**ARTD 201C Computer Illustration I (3)**

Focuses on developing vector drawing skills while exploring the dynamics of color. Examines the fundamentals of picture making and image building techniques that are applied to visual communications. Explores composition, object construction, illustration techniques, and software.

**ARTD 126C Typography (3)**

Surveys the use of type as a graphic design element. Focuses on type selection, classifications, font usage, and type controls. Also explores type/font dynamics, creative manipulation, and special effects as these are applied to pages and publications, titles, web, media, and information designs and combines technical requirements and rules of typesetting using proper style guides in conjunction with the aesthetics of good typography.

**GRCT 113C Digital Imaging (2)**

Introduces Photoshop as an image editing tool and as a creative tool for problem solving. Explores techniques used to manipulate photographs and graphic attributes, including color, contrast, and other digital darkroom techniques. Also covers photo retouching, use of filters, duotones, color, scanning, masking and scaling as well as file formats, size and resolution factors with a focus on both web and traditional publishing issues. Lec. 2 hrs.

**GRCT 114C Digital Imaging Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with 1104 113. Lab. 3hrs.

**ARTD 213C Publication Design (3)**

Introduces electronic pre-press and the concepts in publication design that includes both traditional and digital applications. Instructs in techniques used for developing brochures, newsletters, and visual communication design, stressing typographic control and image manipulation, culminating in camera-ready documents.

**Web Design (3)**

ARTD 207C Description Under review

**History of Graphic Design (3)**

ARTD 208C Description Under review

**ARTD 275C Portfolio and Marketing Workshop (3)**

Focuses on preparing students for the job market through portfolio preparation and presentation. Provides techniques on how to prepare portfolios by revising, re-doing or creating new assignments. Discusses career guidelines, job pricing, and marketing tips. Portfolio review and resume are required. Prereq: Senior level in the AAS or BS program.

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**Graphic Communications Technology**

**FSEM 101C First Year Seminar (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**ENGL 111C English Composition I (3)**

Enables students to develop clear and effective expository writing skills by exploring, explaining, and identifying the steps involved in the writing process; includes selected readings and extensive practice in writing and examining a range of essays (e.g., definition, exemplification, process, analysis, comparison/contrast, cause and effect, classification, and argument), with special emphasis on the identification of text features; this course also reviews grammar, mechanics, and correct usage. It supports the English program's goals of fostering critical thinking and reading and the clear expression of ideas. Lastly, introduces the student to library resources.

**MATH 101C General College Mathematics I (3)**

Provides mathematical skills, knowledge, and understanding necessary to function in a technological society. Topics include: problem solving; sets and logic; numeration and mathematical systems; linear equations and inequalities; and graphing. Lec. 3 hrs.

**ARTD 105C Foundations of Design (3)**

Students are introduced to the basic fundamentals of graphic communications and design. Core principles, aesthetics, conceptualization and visualization processes are the focus of this class. Rapid drawing is taught as an integral part of the problem solving process; students are required to investigate, synthesize, and problem solve. They are introduced to perspective, abstraction, and shape/symbol creation with an introduction to the proper use of color. Students focus on developing visualization skills as a means to communicate thoughts, ideas, and messages. Lec. 3 hrs.





**GRCT 107C Desktop Publishing (2)**

Introduces students to the basic fundamentals of desktop publishing using page layout software. Topics include basic page formatting, composition, proofreading, and layout skills in combination with the use of peripheral hardware, such as scanners, printers and digital storage devices. Tutorial lessons and problem solving projects are the primary instructional technique. Font management, color models, graphic formats, use of stock photography, etc. are also discussed. Lec. 2 hrs.

**GRCT 107C Desktop Publishing Lab (1)**

Applied experiences in laboratory setting to be taken concurrently with 1104 207. Lab. 3 hrs.

**GRCT 109C Digital Applications (3)**

An entry-level course that introduces students to a series of digital applications used in the graphic communications, design and publishing fields: Adobe Photoshop, Adobe Illustrator and QuarkXPress. The course is a studio class with the objective of providing beginning students with the software and computer skills needed for more advanced classes in the curriculum. Lab. 6 hrs.

**ENGL 112C English Composition II (3)**

Continues the study of the writing process begun in English Composition I; focuses on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of an 8-10 page research paper.

**MATH 102C General College Mathematics II (3)**

Continues 1535 101. Explores measurement and geometry; trigonometry of right triangles; consumer mathematics; and an introduction to probability and statistics. Lec. 3 hrs.

**ARTD 113C Graphic Design I (3)**

Students apply basic design concepts to a variety of graphic communication formats. Layout and design form the foundation for graphic design problem solving techniques. Shape, composition, division of space, combined with type, art and color become a primary focus. Students produce advertising pieces, desktop designs, posters, cover, and other graphics. These concepts are applied to print and other forms of digital media. Lec. 3 hrs., Lab. 2 hrs.

**ARTD 126C Typography (3)**

This class is a comprehensive survey of type used as a graphic design element. Type selection, classifications, font usage, and type controls become a focus in this course. A further exploration of type/font dynamics, creative manipulation, and special effects as they are applied to pages and publications, titles, web, media, and information designs. The course also combines technical requirements and rules of typesetting using proper style guides in conjunction with the aesthetics of good typography.

**GRCT 113C Digital Imaging (2)**

This is an introductory class utilizing Photoshop as an image editing tool. Students manipulate photographs and graphic attributes, including color, contrast, and other digital darkroom techniques. Photo retouching, use of filters, duotones, color, scanning, masking and scaling are all topics learned by students. The course uses lectures to transmit relevant concepts and theory and laboratories to learn techniques that use Photoshop as a creative tool for problem solving. File formats, size and resolution factors are also addressed. The course focuses on both web and traditional publishing issues. Lec. 2 hrs.

**GRCT 114C Digital Imaging Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with 1104 113. Lab. 3hrs.

**CMOP 235C Introduction to Web Page Development and HTML (2)**

Discusses issues for Web page development, using hypertext markup language (HTML) and introduces authoring tools such as Dreamweaver and FrontPage.

**CMOP 236C Introduction to Web Page Development and HTML Lab (1)**

Provides hands-on technology-based support for the lecture course 3523 235.

**ARTD 213C Publication Design (3)**

Covers concepts in publication design that include both traditional and digital applications. Students perform intermediate level page, brochure, newsletter, and visual communication design. The class stresses typographic control and image manipulation. An introduction to electronic pre-press. Camera-ready preparation for printing technology will prepare students a good prospect for an overall job assignment.

**GRCT 209C Graphics Management (3)**

Applied management course which focuses on production, workflow, and the various stages of graphic communications, freelance design, and e-commerce. Covers quality control, cost factors, human resource issues, government regulations, and other managerial and financial techniques, including how to write a business plan. Lec. 3 hrs.

**GRCT 214C Design to Print Practicum I (2)**

Introduces the concepts and skill sets necessary to produce functional designs for digital output and print production. Covers theoretical as well as production skills as these relate to prepress, digital imposition, preflighting and digital output of files to various output devices including direct to plate, direct to press and wide-format ink jet printers. Lec. 2 hrs.

**GRCT 215C Design to Print Practicum I Lab (1)**

Applied experiences in laboratory setting to be taken concurrently with 1104 214 Lab. 3 hrs.

**ARTS 145C Photography (3)**

Introduces a comprehensive approach to black and white photography as both a graphics, as well as a fine arts tool; use of the adjustable camera; the development of the negative, and the production of the photographic print. Studies techniques in composition, lighting, films, and dark room processing. Applies digital photography concepts. A 35mm camera is required for the course.

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**Automotive Technology**

**FESM 101C First Year Seminar (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**APCT 104C Introduction to Applications of Computer Lecture (2)**

Identifies computer equipment; examines the functions of the components of a computer; binary, octal, and hexadecimal number systems; description of various programming languages; applications of computers; hands-on introduction to word processing, spreadsheets, database managers and microcomputer operating systems. Lec. 2 hrs.

**APCT 105C Introduction to Applications of Computer Laboratory (1)**

Laboratory associated with ATCT104, Lab. 2 hrs.

**PHIL 105C Introduction to Logic (3)**

Introduces the principles of correct reasoning, with emphasis on acquisition and strengthening of basic skills, such as recognizing arguments and analyzing them into their parts, distinguishing between inductive and deductive arguments, distinguishing between deductively valid and invalid arguments, and recognizing informal fallacies.

**PHIL 108C Introduction to Social Ethics (3)**



Introduces the theories people have held about the nature of morality and the ways these theories can be justified. Applies these theories to such social problems as abortion, sexual and racial discrimination, war, and poverty.

**SPCH 115C Public Speaking (3)**

Investigates informative speaking, persuasion, group discussion, impromptu, manuscript, and extemporaneous formats. Includes basic speech writing and presentation of speeches.

**ENGL 111C English Composition I (3)**

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.

**BUS 104C Introduction to Business (3)**

Examines and analyzes the basic structure and practices of the business community. Emphasizes modern business functions in a dynamic environment, the nature and scope of business components, the cause of business problems, and factors that tend to influence behavior in business organizations.

**ENGL 112C English Composition II (3)**

Focuses on analysis and argumentation. Culminates in the writing of a research paper.

**MATH 111C Technical Mathematics I (3)**

Provides introduction to algebraic concepts, definitions, notations, operations and symbols with emphasis on analysis and solution of applied problems. Includes algebraic fractions; exponential notation; linear and quadratic equations; simultaneous equations; inequalities; graphing; and linear programming. Lec. 3 hrs.

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**Aviation Maintenance Technology**

**FESM 101C First Year Seminar (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**ENGL 111C English Composition I (3)**

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.

**MATH 111C Technical Mathematics I (3)**

Provides introduction to algebraic concepts, definitions, notations, operations and symbols with emphasis on analysis and solution of applied problems. Includes algebraic fractions; exponential notation; linear and quadratic equations; simultaneous equations; inequalities; graphing; and linear programming. Lec. 3 hrs.

**AVMT 121C Aviation Maintenance Fundamentals (5)**

Introduces basic aircraft terminology and related federal aviation regulations, which include mechanic privileges, limitations, maintenance publications, forms and records, standard FAA aircraft, and repair and alteration drawings documentation. Examines the tasks required for aircraft ground handling, taxiing, and servicing. Also includes units on aircraft construction, nomenclature, data systems, basic aero-dynamics, and practical sciences applicable to the theory of flight of fixed and rotary wing aircraft. Lecture 5 hrs Practicum 12.5 hrs.

**AVMT 122C Aircraft Materials and Processes (5)**

Examines the design characteristics, material characteristics, typical construction, and the maintenance and repair of non-metallic airframe components and structures. Provides hands-on experience

with fabric covering, wood structures, finishes, and current techniques involving fiberglass, Kevlar, and graphite composites used as a primary structure on today's aircraft. Lecture 5 hrs Practicum 12.5 hrs.

**ENGL 112C English Composition II (3)**

Focuses on analysis and argumentation. Culminates in the writing of a research paper.

**MATH 112C Technical Mathematics II (4)**

Provides introduction to concepts, notations, operations, and symbols used in geometry, trigonometry, and calculus with emphasis on analysis and solution of applied problems. Includes exponential and logarithmic functions; geometry; trigonometric functions; solution of right and oblique triangles; radian measure; vectors; continuous functions and limits; derivatives and applications; integrals; and graphing functions. Lec. 4 hrs.

**AVMT 124C Aircraft Metallic Structures (5)**

Examines the design characteristics, materials, typical construction, and maintenance of metallic airframe structures, including monocoque, semimonocoque, tubular truss, and metallic honeycomb structures. Emphasizes maintenance and repair of these structures, along with the use of FAA-approved and/or accepted repair data typical riveted and welded repairs. Includes a welding repair laboratory using oxyacetylene and inert gas welding practices. Introduces aircraft ice and rain control and aircraft fuel systems. Lecture 5 hrs Practicum 12.5 hrs.

**AVMT 124C Aircraft Systems and Components (5)**

Examines the following aircraft systems: landing gear, wheels, tires, brakes, hydraulics, fuel systems, cabin atmospheric control, and ice and rain control. Students are required to perform a 100-hour conformity inspection on a particular aircraft. Lecture 5 hrs Practicum 12.5 hrs.

**PHYS 101C Introduction to College Physics I (3)**

Introduces laws of motion and the concept of energy, thermal and elastic properties of matter, and theories of waves and sound. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour per week for problem solving. Lec 3 hrs.

**PHYS 103C Introduction to College Physics I Laboratory (1)**

Accompanies Introduction to College Physics I Lecture and must be taken concurrently with this lecture course. Lab 2 hrs. Laboratory section must correspond to the lecture section.

**GEOG 104C World Physical Geography (3)**

Presents a spatial systematic view of the earth and relates certain selected physical phenomena to the human-nature complex of the earth. These relationships emphasize the roles of the physical elements in man's environment. Topics include; geographic tools, earth-sun relationships, atmosphere, lithosphere, hydro-sphere, and biosphere.

**AVMT 212C Aircraft Reciprocating Engine: Theory and Overhaul (5)**

Introduces aircraft reciprocating engine design and principles of operation. Develops into design characteristics and variables affecting engine power output. Provides practical training in engine inspection, overhaul, repair, run-up, and fault diagnosis. Examines engine lubrication, oil system configuration, oil analysis, and oil system fault isolation. Lecture 5 hrs Practicum 12.5 hrs.

**AVMT 215C Aircraft Engine Systems and Components (5)**

Introduces the following engine systems: engine fuel systems, fuel metering, induction systems, engine codlings, exhaust systems, and propeller systems. Requires the student to perform a 100-hours conformity inspection on an aircraft engine. Lecture 5 hrs Practicum 12.5 hrs.

**AECT 205C Introduction to CADD Construction Documents (3)**



Introduces the student to the general use of the computer as a design and production tool. The use of Computer-Aided Design Drafting (CADD) programs as a drawing and specification tool in office production and management will be studied. The course will further reinforce the construction document production techniques and principles learned in previous technical courses. Lec. 2 hrs. Prac. 3 hrs.

**PHYS 102C Introduction to College Physics II (3)**

Continues Introduction to College Physics I Lecture. Includes the study of electricity and magnetism, electronics, geometrical and physical optics, and a description of atomic and nuclear structure. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour for problem solving. Lec 3 hrs.

**PHYS 104C Introduction to College Physics II Laboratory (1)**

Accompanies Introduction to College Physics II Lecture and must be taken concurrently with this lecture course. Lab 2 hrs. Laboratory section must correspond to the lecture section.

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### Computer Science Technology

**FESM 101C First Year Seminar (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**ENGL 111C English Composition I (3)**

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.

**MATH 111C Finite Mathematics (3)**

Investigates systems of linear equations, matrices and linear programming; elementary functions, especially logarithmic and exponential functions; and applications to business situations. Lec. 3 hrs.

**MATH 113C Pre-calculus With Trigonometry I (3)**

Examines algebraic notation and symbolism; exponents and radicals; algebraic functions; solution of linear and quadratic equations and inequalities; relations and functions; rational functions and their graphs; conic sections; exponential and logarithmic functions and their graphs. Provides instruction primarily for students preparing to take calculus. Lec. 3 hrs.

**APCT 104C Introduction to Applications of Computer Lecture (2)**

Identifies computer equipment; examines the functions of the components of a computer; binary, octal, and hexadecimal number systems; description of various programming languages; applications of computers; hands-on introduction to word processing, spreadsheets, database managers and microcomputer operating systems. Lec. 2 hrs.

**APCT 105C Introduction to Applications of Computer Laboratory (1)**

Laboratory associated with 4528 104, Lab. 2 hrs.

**APCT 110C Intro to Programming Lecture (2)**

Discusses development of algorithms to solve scientific and commercial problems; use of counting, loops, and termination techniques; array structures; top-down design; standard and structured flowcharting of algorithms using conventional symbols. Lec. 2 hrs.

**APCT 111C Intro to Programming Lab (1)**

Laboratory associated with 4528 110, Lab 2 hrs.

**ENGL 112C English Composition II (3)**

Continues the study of the writing process begun in English Composition I; focuses on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of an 8-10 page research paper.

**MATH 215C Calculus for Business, Social & Life Sci. (4)**

Presents concepts and skills on limits and continuity; differential and integral calculus with applications from business, economics, and the social and biological sciences. Lec. 4 hrs.

**MATH 114C Pre-calculus With Trigonometry II (3)**

Studies trigonometric functions, identities, and their applications; solution of trigonometric equations; systems of equations and inequalities; operations with complex numbers; polynomials; and mathematical induction. Lec. 3 hrs.

**PHIL 105C Introduction to Logic (3)**

Discusses the principles of correct reasoning, with emphasis on acquisition and strengthening of basic skills, such as recognizing arguments and analyzing them into their parts; distinguishing between inductive and deductive arguments; distinguishing between deductively valid and invalid arguments, and recognizing informal fallacies.

**APCT 231C Computer Science I Lecture (3)**

Examines algorithm and program development using a higher-level programming language, such as C++. Explores use of control structures, functions, and arrays. Introduces objects. Lec. 3 hrs.

**APCT 233C Computer Science I Laboratory (1)**

Must be taken concurrently with 4 528 231, Lab 3 hrs.

**APCT 115C Foundations of Computing (3)**

Introduces applied concepts of iteration, induction, and recursion, functions and relations, propositional logic and predicate logic, graph and tree data structures, Boolean and computer logic, finite state machines, and algorithmic problem solving. Lec. 3 hrs.

**APCT 232C Computer Science II Lecture (3)**

Introduces data abstraction and objects, recursion, sorting algorithms and data structures, including stacks, queues, linked lists, and trees. Lec. 3 hrs.

**APCT 234C Computer Science II Lab (1)**

Must be taken concurrently with 4528 232, Lab 3 hrs.

**PHYS 101C Introduction to College Physics I (3)**

Introduces laws of motion and the concept of energy, thermal and elastic properties of matter, and theories of waves and sound. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour per week for problem solving. Lec 3 hrs.

**PHYS 103C Introduction to College Physics I Laboratory (1)**

Accompanies Introduction to College Physics I Lecture and must be taken concurrently with this lecture course. Lab 2 hrs. Laboratory section must correspond to the lecture section.

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### Construction Management

**FESM 101C First Year Seminar (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**ENGL 111C English Composition I (3)**

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.



**MATH 111C Technical Mathematics I (3)**  
Provides introduction to algebraic concepts, definitions, notations, operations and symbols with emphasis on analysis and solution of applied problems. Includes algebraic fractions; exponential notation; linear and quadratic equations; simultaneous equations; inequalities; graphing; and linear programming. Lec. 4 hrs.

**AETC 101C Architectural Drawing and Design I (3)**  
Parallel development of mechanical drawing, basic model making, and simple 3-D computer aided designs are taught as it facilitates their integration as is common in an architectural office. Spatial visualization exercises in point, line, plane in orthographic, isometric drawings, reinforces descriptive geometry as a means to 3 dimensional perceptions critical to technical and design drawing skills. Lec. 2 Hrs. Prac. 3 Hrs.

**ENGL 111C English Composition II (3)**  
Focuses on analysis and argumentation. Culminates in the writing of a research paper.

**MATH 112C Technical Mathematics II (4)**  
Provides introduction to concepts, notations, operations, and symbols used in geometry, trigonometry, and calculus with emphasis on analysis and solution of applied problems. Includes exponential and logarithmic functions; geometry; trigonometric functions; solution of right and oblique triangles; radian measure; vectors; continuous functions and limits; derivatives and applications; integrals; and graphing functions. Lec. 4 hrs.

**Materials and Methods of Construction I (3)**  
Familiarizes the students with the basic properties of wood, masonry, metals, cementitious materials, and their common uses. The students acquire an elementary understanding of primary construction problems, solution, and vocabulary related to these materials. Lec. 2 Hrs., Prac. 3 Hrs.

**AETC 206C CAD Documents, Specification Writing and Estimating (3)**  
Explores the general use of Computer Aided Design Drafting (CADD) programs as a drawing and production tool for data and information coordination and communication. Emphasizes the drawing's relationship to the development of written specification and construction cost estimation. Lec, 2 Hrs., Lab 3 Hrs.

**ENGL 113C Technical Writing (3)**  
Introduces students to the general concepts of technical writing, idea development, and physical layout in different career fields. Also emphasizes proofreading and editing.

**PHYS 101C Introduction to College Physics I (3)**  
Introduces laws of motion and the concept of energy, thermal and elastic properties of matter, and theories of waves and sound. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour per week for problem solving. Lec 3 hrs.

**PHYS 103C Introduction to College Physics I Laboratory (1)**  
Accompanies Introduction to College Physics I Lecture and must be taken concurrently with this lecture course. Lab 2 hrs. Laboratory section must correspond to the lecture section.  
Course Descriptions

## **Mortuary Science**

**FESM 101C First Year Seminar (1)**  
The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**ENGL 111C English Composition I (3)**  
Enables students to develop clear and effective expository writing skills by exploring, explaining, and identifying the steps involved in the writing process; includes selected readings and extensive practice in writing and examining a range of essays (e.g., definition, exemplification, process, analysis, comparison/contrast, cause and effect, classification, and argument), with special emphasis on the identification of text features; this course also reviews grammar, mechanics, and correct usage. It supports the English program's goals of fostering critical thinking and reading and the clear expression of ideas. Lastly, introduces the student to library resources.

**ENGL 112C English Composition II (3)**  
Continues the study of the writing process begun in English Composition I; focuses on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of an 8-10 page research paper.

**MATH 101C General College Mathematics I (3)**  
Provides mathematical skills, knowledge, and understanding necessary to function in a technological society. Topics include: problem solving; sets and logic; numeration and mathematical systems; linear equations and inequalities; and graphing. Lec. 3 hrs.

**MATH 102C General College Mathematics II (3)**  
Explores measurement and geometry; trigonometry of right triangles; consumer mathematics; and an introduction to probability and statistics. Lec. 3 hrs.

**ENGL 115C Public Speaking (3)**  
Investigates informative speaking, persuasion, group discussion, impromptu, manuscript, and extemporaneous formats; also includes basic speech writing and presentation of speeches.

**PSYC 111C Fundamentals of Human Anatomy & Physiology I (3)**  
Focuses on the human body as it relates to function, organization, and interrelationship of body structures as they form an integrated functional organism. Lec. 3 hrs.

**PSYC 113C Fundamentals of Human Anatomy and Physiology I Laboratory (1)**  
Examines the cellular, tissue, and organ levels of the organization of the human body and how these units coordinate activities and function in the living organism. Lab 3 hrs.

**MSTC 104C Funeral Service Orientation (3)**  
Examines the inception of the funeral service, organizational structure, and avenues of expansion. Also analyzes trends and traditions, Lec. 3 hrs.

**MSTC 107C History and Sociology of Funeral Service (3)**  
Discusses the history of funeral service with emphasis on ethnic groups that have influenced contemporary funeral principles and practices. Also explores the social phenomena that affect all elements of funeral service. Lec. 3 hrs

**PSYC 112C Fundamentals of Human Anatomy and Physiology II (3)**  
Details a continuation of Fundamentals of Human Anatomy and Physiology I. Emphasizes body systems and how they contribute to homeostasis. Lec. 3 hrs.

**PSYC 114C Fundamentals of Human Anatomy and Physiology II Laboratory (1)**

Focuses on detailed examination of the structure and function of the body systems with emphasis on balanced coordination of the living organism. Lab 3 hrs.

**ECON 201C Principles of Macroeconomics (3)**  
Introduces supply and demand, income and employment theories. Analyzes the causes of inflation and unemployment, and the policy alternatives for affecting macroeconomic change. Discusses the institutional arrangements of a market economy.



**MSTC 105C Descriptive Pathology (3)**

Examines medical terminology, various types of communicable diseases and how they may be isolated, the nature and causes of diseases, disturbances in circulation, neoplasia, cysts, forensic pathology, and the diseases of the blood and body systems. Lec. 3 hrs.

**MSTC 135C Funeral Service Law (3)**

Examines the legal ramifications regarding the sources of mortuary law, legal status of a dead human body, rights and duties of disposal, and the rights of parties obligated for disposal of human remains. Explores the rights and duties of the mortician, liability for funeral expenses, and the laws governing interment and disinterment. Lec. 3 hrs.

**MSTC 104C Introduction to Applications of Computer Lecture (2)**

Identifies computer equipment; examines the functions of the components of a computer; binary, octal, and hexadecimal number systems; description of various programming languages; applications of computers; hands-on introduction to word processing, spreadsheets, database managers and microcomputer operating systems. Lec. 2 hrs.

**MSTC 105C Introduction to Applications of Computer Laboratory (1)**

Laboratory associated with 3528 104, Lab. 2 hrs.

**ACCT 201C Principles of Accounting I (3)**

First half of the elementary accounting year should be followed immediately by 2201 202. Includes the principles of accrual-basis accounting, the accounting cycle, merchandising transactions, treatment of inventories, cash, internal control, receivables, plant assets, and other topics

**MSTC 124C Theories of Embalming and Disposition (3)**

Analyzes the objectives of embalming, disposition, signs and tests for death, post mortem changes of the body, pre-embalming techniques, and embalming practices from 4,000 B.C. to present.

**MSTC 131C Restorative Art I (3)**

Introduces the physiognomy, surface bones of the cranium and face, modeling techniques, head shapes, facial profiles, and structures of the ear, nose, mouth, and eyes.

**MSTC 155C Small Business Management for Funeral Service (3)**

Analyzes small business management including the role of small businesses in the United States; problems and risks of business ownership; buying an existing business; starting a new business and marketing. Legal forms of business ownership, contract law, Uniform Commercial Code, laws governing negotiable instruments, and funeral service software applications will also be introduced.

**MSTC 213C Restorative Art II (Lecture) (2)**

Examines restorative treatment outlines for, among other things, burns, bullet wounds, excisions, fractures, and decapitations. Also explores the color theory with emphasis on waxes and cosmetics. Lec. 2 hrs.

**MSTC 214C Restorative Art II (Laboratory) (2)**

Instructions in restoration techniques regarding correct form, contour, color and shape. Lab. 4 hrs.

**MSTC 220C Embalming and Disposition Principles I (Lecture) (1)**

Examines the theory and application of the instruments, accessories, and materials necessary for embalming and disposition. Explores methods for case analysis, positioning of the body, posing of features, injection, raising and selecting arteries. Also examines the classification of anatomical and linear guides, embalming chemical solutions, dilutions, and drainage types. Lec. 1 hr.

**MSTC 223C Embalming and Disposition Principles I (Laboratory) (2)**

Examines the techniques involved in embalming human remains, the theory of embalming practices, and laboratory management. Lab. 6 hrs.

**MSTC 205C Funeral Service Management and Principles (2)**

Concentrates on the responsibilities of licensure and professional practices, emphasizing personnel management, facilities, and other resources. Explores techniques for implementing and directing funerals according to customers' sociological, theological, and psychological needs. Lec. 2 hrs.

**MSTC 206C Funeral Service Management and Principles Practicum (3)**

Provides field experience in the technical and administrative aspects of the funeral service profession. Lab 6 hrs.

**MSTC 230C Embalming and Disposition Principles II (Lecture) (1)**

Continues the study of the embalming process. Covers cavity treatment, autopsies, necropsies, or postmortem examinations, postmortem conditions and their embalming treatments, and disaster management related to embalming. Lec. 1 hr.

**MSTC 232C Embalming and Disposition Principles II (Laboratory) (2)**

Continues the study of embalming of human remains, the theory of embalming practices, and laboratory management. Lab 6 hrs.

**MSTC 254C Psychology of Grief (3)**

Examines the mental processes associated with the role of the funeral director in grief counseling, death, dying, immortality, normal and abnormal grief reactions, including the concepts of "grief work" and the impact of death on the bereaved. Lec. 3 hrs.

**MSTC 294C National Board Seminar (1)**

Provides a methodical review of all areas of funeral service, emphasizing on specific competencies necessary for passing the National Board Examination as well as State Licensure Examinations. Lec. 1 hr.

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***Fire Science Technology***

**FISC 101C Fire Protection and Organization (3)**

Covers the philosophy and history of fire protection, history of loss life through fire, and organization and administration of municipal and industrial fire protection. Lec. 3 hrs

**FISC 102C Fire Prevention (3)**

Covers the organization and administration of the Fire Prevention Bureau, analysis of fire inspection techniques, public relations, and education programs. Studies the properties of fire-hazard material, fire suppression equipment, and basic firefighting tactics Lec. 3 hrs.

**FISC 103C Building Construction (3)**

Covers the fundamentals of building construction and design. Gives special consideration to unique properties in the District of Columbia, such as monuments and government buildings. Lec. 3 hrs.

**FISC 204C Fire Science Hydraulics (3)**

Covers fluids of rest and in motion, principles of viscous turbulent flow, impulse and momentum concepts. Also examines pumps, turbines, and meters. Lec. 3 hrs.

**FISC 205C Fire Protection Systems (3)**

Covers the design and installation of standard and special extinguishing systems, automatic sprinklers, detectors, alarms, and standpipes. Lec. 3 hrs.

**FISC 206C Fire Safety Codes and Standards (3)**

Covers national building codes, with particular emphasis on the District of Columbia's codes. Lec. 3 hrs.

**FISC 307C Hazardous Materials (3)**

Covers hazardous materials, including chemicals, gases, liquids, and radioactive matter. Also discussed storage, handling, transportation, and fire service problems. Lec. 3 hrs.

**FISC 308C Arson Investigation (3)**

Covers the history, development, and philosophy of fire investigation and detection, including inspection techniques, gathering of evidence and development of technical reports,



fundamentals of arson investigation, and processing of criminal procedures. Lec. 3 hrs.

**FISC 409C Advanced Fire-Fighting Tactics and Strategy (3)**

Covers firefighting tactics, including preplanning, command post operations, utilization of manpower and equipment, water supply problems, and communications. Lec. 3 hrs.

**FISC 410C Urban Fire Safety Seminar (3)**

Examines the contemporary issues of fire safety in relationship to Washington's metropolitan environment presented. Lec. 3 hrs.

**FISC 495C Independent Study and Research (3)**

Involves an individual study of significant topics of interest. Requires consent of instructor and Department Project Director.

**Associate in Applied Science Degree in Nursing**

**FESM 101C First Year Seminar (1)**

The First Year Seminar is a unique transition course designed to facilitate students' integration into the learning community of the community college. The course enhances students' skills for academic success, develops students' understanding of community college culture, provides individualized academic advising, and fosters students' meaningful educational engagement. The course also encourages students to participate actively in the community college and to reflect upon their experiences.

**ENGL 111C English Composition I (3)**

Focuses on expository writing. Includes selected readings and extensive practice in writing essays (e.g., analysis, comparison and contrast, cause and effect). Also reviews grammar and introduces the student to library resources.

**ENGL 112C English Composition II (3)**

Focuses on analysis and argumentation. Culminates in the writing of a research paper.

**MATH 101C General College Mathematics I (3)**

Provides mathematical skills, knowledge, and understanding necessary to function in a technological society. Topics include: problem solving; sets and logic; numeration and mathematical systems; linear equations and inequalities; and graphing. Lec. 3 hrs.

**MATH 102C General College Mathematics II (3)**

Explores measurement and geometry; trigonometry of right triangles; consumer mathematics; and an introduction to probability and statistics. Lec. 3 hrs.

**BIOL 111C Fundamentals of Human Anatomy & Physiology I (3)**

Focuses on the human body as it relates to function, organization, and interrelationship of body structures as they form an integrated functional organism. Lec. 3 hrs.

**BIOL 113C Fundamentals of Human Anatomy and Physiology I Laboratory (1)**

Examines the cellular, tissue, and organ levels of the organization of the human body and how these units coordinate activities and function in the living organism. Lab 3 hrs.

**BIOL 112C Fundamentals of Human Anatomy and Physiology II (3)**

Details a continuation of Fundamentals of Human Anatomy and Physiology I. Emphasizes body systems and how they contribute to homeostasis. Lec. 3 hrs.

**BIOL 114C Fundamentals of Human Anatomy and Physiology II Laboratory (1)**

Focuses on detailed examination of the structure and function of the body systems with emphasis on balanced coordination of the living organism. Lab 3 hrs.

**PSYC 201C Principles of Psychology I (3)**

Introduces students to the history, methods, major theoretical viewpoints, and concepts of scientific psychology. Provides non-

majors with an overview of the field of psychology; majors gain a foundation for further study.

**CHEM 105C Fundamentals of Chemistry (3)**

Surveys the essential concepts of inorganic chemistry with emphasis on health-related applications. When taken to satisfy the science requirement, concurrent enrollment in CHEM 106C (Fundamentals of Chemistry Laboratory) is required. Lec. 3 hrs.

**CHEM 106C Fundamentals of Chemistry Laboratory (1)**

Introduces basic laboratory techniques through a collection of experiments designed for students who have little or no laboratory experience. Introduces basic laboratory techniques. Requires concurrent enrollment in CHEM 105C. Lab 3 hrs.

**BIOL 245C Clinical Microbiology (3)**

Emphasizes the structure, function, and pathogenic nature of various microorganisms as they relate to infection, body resistance, and diagnostic testing. Lec. 3 hrs., Prereq.: 1401 102, 104 Co-req.: BIOL 246C.

**BIOL 244C Clinical Microbiology Laboratory (1)**

Focuses on exercises that involve the use of micro-biological techniques in culturing select groups of microorganisms. Prereq: BIOL 102C, 104C. Co-req.: BIOL 245C.

**NURS 100C Concepts Basic to Nursing Theory (2)**

Examines the developments and trends in nursing related to social, scientific, and technological influences. Covers the ethical, legal and communication concepts that impact nursing and the organization of the health care delivery system. Also explores the changing role functions, education, research, as well as, the philosophy of the Nursing Program. Emphasizes man as a self-care agent, the health-illness continuum and the nursing process. Lec. 2 hrs. Prereq. BIOL 112C, BIOL 114C, PSYC 201C, MATH 101C, CHEM 105C, CHEM 106C, BIOL 244C, BIOL 245C. Co-req: NURS 105C, NURS 115C.

**NURS 105C Nursing Pharmacology Theory (3)**

Explores concepts in the pharmacodynamics of drugs and their relation to the care of clients. Examines basic principles in the administration of medications and mathematical dosage calculations. Lec. 3 hrs. Prereq. BIOL 112C, BIOL 114C, PSYC 201C, MATH 102C, ENGL 112C, CHEM 105C, CHEM 106C, BIOL 244C, BIOL 245C. Co-req: NURS 100C, NURS 115C.

**NURS-115 C Foundations of Nursing Theory/Practicum (5)**

Explores the lecture, laboratory and practicum and is designed to provide content, which focuses on the development of basic concepts related to health, normal aging, and nursing practice. Covers the principles of communication, legal, ethical, nutritional, and pharmacological content related to the basic technologies. Introduces the nursing process within the context of the practicum component. Focuses on the development of a plan of care emphasis on assessment. Also examines basic nursing technologies and underlying scientific principles in the on-campus laboratory and applies them in long term care facilities Prereq.: BIOL 112C, BIOL 114C, PSYC 201C, MATH 102C, ENGL 112C, CHEM 105C, CHEM 106C, BIOL 244C, BIOL 245C. Co-req: NURS 100C, NURS 105C.

**NURS 116C Medical-Surgical Adults I Theory/Practicum (5)**

Introduces the theoretical foundations needed to assist adults experiencing acute and chronic health deviations. Emphasizes diagnosis, pathophysiology, and dependent and independent modes of treatment. Integrates pharmacological and nutritional concepts. Introduces the Medical-Surgical experience in an acute and chronic setting within the practicum component. Application of the nursing process is continued with emphasis on planning and interventions. Prereq: NURS 100C, NURS 105C, NURS 115C Coreq: NURS 125C.



**NURS 125 C Maternity-Newborn Nursing Theory/Practicum (2)**

Focuses on the trends, issues, child bearing, universal developmental, and health deviations [of?] self-care requisites related to maternity nursing. Emphasis is placed on the nursing process, critical thinking, therapeutic intervention and communication. In the practicum component of this course the student is provided the opportunity to use the nursing process in the promotion and maintenance of optimal family health within the maternity and neonatal setting. Prereq: NURS 100C, NURS 105C, NURS 115C Coreq: NURS 116C.

**NURS 190C LPN Validation Theory/Laboratory Lecture 3 hours  
laboratory 3 hours (4)**

Validates and enhances integrative concepts of the Licensed Practical Nurse (LPN) that provide the foundation for registered nursing practice. Explores selected theories, concepts, and issues that support professional practice, including therapeutic communication, problem solving, critical thinking, the nursing process, teaching-learning, planning nursing care, values clarification, and standards of professional nursing. Provides the foundation for registered nurse practice. Student must demonstrate competency in selected basic nursing skill in the on-campus laboratory. Applies selected theories and concepts presented in the theory component of this course. Refines and updates previous learning in addition to defining goals for a successful transition into a Registered Nursing (RN) program. Prereq: BIOL 112C, BIOL 114C, PSYC 201C, MATH 102C, ENGL 112C, CHEM 105C, CHEM 106C, BIOL 244C, BIOL 245C. Co-req: NURS 105C.

**NURS 219C Pediatric Nursing Care Theory/Practicum (5)**

Focuses on the theoretical foundations of pediatric nursing. Emphasizes critical thinking, therapeutic interventions and communication. In the practicum component of this course, provides the student the opportunity to use the nursing process in health promotion and illness care of children and their families through adolescence in the pediatric setting. Prereq: NURS 100C, NURS 105C, NURS 115C, NURS 116C, NURS 125C Coreq: NURS 230C.

**NURS 230C Mental Health Nursing Theory/Practicum (5)**

Focuses on the application of the nursing process in the care of adults with selected psychiatric-mental health deviations. Discusses dependent and independent modes of treatment related to each deviation. Emphasizes assessment, planning, implementation, and evaluation. Stresses scientific rationales for interventions. Provides the student with an opportunity to apply therapeutic intervention and interpersonal and communication skills with clients in mental health settings. Empathizes the planning and implementation phases of the nursing process in the clinical setting. Prereq: NURS 100C, NURS 105C, NURS 115C, NURS 116C, NURS 125C, Coreq: NURS 219C.

**NURS 235C Medical-Surgical Adults II Theory/Practicum (8)**

Continues the course in the nursing care of the adult client. Emphasizes the pathophysiology, related diagnostic procedures and treatment modalities of specific health deviations affecting the adult. Also focuses on critical thinking and therapeutic interventions. Provides the student with the skills needed to manage the care of persons with complex multi-system health deviations. Emphasizes interdisciplinary team functioning and small group patient assignments. Facilitates the transition into nursing practice. Prereq: NURS 100C, NURS 105C, NURS 115C, NURS 116C, NURS 125C, NURS 219C, NURS 230C Coreq: NURS 240C, NURS 290C.

**NURS 240C Senior Nursing Process Lab (1)**

Uses computer instruction to prepare the graduating student for the NCLEX examination.. Lab. 3 hrs. Prereq: NURS 100C, NURS 105C, NURS 115C, NURS 116C, NURS 125C, NURS 219C, NURS 230C Coreq: NURS 240C, NURS 290C, familiarity with the internet.

**NURS 290C Nursing Seminar, A.A.S. (2)**

Explores issues and basic concepts essential to the role of the associate degree nurse in a variety of structured health care settings. Emphasizes the graduate's entry into a first level nursing position. Lec. 2 hrs. Pre req: NURS 100C, NURS 105C, NURS 115C, NURS 116C, NURS 125C, NURS 219C, NURS 230C Co req: NURS 240C, NURS 290C

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**English, ESL, World Languages, & Public Speaking**

**ENGL 014C Reading Improvement (3)**

Designed to strengthen reading comprehension. Stresses reading practice, college-level reading skills, and the integration of reading and writing.

**ENGL 015C English Fundamentals (3)**

Introduces the basics of the writing process that provide a foundation for clear and effective written expression by emphasizing grammatical correctness, sentence clarity, and paragraph effectiveness.

**ENGL 111C English Composition I (3)**

Develops clear and effective expository writing skills by exploring, explaining, and identifying the steps involved in the writing process. Examines selected readings and which provide extensive practice in critical thinking, reading, and writing using rhetorical strategies (e.g., definition, exemplification, process, analysis, comparison/contrast, cause and effect, classification, and argument), with special emphasis on identifying text features. Reviews grammar, mechanics, and correct usage. Supports the English program's goals of fostering critical thinking, reading, and writing the clear expression of ideas. Also includes an introduction to library resources.

**ENGL 112C English Composition II (3)**

Continues the study of the writing process begun in English Composition I with a focus on argumentation and analysis with extensive practice in writing and in depth critical thinking through the use of supplemental readings; the course culminates in the writing of an 8-10 page research paper.

**ENGL 113C Technical Writing (3)**

Introduces the general concepts of technical writing, idea development, and physical layout applicable to different career fields. Also emphasizes proofreading and editing.

**English as a Second Language (ESL)**

Examines the areas of grammar, reading, writing, speaking, and listening using four different levels: Basic English I and II, Intermediate English I and II, Advanced English I, and Advanced English II. Placement of newly admitted students is determined by TOEFL scores. The ESL program does not satisfy degree requirements.

**ESL Basic English I (3)**

Introduces English structures to students with little knowledge of the language. Emphasizes correct oral and written production of Basic English patterns. To be taken concurrently with ESL Basic English II.

**ESL Basic English II (3)**

Focuses on perfecting simple sentence constructions and exploring more complex ones. Reinforces knowledge of the structures studied

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in Basic English I. Emphasizes Basic English patterns, simple tenses, noun phrases, and common sentence structures.

**ESL 007C Intermediate English I (3)**

Reviews the principles of writing while focusing on paragraph structure and organization, formatting, and revision. Reviews the basics of Standard English grammar including punctuating complex and compound sentences, fixing run-ons, and avoiding fragments. To be taken concurrently with Intermediate English II.

**ESL 008C Intermediate English II (3)**

Focuses on strengthening reading, listening, and critical thinking skills. Works with a variety of academic and general reading materials to develop basic reading skills (such as skimming for main ideas and scanning for specific information), as well as additional skills (such as making inferences and distinguishing between fact and opinion). Demonstrates how to deduce the meaning of unfamiliar words from contextual and structural clues.

**ESL 012C Advanced English I (9)**

Covers all language skills using an interactive approach. Exercises critical thinking skills and offers in-depth practice of vocabulary, grammar, reading, writing and comprehension skills. Designed to help acquire the more advanced reading and writing skills necessary to proceed to Advanced English II.

**ESL 013C Advanced English II (6)**

Examines all language skills using a comprehensive, interactive approach. Provides opportunities for critical thinking and in-depth practice of vocabulary, grammar, writing and comprehension skills. Enhances conversational skills acquired through advanced reading and writing exercises. Equips with the reading, writing, and thinking skills that are critically necessary to succeed in subsequent English, general education, liberal arts, and technical /occupational courses. *(Note: Students at this level should have a very good command of the English language and be prepared to learn the more complex nuances of the language.)*

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**World Languages**

**SPAN 101C Beginning Spanish I (3)**

Teaches the basic skills of comprehension, speaking, reading, writing, and knowledge of the culture of the Spanish-speaking world. Provides extensive practice through situational drills for students who have no previous knowledge of the language. Offers the first course of a two-semester sequence. Requires attendance in the Language Laboratory.

**SPAN 102C Beginning Spanish II (3)**

Provides further practice in the basic skills of listening, speaking, reading, writing, and cultural knowledge. Offers the second course within a two-semester sequence. Requires completion of the Language Laboratory experience.

**FREN 101C Beginning French I (3)**

Teaches the four basic language skills of comprehension, speaking, reading, and writing, as well as culture. Provides practice in conversation for students who have no previous knowledge of the language. Gives first level course of a two-semester required sequence. Requires attendance in Language Laboratory.

**FREN 102C Beginning French II (3)**

Expands the acquisition of the four basic language skills of comprehension, speaking, reading, and writing, as well as culture. Provides practice in conversation. Requires placement examination. Provides the second level course of a two-semester sequence. Language Laboratory attendance required.

**SPCH 115C Public Speaking (3)**

Introduces students to the basic principles of effective oral communication. Emphasis is placed upon speeches used in business, educational, and political activities. Special attention is given to informative and persuasive extemporaneous speeches.

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**Life and Physical Sciences**

**BIOLOGY**

**BIOL 101C: BIOLOGICAL SCIENCE I LECTURE (3)**

Introduces the concepts of modern biological principles, with emphasis on the physical and chemical basis of life processes. 3 Lecture hours. Course requisite: 1401-103.

**BIOL 103C: BIOLOGICAL SCIENCE I LABORATORY (3)**

Focuses on the experimental principles of the physical and chemical processes of life. 3 laboratory hours. Course requisite: 1401-101; Course prerequisite: 1401-101, 1401-103

**BIOL 102C: BIOLOGICAL SCIENCE II LECTURE (3)**

Presents the structural and functional features of animal and plant systems, including interactions existing between major groups of organisms. 3 Lecture hours. Course requisite: 1401-104

**BIOL 104C: BIOLOGICAL SCIENCE II LABORATORY (3)**

Examines unifying relationships between living organisms through dissection of a representative vertebrate. Also emphasizes energy, respiration, structure, and function of organs, organ systems, and the total organism. 3 Laboratory hours. Course requisite: 1401-102; Course prerequisite: 1401-101, 1401-103

**BIOL 111C: FUNDAMENTALS OF HUMAN ANATOMY & PHYSIOLOGY I LECTURE (3)**

Focuses on the human body as it relates to function, organization, and interrelationship of body structures as they form an integrated functional organism. 3 lecture hours. Course requisite: 4401-113

**BIOL 113C: FUNDAMENTALS OF HUMAN ANATOMY & PHYSIOLOGY I LABORATORY (3)**

Examines the cellular, tissue, and organ levels of the organization of the human body and how these units coordinate activities and function in the living organism. 3 laboratory hours. Course requisite: 4401-111

**BIOL 112C: FUNDAMENTALS OF HUMAN ANATOMY & PHYSIOLOGY II LECTURE (3)**

Continues the study of the Fundamentals of Human Anatomy and Physiology I. Emphasizes body systems and how these contribute to homeostasis. 3 lecture hours. Course requisite: 4401-114; Course prerequisite: 4401-111

**BIOL 114C: FUNDAMENTALS OF HUMAN ANATOMY & PHYSIOLOGY II LABORATORY (3)**

Examines the structure and function of the body systems with emphasis on balanced coordination of the living organism. 3 laboratory hours. Course requisite: 1401-112; Course prerequisite: 1401-111, 113

**BIOL 245C: CLINICAL MICROBIOLOGY LECTURE (3)**

Emphasizes the principles concerning identifying, classifying, and diagnosing microbial organisms and the various relationships affecting public health. 3 lecture hours. Course requisite: 1401-244; Course prerequisite: 1401-101, 102, 103, 104, or permission of instructor.

**BIOL 244C: CLINICAL MICROBIOLOGY LABORATORY (3)**

Emphasizes isolation of microbes, growth and reactions in media, and techniques to impede microbial growth. 3 laboratory hours. Course requisite: 1401-245 1401-101, 102, 103, 104





## CHEMISTRY

### CHEM 105C: FUNDAMENTALS OF CHEMISTRY LECTURE (3)

Surveys the essential concepts of inorganic chemistry with emphasis on health-related applications. This course is not acceptable for credit toward graduation for students majoring in chemistry. 3 lecture hours. When taken to satisfy the University-wide science requirement, concurrent enrollment in 1507-106 (Fundamentals of Chemistry Laboratory) is required. When taken as a prerequisite for 1507-111 (General Chemistry I Lecture), there is no co-requisite.

### CHEM 106C: FUNDAMENTALS OF CHEMISTRY LABORATORY (3)

Introduces basic laboratory techniques through a collection of experiments designed for students who have little or no laboratory experience. 3 laboratory hours. Course requisite: 1507 105.

## INTEGRATED SCIENCE

### ENSC 107C: INTEGRATED SCIENCE LECTURE (3)

Emphasizes the usefulness of science by presenting specific scientific information concerning the urban environment. Includes interdisciplinary topics, such as plants, soil formation, basic chemistry, soil chemistry, measurements, human functions, nutrition, environmental diseases, and the history of African Americans in the development of science. 3 lecture hours. Course requisite: 1415-109.

### ENSC 109C: INTEGRATED SCIENCE LABORATORY (3)

Offers a general overview of science, including measurements, plants, chemistry, nutrition, soil science, energy, air pollution, water pollution, and environmental diseases. 3 laboratory hours. Course requisite: 1415-107

## FOOD SCIENCE AND NUTRITION

### FDSC 105C: INTRODUCTION TO FOOD SCIENCE LECTURE (3)

Explores food science and technology, the early history of food, and the development of the industry. Examines future opportunities [for what?], with emphasis on general characteristics of raw materials, harvesting, processing, and the methods of food preparation to preserve the color, flavor, and nutrient content of food. 3 lecture hours. Course requisite: 1333-103

### FDSC 103C: INTRODUCTION TO FOOD SCIENCE LABORATORY (3)

Focuses on basic laboratory exercises that highlight the characteristics of raw materials, food development, preparation, and preservation. 3 laboratory hours. Course requisite: 1333-105

### FDSC 106C: INTRODUCTION TO NUTRITION LECTURE (3)

Offers a general overview of nutrients, how these are ingested, digested absorbed, transported, and metabolized. Also examines how nutrition relates scientifically to the well-being of the human body. 3 Lecture hours. Course requisite: 1333-104; Course prerequisite: none.

### FDSC 104C: INTRODUCTION TO NUTRITION LABORATORY (3)

Emphasizes laboratory exercises on analyzing the nutrients of the food consumed in a day by using computer software and skills to conduct basic nutrition assessment. 3 laboratory hours. Course requisite: 1333-106; Course prerequisite: none.

## PHYSICS

### PHYS 101C: INTRODUCTION TO COLLEGE PHYSICS I LECTURE (3)

Introduces laws of motion and the concept of energy, thermal and elastic properties of matter, and theories of waves and sound. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour per week for problem solving. 3

lecture hours. Course requisite: 1539-103; Course prerequisite: 1535 105

### PHYS 103C: INTRODUCTION TO COLLEGE PHYSICS I LABORATORY (3)

Required lab which must be taken concurrently with College Physics I Lecture course. 2 laboratory hours. Note: all laboratory sections must correspond to the lecture sections.

### PHYS 102C: INTRODUCTION TO COLLEGE PHYSICS II LECTURE (3)

Continues Introduction to College Physics I Lecture. Includes the study of electricity and magnetism, electronics, geometrical and physical optics, and a description of atomic and nuclear structure. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour for problem solving. 3 lecture hours. Course requisite: 1539-104; Course prerequisite: 1539-101

### PHYS 104C: INTRODUCTION TO COLLEGE PHYSICS II LABORATORY

Required lab and must be taken concurrently with College Physics II Lecture course. 2 laboratory hours. Note: all laboratory sections must correspond to the lecture sections.

## Mathematics Course Offerings

These courses provide the student guidance in selecting and pursuing career paths in science and preparation for life after graduation.

*It is noted that to date, courses offered in the math component of the Math and Engineering Cluster serve as a support for many programs throughout the University of the District of Columbia Community College. This cluster does not yet confer an associate degree in mathematics.*

### MATH 005C Basic Mathematics (3)

Equips beginning college students with basic mathematics skills. Introduces the decimal numeration system, including an examination of the arithmetic of whole numbers, rational numbers as common fractions and as decimals, percent's, ratios and proportions, arithmetic of integers, properties of order, and geometric formulas. Lec. 3 hrs.

### MATH 015C Introductory Algebra (3)

Equips students with the basic algebraic skills for students who have not demonstrated competency in algebra. Examines properties of whole numbers, integers, rational numbers, and real numbers graphing. Covers the solution of equations and inequalities, exponents, polynomials and factoring. Also examines rational expressions, scientific notation, roots and radicals. Lec. 3 hrs, Prereq: 005C or appropriate scores on the Mathematics Placement Test.

### Math 101C General College Mathematics (3)

Equips students with the mathematical skills, knowledge, and understanding necessary to function in a technological society. Covers problem solving, sets and logic, numeration and mathematical systems, linear equations and inequalities, and graphing. Lec. 3 hrs., Prereq: 015C or appropriate scores on the Mathematics Placement Test. Note: Students whose major requires specific mathematical skills should not enroll in 101C or 102C. Consult your academic department.

### MATH 102C General College Mathematics II (3)

Expands on Math 101C. Explores measurement and geometry, trigonometry of right triangles, and consumer mathematics. Also introduces probability and statistics. Lec. 3 hrs, Prereq: MATH 101C.

### MATH 105C Intermediate Algebra (3)

Instructs in intermediate algebra. Designed for students who are competent in introductory algebra but who require additional preparation prior to enrollment in courses that lead to calculus (e.g., MATH 113C or MATH 116C). Develops basic geometric ideas, the



real number system and algebraic expressions, factoring, exponents, radicals, rational expressions, first degree equations and inequalities, quadratic equations, the Cartesian plane, and systems of equations. Lec. 3 hrs, Prereq: MATH 015C or appropriate score on the Mathematics Placement Test.

**MATH 111C Technical Mathematics I (4)**

Introduces algebraic concepts, definitions, notations, operations and symbols with emphasis on analysis and solution of applied problems. Includes algebraic fractions, exponential notation, linear and quadratic equations, simultaneous equations, inequalities, graphing, and linear programming. Lec. 4 hrs. Prereq: MATH 105C.

**Math 112C Technical Mathematics II (4)**

Introduces concepts, notations, operations, and symbols used in geometry, trigonometry, and calculus with emphasis on analysis and solution of applied problems. Includes exponential and logarithmic functions, geometry, trigonometric functions, solution of right and oblique triangles, radian measure, vectors, continuous functions and limits, derivatives and applications, integrals, and graphing functions. Lec. 4 hrs. Prereq: MATH 111C.

**MATH 113C Pre-calculus with Trigonometry I (3)**

Designed primarily for students preparing to take calculus, this course examines algebraic notation and symbolism, exponents and radicals, algebraic functions, solutions of linear and quadratic equations and inequalities, relations and functions, rational functions and their graphs, conic sections, exponential and logarithmic functions and the appropriate graphs. Lec. 3 hrs., Prereq: 105C. Important note: credit will be given for only one of the following courses: MATH 112C, MATH 114C, or MATH 115C.

**Math 114C Pre-calculus with Trigonometry II (3)**

Examines trigonometric functions, identities, and the appropriate applications. Also explores the solution of trigonometric equations, systems of equations and inequalities, operations with complex numbers, polynomials, and mathematical induction. Lec. 3 hrs. Prereq: MATH 113C.

**MATH 116C Finite Mathematics (3)**

Investigates systems of linear equations, matrices and linear programming; elementary functions, especially logarithmic and exponential functions; and applications to business situations. Lec. 3 hrs, Prereq: MATH 105C or appropriate scores on the Mathematics Placement Test.

**MATH 117C Business Mathematics I (3)**

Introduces applications of mathematical operations to problem involving sales, averages, time cards, stock market reports, and invoices; use of ratio and proportion with consumer price index, shares and percentages. Provides instruction primarily for students in two-year business programs. Lec. 3 hrs., Prereq: MATH 015C or appropriate scores on the Mathematics Placement Test.

**Math 118C Business Mathematics II (3)**

Investigates computation of simple and compound interest; interpretation of charts and graphs; construction of depreciation schedules; and computation of effective interest rate and true annual percentage rate. Lec. 3 hrs. Prereq: MATH 117C.

**MATH 151C Calculus I (3)**

Examines concepts and skills for limits and continuity, derivatives and their applications, integrals, the Fundamental Theorem of Calculus, and elementary transcendental functions. Includes computer laboratory as an integral part of the course. Lec. 3 hrs, Co-req: MATH 155C; Prereq: MATH 114C or permission of the Department of Mathematics.

**Math 152C Calculus I (3)**

Continues MATH 151C. Explores further applications of the integral and techniques of integration. Also,, examines topics in the calculus of one variable, analytic geometry, and sequences and infinite series. Includes computer laboratory as an integral part of the course. Lec. 3 hrs., Co-req.: MATH 156C. Prereq.: MATH 151C or permission of the cluster Coordinator.

**MATH 115C Calculus I Lab (1)**

Explores theoretical concepts and applications of Calculus I in and experimental environment. Designed to employ symbolic, numerical, and graphics capabilities of a computer algebra system. Lab 2 hrs, Co-req: MATH 151C.

**MATH 156C Calculus II Lab (1)**

Explores theoretical concepts and applications of Calculus II (152C) in an experimental environment designed to employ symbolic, numerical, and graphic capabilities of a computer algebra system. Lab 1 hr., Co-req. MATH 152C.

**Math 185C Introductory Statistics (3)**

The first of a two-course sequence which Introduces concepts and techniques of probability and statistics. Includes measures of central tendency and dispersion, probability and probability distributions, and correlation and regression. Also introduces statistical inference and computer applications using Minitab or equivalent computer based system. Lec. Pre-req. MATH 105C.

**MATH 215C Calculus for Business, Economics, the Social and Life Sciences (4)**

Explores concepts and skills on limits and continuity. Covers , differential and integral calculus with applications from business, economics, and the social and biological sciences. Lec. 4 hrs., Prereq MATH 113C, MATH 116C or equivalent.



## College of Agriculture Environmental Science and Urban Sustainability

### Course Descriptions

See below for full descriptions of each academic course offered by CAUSES. Course numbers and titles are followed by the number of credits, indicated in parenthesis. Prerequisite and co-requisite courses are named in the description, if applicable.

### Architecture and Community Planning (ARCP/ARAC)

#### ARCP-101: Basic Design and Communication (3)

Are you interested in learning how designers communicate their ideas through sketches and formal drawings? Do you wonder about how drawings relay the message of what you are visualizing in your mind? Do you wonder how famous architects related their theories about the built environment? This course will introduce you to all of this and more. You will learn sketching techniques; formal drawing and drafting techniques; and how to communicate your ideas through architectural working drawings. Lecture 2 hours, laboratory 3 hours.

#### ARCP-102: Basic Design and Communication II (3)

Prerequisite: ARCP-101. Were you intrigued by the ideas and concepts learned in ARCP-101? Then you are ready for this course. You will continue to develop skill in graphic communication and drafting. You will get a further understanding of the role of detailing in representing solutions to construction problems related to light construction. A scale model will be constructed as part of this course. Lecture 2 hours, laboratory 3 hours.

#### ARCP-105: Introduction to Computer Technology (3)

Are you wondering how the computer is used in design and the exploration of ideas? What does CADD mean? If you are curious about these questions and have many more about AutoCAD and SketchUp in this class you will learn how to use these and other types of drawing and rendering tools that help you visualize and present your ideas. In the process you will learn how building components come together into a building envelope. Lecture 2 hours, laboratory 3 hours.

#### ARCP-106: Introduction to Computer Technology II (3)

Prerequisite: ARCP-105. This course is a continuation of ARCP 105 continuing the exploration by learning to use Revit as a tool for building information modeling (BIM). The student will learn to develop 3D model representations of how building components interface with each other as weather proofing and environmental conditions concepts are used to manage the building envelope. Lecture 2 hours, laboratory 3 hours.

#### ARCP-114: Materials & Methods of Construction (3)

Do you wonder how so many different materials come together to form a building? Are you curious about how it is that a tree becomes the wood used for building a house? Would you like to understand how various materials are stacked, glued, screwed and nailed together to make the interior of a building dry and warm when the outdoors is wet and cold? If you are wondering about any of these things this class is designed to help you solve the mystery. You will learn how wood, masonry, cement and more come together in a building. You will also learn many of the words, phrases, and names used to describe the building and building process. Lecture 2 Hours; Lab 3 Hours.

#### ARCP-116: Materials & Methods of Construction II (3)

Prerequisite: ARCP-114. Did you learn about the materials and the varied uses of them in a building? Are you intrigued by how cement turns to concrete? Are you curious about the process by which bricks or concrete blocks are made? Are you curious about how green architecture and sustainable construction affects the environment and the building's life span? These and many other concepts will be explored in this course. Field trips to various sites will be undertaken to get a first hand understanding of how materials are used in construction. At the end of this class you will be conversant in the language used in the building industry to describe process, methods and material use. Lecture 2 Hours; Lab 3 Hours.

#### ARCP-201: Architectural Studio I (3)

This is a continuation of ARCP-102 Basic Design and Communication II. The student will learn the graphic skills needed to organize and develop a set of 'working' drawings and the communication skills to present it. Lecture 2 hours, laboratory 3 hours.

#### ARCP-202: Architectural Studio II (4)

Prerequisite: ARCP-201. By the end of the semester the student will learn how to develop 'working' drawings. As a part of this development the student will learn how the zoning and building codes inform the production of a building. The end product is a set of construction document drawings that accounts for code, structure and construction rules and good practice. Lecture 2 hours, laboratory 3 hours.

#### ARCP-206: CAD Documentation, Specifications, and Estimating (3)

Prerequisite: ARCP-106. This course develops the student's skill in construction document coordination; detailing; discipline's coordination; specification writing and cost estimating. Students are expected to have detailed knowledge of AutoCAD and Revit and how they form the basis for preparing construction documents and building information management (BIM) systems.

#### ARCP-231: Statics and Structural Design (3)

This course studies the concepts of stresses and strength of materials; moment, shear, equilibrium, inertia, static loading versus dynamic loading, and torque. This course allows the student to develop the necessary skills to understand the primary elements of load calculation, load transfer, and load tables.

#### ARCP-241: Advanced Computer Simulation (3)

This course will explore the CADD program as a presentation tool. The integration of the 3D software output with software for enhancing the visual presentation objects will be learned. The student will be expected to understand and develop skills in the following areas: Solid Modeling, Animation, and Orthographic drawing presentation.

#### ARCP-244: Environmental Systems I (3)

In this course you will learn how plumbing systems are designed to manage waste disposal from the building; how power is supplied and controlled in a building envelope; and how illumination elements are designed to minimize environmental effects.

#### ARCP-246: Environmental Systems II (3)

Prerequisite: ARCP-244. This course will focus on Heating, Air Conditioning, Ventilation and Conservation of Energy. The student will learn methods of load calculations done manually, using tables to calculate heat transfer coefficients for any type of construction, determine temperature differences required by codes or by good practice, compute the size of equipment, piping and ducts which will be appropriate to the building type and use and available fuels. Simple residences or small commercial buildings will be analyzed for HVAC systems and plans will be prepared to guide the contractor for installation. Specifications for the work will be studied and written. Costs of fuels will be compared to optimize selection. Energy recovery and conservation will be practiced in the system designs.

#### ARCP-256: Built Environment (3)

This course provides a holistic introductory treatment of architecture and the built environment for architecture and non-architecture majors. The emphasis is on the examination of world-wide cultural belief systems and other factors that have had a major impact on the man-built world. The organized design professions are reviewed and their value systems examined. The course also exposes the student to the issues of sustainability and climate change, and the role those factors are playing.

#### ARCP-301: Architectural Studio III (5)

Prerequisite: ARCP-202. This course builds on the first two years of technical design studios. Are you interested in a more in-depth analysis process for arriving at a solution for a building design? How does the designer decide on which is the best plan layout and three dimensional shape of a building? This course will offer challenging design problems crafted to expose the student to the design analysis process used to study design situation in the urban context. The application of zoning and building codes to the building outcome is expected. You are expected to bring the skills developed in the preceding studios as you conceptualize solutions to architectural problems.



**ARCP-302: Architectural Studio IV (5)**

Prerequisite: ARCP-301. The analysis process will be applied in the development of a design concept. The students are expected to learn how to integrate the various disciplines that affect the shape, form and structure of the building. Life safety issues and the architectural responses will be learned and applied to given design problems. Students are expected to understand how the structural systems are applied in the context of the given building type.

**ARCP-321: History & Theory of Architecture (3)**

Have you ever wondered why the National Cathedral or the Basilica at Catholic University looks the way it does? Have you wondered who paid to have the pyramids built? Why did it take so many people to build the pyramids? Why was it important to have a pharaoh? These and many other questions about the influences of people their actions and choices on the built environment will be discussed in this course. The development of shelter, architectural space and sacred places from prehistoric times to the Gothic Cathedrals will be explored. The influences of economics, politics, culture, technology and philosophy shaping the built environment throughout thousands of years of human civilization will be explored.

**ARCP-322: History & Theory of Architecture II (3)**

Prerequisite: ARCP-321. This course will study the built environment; the design of buildings and spaces from the Gothic Period through modern times. The development of the major schools of architectural thought will be explored. The shaping of the built environment by technology will be explored. The student will learn how the major design philosophies and schools of thought influenced our modern day treatment of the built environment.

**ARCP-331: Theory of Structures (3)**

Prerequisite: ARCP-231. Analysis of statically determinate beams and trusses, methods of determining deflection of structures, influence lines and application for moving loads and indeterminate structures including continuous beams and frames are pursued. The course presents the classical methods of structural analysis needed to analyze statically determinate and indeterminate structures. It aims at providing the necessary analysis foundation for the design courses that typically follow this course in the traditional architectural engineering curriculum.

**ARCP-332: Design of Steel Structures (3)**

Prerequisite: ARCP-331. This course reviews the concepts of stresses and strength of materials: moment, shear, equilibrium, inertia, static loading versus dynamic loading, and torque. This course allows the student to develop the necessary skills to understand the primary elements of load calculation, load transfer, and load tables as it relates to steel construction and specifically steel frame construction. The AISC codes are employed in computations.

**ARCP-401: Architectural Studio V (5)**

Prerequisite: ARCP-302. This studio is a continuation of Laboratory IV with the emphasis shifting to the cost and time management control aspects of building design and production. The student will undertake two architectural designs of mid-size building types on primarily urban sites located in the Washington, D.C. metropolitan area. The architectural design problems will be set to assure that the student reaches a basic level of competence in addressing the problems associated with architecture within an urban context. The two projects will vary in time and scope. \*The problem(s) set in this studio challenge the student to search for, coordinate, and consolidate the basic systems (structural, environmental, mechanical, etc) with special emphasis on development of their own design process and philosophy.

**ARCP-402: Architectural Studio VI (5)**

Prerequisite: ARCP-401. This course is the culmination of architectural design studio course sequence in the Bachelor of Science in Architecture Degree program. The student is expected to demonstrate a firm grasp of the skills required for undertaking comprehensive, sustainable and inclusive building design. The communication and illustration of the design solution is of paramount importance in demonstrating the acquisition of design skills. The semester is devoted to the undertaking of an urban-scale design project with minimum faculty supervision.

**ARCP-411: Professional Ethics & Practice (3)**

This course undertakes a general review of: the profession of Architecture; historic developments; relation to other professions

and disciplines; the changing role of the Architect; architectural and related professional societies; state and national registration boards; education accreditation; federal, state and municipal agencies and legal and ethical questions relating to the practice of architecture and emerging forms of practice.

**ARCP-412: Preservation Rehabilitation Technology I (3)**

The course utilizes the Secretary of the Interior's Certification application, preservation guidelines and technical specifications as the base of case study analysis of the planning and design of historic structures in Washington, D. C. Nonhistoric rehabilitation techniques in housing, cost control and recycle/retrofit techniques for various structures are also analyzed

**ARCP-414: Professional Ethics & Practice II (3)**

Prerequisite: ARCP-411. This course focuses, via the case study method, on the business and financial tools of professional practice including real estate development and other emerging entrepreneur opportunities. The student is expected to understand the ethics associated with the practice of Architecture as a business and profession that is responsible for health safety and welfare of the public.

**ARCP-432: Design of Concrete Structures (3)**

Prerequisite: ARCP-331. The Design of Concrete Structures covers the analysis and design of reinforced concrete rectangular and T-beams, one-way slabs, short and slender (long) columns, spread footings, and wall footings. The concepts of stresses and strength of materials: moments, shear, equilibrium, inertia, static loading versus dynamic loading and torque are reviewed. This course allows the student to develop the necessary skills to understand the primary elements of load calculation, load transfer, and load tables as it relates to concrete and concrete frames. The ACI codes are employed in computations.

**ARCP-501: Professional Studio Lab VII (5)**

This course is the first part of an integrated two semester studio sequence in the Master of Architecture degree program. The course seeks to prepare the student for the full-fledged status of intern architect preparing for licensure. The student undertakes the comprehensive design of a substantive urban mixed use building project in this semester with special attention to sustainability, energy efficiency and development finance economics. Basic competency in Revit and SketchUp is strongly recommended.

**ARCP-502: Thesis Studio Lab VIII (5)**

This course is the second part of an integrated two semester studio sequence in the Master of Architecture degree program. Basic competency in Revit and SketchUp is required. The course continues the path of preparation for the full-fledged status of intern architect preparing for licensure with special attention to sustainability, energy efficiency and development finance economics. The student undertakes the comprehensive design of a substantive urban mixed use building project in this semester. The semester is devoted to the completion of a design statement envisioned in the pre-design document prepared in ARCP 507 Graduate Seminar during the fall semester preceding.

**ARCP-503: Urban and Community Design I (3)**

Do you ever wonder why cities look like they do? Or perhaps who is responsible for making the decisions that result in the shape and character of a city? Or perhaps you would like to know how you as an individual can influence your surroundings? This class is intended to promote understanding of public space and public life through readings and discussions in urban design and planning through observation and analysis of urban conditions in Washington, D.C. Students will learn the practical tools of urban design as well as graphic communication techniques. Student will expand and refine their skills using spatial analysis via drawing and diagramming urban conditions.

**ARCP-504: Urban and Community Design II (3)**

Prerequisite: ARCP-503. Do you continue to wonder why cities look like they do? Or perhaps who is responsible for making the decisions that result in the shape and character of a city? Perhaps you would like to understand how you as an individual can influence your surroundings? This class is intended to delve deeper into understanding how public space and public life come about through readings and discussions in urban design and planning through observation and analysis of urban conditions in Washington, D.C. Field trips to local sites will be included in the in depth study of the



urban landscape. Students are expected to have a grasp of the practical tools of urban design illustration as well as graphic communication techniques. Student will be expected to be able to communicate their ideas using spatial analysis via drawing and diagramming urban conditions.

**ARCP-505: Sustainable Design I (3)**

Buildings account for approximately 50-60% of the energy usage in the United States. As building designers, architects are particularly accountable for increasing the energy efficiency of all structures to achieve a more sustainable balance in our built environment. But how do we accomplish that? What can be done to make buildings more energy efficient? This course will introduce students to the USGBC LEED rating system, as well as other programs, which facilitates the design, review, and maintenance of new and existing buildings through the incorporation of "green" technologies. Students will examine the benefits of designing sustainable buildings and understand the process involved in achieving LEED certification.

**ARCP-506: Sustainable Design II (3)**

Prerequisite: ARCP-505. How does the design process change when designing energy efficient buildings? Does applying LEED credits to a building change the shape of the final design? Using the LEED program, students will design an energy efficient building. Sustainable design technologies will be reviewed and applied to an actual building via a design studio program. Lectures will examine other aspects of sustainability that do not include building design and discuss how students can apply sustainable practices to their own lives.

**ARCP-507: Graduate Seminar (3)**

Successful completion of this course is the prerequisite for enrollment in the spring semester ARCP 502 Thesis Studio. Graduate school level scholarly writing proficiency and research skills are required. Extensive critical reading and written reviews occur. The student selects a master's thesis topic in consultation with the course instructor; develops the research protocol; documentation; pre-design program and problem statement. The approved document is the basis for ARCP 502 Thesis Studio Thesis Design Project.

**ARCP-601: Preservation Rehabilitation Technology (3)**

This is a unified two semester treatment that in the first semester uses the Secretary of the Interior's certification application guidelines and technical specifications as the basis of case study analysis of the planning and design of historic structures in Washington, DC as a point of departure. The second semester is available in the Master's program. The second semester emphasis is on the adaptable reuse of historic and non-historic structures.

*The following courses are designed for students who have a non-architecture degree and wish to pursue architecture at the graduate level. The courses are designed to provide such a student with a structured way to achieve success in a profession that has and intense technical components; a unique graphic language for communicating ideas; and an analytical method for making decisions and solving problems.*

**ARAC-501: Design Studio I (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-102 and ARCP-102. This course covers principles and theory of drawing types and techniques of three dimensional modeling. The SketchUp software program will be used in developing three dimensional visualization skills. Because a building will be produced the student will also learn about building components and how they come together to construct a building. Since design involves the bringing together of a group of activities into one envelope, the student will learn the fundamentals of design analysis. How to present your work in the architectural graphic language will also be studied. Mastering the vocabulary related to light frame construction is expected. Scale models will be constructed. Lecture 2 hours, laboratory 3 hours.

**ARAC-502: Design Studio II (3)**

Prerequisite: ARAC-501. This course is for graduate students who need to catch up on fundamental skills covered in ARCP-201 and ARCP-202. By the end of the semester the student will learn how to develop 'working' drawings. As a part of this development the student will learn how the zoning and building codes inform the production of a building. The end product is a set of construction

document drawings that accounts for code, structure and construction rules and good practice. Lecture 2 hours, laboratory 3 hours.

**ARAC-503: Design Studio III (3)**

This is a continuation of ARAC-502. This course is for graduate students who need to catch up on fundamental skills covered in ARCP-301 and ARCP-302. This course will offer challenging design problems crafted to expose the student to the design analysis process used to study design situation in the urban context. The application of zoning and building codes to the building outcome is expected. You are expected to bring the skills developed in the preceding studios as you conceptualize solutions to architectural problems. The students are expected to learn how to integrate the various disciplines that affect the shape, form and structure of the building. Life safety issues and the architectural responses will be learned and applied to given design problems. Students are expected to understand how the structural systems are applied in the context of the given building type. Lecture 2 hours, laboratory 3 hours.

**ARAC-504: Design Studio IV (3)**

This is a continuation of ARAC-503. This course is for graduate students who need to catch up on fundamental skills covered in ARCP-401 and ARCP-402. The student is expected to demonstrate firm grasp of the skills required undertaking comprehensive, sustainable and inclusive building design. The communication and illustration of the design solution is of paramount importance in demonstrating the acquisition of design skills. The semester is devoted to the undertaking of an urban-scale design project with minimum faculty supervision. Lecture and Consultation 2 hours, laboratory 3 hours.

**ARAC-511: Building Information Modeling I (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-105. Are you wondering how the computer is used in design and the exploration of idea? What does CADD mean? If you are curious about these questions and have many more about AutoCAD and SketchUp in this class you will learn how to use these and other types of drawing and rendering tools that help you visualize and present your ideas. In the process you will learn how building components come together into a building envelope. Lecture 2 hours, laboratory 3 hours.

**ARAC-512: Building Information Modeling II (3)**

Prerequisite: ARAC-511. This course is for graduate students who need to catch up on fundamental skills covered in ARCP-105 and ARCP-106. This course continues the exploration of CADD by learning to use Revit as a tool for building information modeling (BIM). The student will learn to develop 3D model representations of how building components interface with each other as weather proofing and environmental conditions concept are used to manage the building envelope. Lecture 2 hours, laboratory 3 hours.

**ARAC-513: Statics & Structural Design (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-231. The course provides the student with skills necessary to understand the primary elements of structural systems load calculations, load transfer, and load tables. The student shall become familiar with light frame, heavy timber, light steel, and concrete systems and calculating wood, steel and concrete beams and columns and concrete slabs.

**ARAC-514: Theory of Structures (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-331. Analysis of statically determinate beams and trusses, methods of determining deflection of structures, influence lines and application for moving loads and indeterminate structures including continuous beams and frames are pursued. The course presents the classical methods of structural analysis needed to analyze statically determinate and indeterminate structures. It aims at providing the necessary analysis foundation for the design courses that typically follow this course in the traditional architectural engineering curriculum.

**ARAC-515: Building Information Modeling III (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP 241. This course will explore the CADD program as a presentation tool. The integration of the 3D software output with software for enhancing the visual presentation objects will be learned. The student will be expected to understand



and develop skills in the following areas: Solid Modeling, Animation, and Orthographic drawing presentation.

**ARAC-516: Environmental Studies (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-246. This course focuses on Heating, Air Conditioning, Ventilation and Conservation of Energy. The student will learn methods of load calculations done manually, using tables to calculate heat transfer coefficients for any type of construction, determine temperature differences required by codes or by good practice, compute the size of equipment, piping and ducts which will be appropriate to the building type and use and available fuels. Simple residences or small commercial buildings will be analyzed for HVAC systems and plans will be prepared to guide the contractor for installation. Specifications for the work will be studied and written. Costs of fuels will be compared to optimize selection. Energy recovery and conservation will be practiced in the system designs.

**ARAC-518: Contract Administration (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-414. This course focuses, via the case study method, on the business and financial tools of professional practice including real estate development and other emerging entrepreneur opportunities. The student is expected to understand the ethics associated with the practice of Architecture as a business and profession who is responsible for health safety and welfare of the public.

**ARAC-519: Design of Concrete Structures (3)**

Prerequisite: ARAC-513. This course is for graduate students who need to catch up on fundamental skills covered in ARCP-432. The Design of Concrete Structures covers the analysis and design of reinforced concrete rectangular and T-beams, one-way slabs, short and slender (long) columns, spread footings, and wall footings. The concepts of stresses and strength of materials: moments, shear, equilibrium, inertia, static loading versus dynamic loading and torque are reviewed. This course allows the student to develop the necessary skills to understand the primary elements of load calculation, load transfer, and load tables as it relates to concrete and concrete frames. The ACI codes are employed in computations.

**ARAC-520: Design of Steel Structures (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-332. Prerequisite: ARAC-514. This course reviews the concepts of stresses and strength of materials: moment, shear, equilibrium, inertia, static loading versus dynamic loading, and torque. This course allows the student to develop the necessary skills to understand the primary elements of load calculation, load transfer, and load tables as it relates to steel construction and specifically steel frame construction. The AISC codes are employed in computations.

**ARAC-522: History & Theory of Architecture (3)**

This course is for graduate students who need to catch up on fundamental skills covered in ARCP-322. The student is expected to independently review the material covered in ARCP-321. This course will study the built environment; the design of buildings and spaces from the Gothic Period through modern times. The development of the major schools of architectural thought will be explored. The shaping of the built environment by technology will be explored. The student will learn how the major design philosophies and schools of thought influenced our modern day treatment of the built environment.

**Environmental Sciences (ENSC/WTRM)**

**ENSC-105: Environment and Sustainability (3)**

This course focuses on the development of essential skills necessary to prepare high school seniors or 1st year college students for college success in science and engineering curriculum. The purpose of the course is to develop critical thinking and problem solving skills for science and engineering majors through hands-on experiential activities. The curriculum includes environmental sciences, sustainability, water quality, climate change, data analysis, computer application and engineering design modules. Students will gradually build core skills and knowledge and demonstrate competences in environmental processes and applying basic scientific principles to solve problems. At the conclusion of the course, students will be able to demonstrate foundational understanding of physical, chemical and biological processes affecting water quality, analyze environmental data and articulate how engineering solutions play an important role in environmental protection and sustainability.

**ENSC-145: Introduction to Environmental Science Lecture (3)**

Co-requisite: ENSC-146. A course in which students will investigate the atmosphere, hydrosphere, lithosphere, biosphere, and the natural cycles which influence man. Students will be engaged on the impact of humans on these spheres through water and air pollution, solid waste disposal and noise. The course examines urban sustainability, environmental, social and economic development and policies, politics and practices as well as the role of cities in global environmental change.

**ENSC-146: Introduction to Environmental Science Lab (1)**

Co-requisite: ENSC-145. A course which provides students with a hands-on experience on what was covered in the lecture of ENSC-145. Topics include measurement, density, moisture and dry matter content of leafy vegetables, seed germination, respiration, cell structure, acids and bases, soils, and the student's own environment.

**ENSC-221: Wastewater Technology Lecture (3)**

Co-requisite: ENSC-223. This course details the fundamental principles of wastewater collection, treatment, and disposal. It emphasizes advanced treatment methods for producing effluents and solid matter of the quality required for disposal or reuse in agricultural and urban settings. The course also provides discussions of problems encountered in wastewater distribution as well as environmental and human health issues related to disposal and reuse of treatment products. The laboratory session will focus on the principles of wastewater collection and wastewater aeration as well as the calculations required for water plant operations.

**ENSC-223: Wastewater Technology Lab (1)**

Co-requisite: ENSC-221. This course details the fundamental principles of wastewater collection, treatment, and disposal. It emphasizes advanced treatment methods for producing effluents and solid matter of the quality required for disposal or reuse in agricultural and urban settings. The course also provides discussions of problems encountered in wastewater distribution as well as environmental and human health issues related to disposal and reuse of treatment products. The laboratory session will focus on the principles of wastewater collection and wastewater aeration as well as the calculations required for water plant operations. Students will have opportunities to go on field trips to local water treatment facilities.

**ENSC-225: Environmental Studies and Sustainability (3)**

The introduction to environmental science and sustainability course is an interdisciplinary course designed for non-majors. It introduces students to how the wellbeing of humans is integrally linked to the wellbeing of the other species with which we share the planet. The course focuses upon the fundamental principles of environment and sustainability concepts. The course content includes environmental impact, water quality, energy and water use efficiency, transportation, built environment, ecosystem services, biodiversity, climate change and green business. It will enable students to make an informed decision on their day-to-day activities to protect the environment.

**ENSC-250: General Ecology Lecture (3)**

Co-requisite: ENSC-251. A study and survey of those concepts which define and explain the interrelationships between organisms and the ecosystem. Students will be able to examine the campus



ecology. With a focus on the human impact on environmental processes, the class will consider the living (biotic), non-living (abiotic), and the interdisciplinary nature of ecological problems and their resolutions. While considering sustainability and stewardship, the course topic will include water resources, energy, forests, and biodiversity. The course will also discuss the relationships between human society and natural ecosystems as they relate to the sustainability of both. Relevant scientific, socio-economic, and ethical issues will be addressed in connection to current events such as climate change, energy policy, and land use change/urban planning. The course examines the effect of human populations and socio-cultural variables on contemporary environmental changes at global and local scales with an emphasis on sustainable use, management, and conservation of natural resources, biodiversity, and ecosystem services.

**ENSC-251: General Ecology Lab (1)**

Co-requisite: ENSC-250. The course is an interactive learning course in which the students conduct and participate in processes designed to enhance skill and knowledge development. Students will examine and describe their own ecology as well as the Van Ness campus ecology.

**ENSC-324: General Soils Lecture/Lab (4)**

Prerequisite: ENSC-145. This course will instill awareness of soils as a basic natural resource, the use or abuse of which has a considerable influence on human society and life in general. Students are made aware of the concept that we grow with soil. It is an introductory course that presents basic concepts of all aspects of soil science including: soil genesis and classification; physical, chemical, and biological properties; soil – water relationship; soil fertility and productivity, soil conservation and soil management. It also discusses soil's role in environmental science and non-agricultural land uses.

**ENSC-352: Sustainable Agriculture Lecture (3)**

Prerequisite: ENSC-145; co-requisite: ENSC-353. This course is designed to teach students the principles of sustainable agriculture and the use of these principles to replace today's agricultural practices that are dominated by high inputs of inorganic synthetic chemical fertilizers and toxins in attempts to control disease and insects, which at the same time pollute our air and water resources. This course will instruct students how to implement the sustainable agricultural approach of environmental, economical, societal and intergenerational sustainability by adopting an integrated system of agricultural production that lessens the dependence upon synthetic chemicals such as inorganic fertilizers and toxic pesticides.

**ENSC-353: Sustainable Agriculture Lab (1)**

Prerequisite: ENSC-146; co-requisite: ENSC-352. This course is designed to give students hands-on knowledge on how soil-plant relationships are affected by environmental factors such as air, water and light. It is also designed to show students how agricultural practices such as soil and soil components, adding soil amendments for maintaining soil fertility and comparing the sustainable agricultural principles of growing plants with organic composted materials in lieu of inorganic commercial nitrogen, phosphorus and potassium.

**ENSC-354: Environmental Toxicology Lecture (3)**

Prerequisite: CHEM-111; co-requisite: ENSC-355. Students learn how toxic materials can impact their health and the health of plants and animals around them. We can be exposed to toxic materials through many routes and they can affect us in a variety of ways such as acute and chronic diseases, reproductive failure, or low survival in animal and plant populations. There are a wide range of materials that can be toxic to humans, from industrial chemicals, lead in water, radioactivity, pesticides, and pollutants in our air, food or water. By contrast fish can find changes or levels of salinity changes to be toxic. We will examine these impacts and the various ways that our society seeks to reduce these risks, including work with the District (of Columbia) Department of Health.

**ENSC-355: Environmental Toxicology Lab (1)**

Pre-requisite: CHEM-113; co-requisite: ENSC-354. The Environmental Toxicology Lab engages students on the modes of action of toxic materials and ways to test for the toxicity of materials. Students are exposed to a range of techniques from computer models, testing protocols in environmental chemistry labs, as well as procedures used in the District (of Columbia)

Department of the Environment and the District Department of Health; there will be field trips to these facilities. Topics include water quality, lead in the human diet, and pesticides in our homes and gardens.

**ENSC-357: Urban Sustainability Lecture (3)**

Rapid urbanization has resulted in environmental problems such as air and water pollution. In addition it can also create a problem of economic and social justice. This course will explore the socio-economic and environmental dimensions of sustainability in cities. The course will analyze the contemporary urban environmental crisis in the context of global population growth, global climate change, and critically evaluate government policies, and economic development. The course will examine programs that address the challenges of sustainability in both developed and developing countries. Relevant issues such as environmental justice will be discussed.

**ENSC-359: Urban Water Quality Management (3)**

This course is a team-oriented, experiential and problem based interdisciplinary course open to majors and non-majors alike. This course is designed to enhance student's competence in theoretical and practical application of urban water quality sciences and related technologies to address the urban water quality problems and management. The course content includes environmental regulation, water quality, urban runoff, data mining, information technology, dynamic interactive online course delivery, and sustainable development of interest to students from all majors. This course will be team-taught by faculty mainly from school of engineering and applied sciences and CAUSES.

**ENSC-448: Environmental Field Problems (4)**

An internship course with the District (of Columbia) Department of the Environment. Students are engaged in the daily activities of the District of Columbia Department of the Environment. The course is open to Bachelor of Science in Environmental Science Degree Program students with junior or senior standing.

**ENSC-450: Environmental Health Lecture (3)**

Prerequisite: CHEM-111; co-requisite: ENSC-451. A course which examines the effect of gaseous and particulate pollutants on human health. The epidemiology, pathogenesis, diagnosis, and etiologic agents of diseases are discussed. Students will analyze environmental toxic chemicals and discuss their effect on human health. Other topics include hazardous wastes, pests, pest control, food additives, and air-, water-, and soil-borne organisms. The course will introduce students to a full continuum of analytical perspectives on global climate change and its documented and projected implications for human health. The course will also examine the relationships between the health of populations and health determinants in the context of environmental sustainability. Sustainability necessitates balance between natural capital and uses of natural capital for human and non-human ends.

**ENSC-451: Environmental Health Lab (1)**

Prerequisite: CHEM-113; co-requisite: ENSC-450. The Environmental Health laboratory examines various pollutants and their association with human health risk. Students will collect and analyze toxins in the environment and examine their effect on human health. Lead, indoor air quality problems, stratospheric ozone depletion, and chemical contamination are examined by using computer modules. Etiologic agents of diseases are examined in the laboratory.

**ENSC-452: Air Pollution Lecture (3)**

Prerequisite: CHEM-111; co-requisite: ENSC-453. The students in this course will be prepared to examine complex interactions between society and industry. An example of that is electricity where humans cannot sustain their present state of civilization without it. Particulate and gaseous emissions are the by-product of such endeavor. This course involves geopolitical aspects of technology and economy and will provide information about the human impact on the environment. In this course students will be taking samples and analyzing them. The course generates awareness about available natural resources and propels students toward future studies in environmental science and engineering.

**ENSC-453: Air Pollution Lab (1)**

Prerequisite: CHEM-113; co-requisite: ENSC-452. The course provides information of man's impact on the environment. The course generates awareness of the subject of sustainability and propels the student toward future studies in environmental science



and engineering. The student shall understand the specific nature of pollution sources and their effects on atmospheric pollution. The student shall analyze particulates, gaseous pollutants, plume dispersion and the global effect of air pollution. There will be an introduction to the thermodynamics as it relates to air pollution. At the end of this course the student must demonstrate dispersion modeling of Gaussian distribution up to 4 dimensions.

**ENSC-456: Research Methodology (1)**

This is an introductory course to study the application of research methods appropriate to professional studies. The course will provide a general introduction to research methods, as well as providing practical exposure to problem statements, literature reviews, writing the research proposal, and organization of the research report. Quantitative and qualitative research methodologies will be briefly covered in preparation for the later courses in these areas.

**ENSC-457: Aquatic Ecology Lecture (3)**

Prerequisite ENSC-145; Co-requisite: ENSC-458. This course will acquaint the student with the fundamental principles of marine and fresh water ecology. Emphasis will be placed upon the biological, physical and chemical processes affecting marine and fresh water life in the inter-tidal waters, rivers, streams, the open ocean, and the benthic habitats. The taxonomy and characteristics of aquatic creatures will be investigated. The course will also discuss features of aquatic habitats the dynamic interactions between organisms and their environment.

**ENSC-458: Aquatic Ecology Lab (1)**

Pre-requisite: ENSC-146; co-requisite: ENSC-457. The lab portion is designed to complement and expand on topics discussed in lectures while providing students with hands-on experience in sampling, analyzing, and interpreting features of fresh water and marine ecosystems.

**ENSC-459: Hydrodynamics and Water Quality Lecture (3)**

This course explores a quantitative approach to describing physical, chemical, and biological processes in the environment. It focuses on development of the fundamental equations of fluid mechanics and their simplifications for several areas of surface water hydrodynamics and the application of these principles to the solution of environmental or water quality problems. Topics include water quality regulations, mathematical modeling of hydraulics and water quality in stream, rivers, and wastewater treatment plants, fate and transport of toxic organic contaminants. This course links engineering aspects with theoretical analysis of environmental science and water quality.

**ENSC-460: Climate Change and Carbon Reduction Lecture (3)**

An introductory course presents and explores the impact of anthropogenic activities on the global climate change and mitigation measures. Course topics include the climate system, greenhouse effect, assessing carbon foot print, carbon reduction, and science and politics of global warming and climate change impacts on the environment. The course will focus on the cause and effect of global climate change, and ways to reduce the greenhouse gas emission.

**ENSC-461: Environmental Policy Lecture (3)**

Students work with environmental science and environmental regulations in order to understand how these are used to translate environmental policy into action. It builds on knowledge of science, as well as major development and pollution issues to analyze what laws and regulations have worked well and where changes are needed in both behavior and the rules of society. Comparisons are made at the local District of Columbia level, as well as for States, National and International levels. Thus, the course provides a basis for understanding the relationships between politics and science. It allows the student participant an opportunity to become versed in the policy view as a whole while becoming skilled in an environmental area of choice.

**ENSC-470: Senior Project (3)**

Students undertake a project in which they explain five major environmental problems, their cause, and their environmental impact.

**ENSC-471: Internship (3)**

Students undertake an internship with local or national environmental agencies in which they are engaged in the daily activities of these agencies.

**WTRM-500: Water Quality Assessment, Monitoring & Treatment (3)**

This course is designed to introduce students to the principle and practical aspect of water and wastewater quality assessment, monitoring and treatment. Students will be able to analyze the definite (water quantity) and indefinite (water quality) characteristics of water, including water quality standards, water quality monitoring, water quality assessment tools, regulations and the basics of water and wastewater treatment processes and their limitations in the context of integrated river water resources management requirements. Students will be engaged in rigorous field studies, site tour of water and wastewater treatment plants, laboratory analysis using state-of-the-art lab technologies ranging from DR2800 Spectrophotometer through Gas Chromatography Mass Spectrophotometer and Inductive Couple Plasma Mass Spectrophotometer.

**WTRM-501: Surface & Ground Water Hydrology (3)**

This course concentrates on the analysis and quantification of surface and groundwater hydrological processes, such as rainfall, evapotranspiration, runoff, groundwater recharge, groundwater storage, groundwater movement and management of the water environment. The course provides a conceptual and quantitative understanding of hydrology and the basic principles of hydraulics as a basis for later applied studies of water quality assessment, water resources engineering and management. Hydrology laboratory exercises, field study and term project are included.

**WTRM-503: Environmental Impact Assessment: Integrated project (3)**

This course is designed to provide a critical overview of the theory and practice of Environmental Impact Assessment (EIA). Students will learn basic principles of environmental impact assessment and environmental impact reports in class. Students will practice how to conduct environmental impact assessments and write environmental impact statements and reports.

**WTRM-504: Ethics, Responsible Conduct of Research and Professional Responsibility (3)**

This course is designed to explore ethical rules and constraints, to provide students with an understanding of the standards of professional responsibility. Through a case-based approach, students will consider various ethical issues within the often competing demands imposed by the operation of the "rule of law" and concerns for public safety and security.

**WTRM-505: GIS for Water Resource Management (3)**

This course equips the student with a set of spatial data management and analysis tools, which can be applied to different water resources problems. The course focuses on the principle and application of the Geographical Information System to water resource management.

**WTRM-600: Stream Restoration (3)**

This course is designed to provide a technical understanding of the theoretical and practical principles of stream restoration used to return an impaired or degraded river corridor ecosystem to a close approximation of its remaining natural potential. The course explores the scientific basis of stream restoration programs through interdisciplinary theories and practice and presents principles of hydrology, sedimentation engineering, geomorphology, and ecology relevant to the design and evaluation of stream restoration projects. Students will be exposed to a variety of stream restoration concepts through lectures, seminars, field trips, and independent project assessments.

**WTRM-601: Water Quality Modeling (3)**

This course is designed to give graduate level students an overview of water quantity and quality aspects of surface water characteristics and the analytical methods used in the development of water quality models and the application of these models to stream and river systems, lakes and reservoir systems and estuaries. Students will develop and apply mathematical conceptualization and formulation of physical, chemical, biological processes to predict hydrological, water quality constituent transport and fate in the bodies of water. Student will be able to assess and predict current and future water quality status for both conventional pollutants and toxic organic contaminants. Water quality modeling and simulation tools include SWMM, WEST, QUAL2K and AQUATOX.



**WTRM-690: Internship (3)**

Students will be engaged in supervised work-and-learning experiences in water resources management under the direction of a University faculty members and employees of participating firms. Students are expected to dedicate ten (10) to twenty (20) hours a week to their internships during the academic year and twenty (20) to forty (40) hours a week during a five-week summer term. The internship program will have students involved in data collection, analysis and interpretation, field and/or laboratory experiences and writing reports.

**WTRM-699: Capstone Seminar (1)**

This course is designed for senior level graduate students to gain coherence in their comprehension of previous course studies and professional development. Students will practice and be able to critically review and analyze the latest research findings, write technical reports, and prepare a grant proposal in the area of their concentration.

**Health Education****HLTH 104 Introductions to History and Philosophy of Health Physical Education**

Examines the fields of health, physical education, and leisure studies in terms of historical development, philosophical foundations, professional standards, roles, and ethics. Discussion focuses on the disciplines' value and contributions to various community populations, including K-12 and senior citizens.

**HLTH 105 Personal and Community Health**

Examines primarily sound health knowledge, attitudes and behavior as they apply to the individual. Content covers the spectrum of health problems of concern to the individual from childhood through the senior years with special attention given to the urban environment.

**HLTH 111 Tennis I: Beginning Tennis**

Designed to provide instruction in the fundamental strokes, rules, regulations, scoring, etiquette, and strategy of tennis for both singles and doubles. The students will be expected to play points, games, and sets.

**HLTH 112 Tennis II: Intermediate Tennis**

Continues and reviews Tennis I, with special emphasis on strategy for singles and doubles.

**HLTH 118 Weight Management and Conditioning**

Designed to improve cardiovascular and muscular fitness through progressive exercise. Emphasis is placed on dynamic health, dietary analysis, and caloric intake adjustment.

**HLTH 119 Golf**

Emphasizes skills, techniques, regulations, rules, and strategy. Practical experience on public golf course is provided.

**HLTH 121 Swimming: Beginning Water Safety**

Offers opportunities for non-swimmers to develop basic strokes and to alleviate psychological problems centered on aquatic activities.

**HLTH 122 Swimming: Intermediate Swimming**

Continues beginning swimming and safety skills.

**HLTH 143 Yoga**

Deals with broad yoga concepts, with special emphasis on how one can personally apply these teachings to bring about desired changes in one's life.

**HLTH165 Weight Training and Conditioning**

Covers overall body development through progressive weight resistance and running programs. Individual fitness profiles developed.

**HLTH 174 Techniques and Skills in Dual Team Sports**

Includes skill development and teaching strategies of a selected number of dual and team sports including tennis, badminton, track and field, soccer, basketball, touch/flag football, softball, and volleyball.

**HLTH 178 Techniques and Skills in jogging and conditioning**

Designed to expose students to proper jogging, running and power walking techniques. Emphasis on proper equipment, conditioning techniques and safety concerns. Course will accommodate all fitness levels.

**HLTH 179 Handball Racquet Ball**

Covers basic skills and techniques of handball and racquetball; strategy, rules, and rules interpretation; singles and double play.

**HLTH 204 Prevention First Aid EMS**

Includes emphasis on accident prevention and proper injury management in the general and sport environment. Students will receive Red Cross Certification in CPR and First Aid upon completion of course requirements.

**HLTH 214 Survey of Public Health**

Presents a comprehensive overview of the public health field, including the history and philosophy of public health. The primary intent is to provide information, insight and perspective on a wide range of public health concerns impacting urban and rural populations, as well as children, adults, and the senior citizen.

**HLTH 314 Public Health Planning**

Designed to develop basic knowledge and technical skills required to identify and assess the magnitude of health problems and issues involved in developing, implementing, operating, managing, and evaluating programs for all ages of citizens from the young to the elderly.



### **HLTH 324 Organizations/Administration of School & Community Health Programs**

Designed for the student whose health career emphasis is focused on employment opportunities as a public health administrator or one who organizes health systems.

### **HLTH 390 Health Education Practicum**

Affords students the opportunity to participate and assist in a variety of public health settings, including programs aimed at all ages including senior populations. Prereq.: Health Education majors

### **HLTH 391 Intro to Adaptive Physical Education**

Is an overview of preventive and adaptive physical education as it relates to the broader program. Students will be expected to have some knowledge of physiology, anatomy, and kinesiology.

### **HLTH 404 Mental Health**

Provides thorough analysis of the definitions, scope, and extent of mental health. It also covers changing concepts in philosophy, treatment care services, training and therapy. Special attention is given to the urban environment and problems of all ages including the older citizen.

### **HLTH 405 Health and Safety in Community Populations**

Examines policies, practices, and procedures involved in the organization, administration, and supervision of comprehensive health and safety education programs in the community. Special emphasis will be given to understanding communicable diseases with respect to signs/symptoms, incidence, epidemiology, control and prevention. All ages from childhood through senior populations will be explored.

### **HLTH 406 Consumer Health**

Provides a comprehensive analysis of products and services needing consumer evaluation. The course examines those health products and services which can be fraudulent to the consumer, including all ages from youth through senior citizens.

### **HLTH 417 Health Education Internship**

Provides the opportunity for observation and work in a variety of health and recreational settings under professional supervision. Students are required to prepare periodic reports, a final work product, and attend biweekly seminars. Prereq.: Senior Health Education majors.

### **HLTH 424 Sex Education**

Designed to provide further insight into the physical, psychosocial, and religious factors associated with contemporary attitudes, perceptions, beliefs, myths, and human behavior relative to heterosexual relationships. Special emphases will focus on personal responsibilities, causation and prevention of pregnancy, and the social epidemiology of venereal diseases. Prereq.: Health Education majors

### **HLTH 426 Drug Use and Abuse**

Provides an interdisciplinary analysis of contemporary drug issues and problems. The course will examine physiological, psychological, social, philosophical, historical, legal, and health aspects of drug use and abuse. Special attention will be focused on planning and organizing current curricula materials for the teaching of drug education in the schools. Prereq.: Health Education majors

### **HLTH 465 Measurements and Evaluation**

Examines measurement techniques and statistical analysis in the fields of health, physical education and leisure studies. Special attention is given to test construction and the importance of statistical analysis in determining human services. Prereq.: Junior health education major. Prereq.: Health Education majors

### **HLTH 493 Seminar: Health Issues**

Provides students with a forum to openly discuss community health issues and problems in an academic setting. Topics will be aimed at all population ages from youngsters to senior adults. Current topics will be selected, prepared, and presented by the students with instructor approval. Prereq.: Health Education majors

### **HLTH 494 Senior Project (writing intensive course in the major)**

Equips the student in basic research techniques. Each student will successfully complete a comprehensive research project utilizing recognized research methodology. Students will present and defend projects with peers and the instructor Prereq.: Health Education majors

## **Nursing Completion Program Registered Nurse to Bachelor of Science**

### **NURS-300 RN-to BSN Transition Course (3)**

This course introduces the student to the program's conceptual framework. It provides the learner with the opportunity to expand their knowledge, values, and meaning in areas of nursing practice and health care, critical thinking and clinical reasoning, evidence-based practice, and conceptual models of nursing. Strategies that facilitate professional growth and acculturation, life-long learning and professional practice and values are the primary focus. Junior level (Level 1) standing in the RN-to-BSN program is required. This course is taught in the first year of the junior year (Level 1).

### **NURS-301 Health Assessment Theory (2)**

This course is designed to develop and refine health assessment skills through the use of appropriate knowledge, skills, and values. It includes identification of common health deviations, at-risk behaviors and variations for culturally diverse individuals. Modification of examination and the interview techniques and expected findings across the life cycle will be discussed. A variety of classroom activities will be utilized to enhance critical thinking and clinical judgment in health assessment. Junior level (Level 1) standing in the RN-to-BSN program is required. This course is taught in the first year of the junior year (Level 1). Required co-requisite – Health Assessment Lab.

### **NURS-302 Health Assessment Lab (2)**

This course provides guided practice in the development and refinement of specific assessment knowledge, techniques and skills (interview, health history taking, physical examination, use of age related data instruments and technology). This course assists the student to recognize normal and deviated health patterns, and at-risk behaviors. This laboratory is designed to refine and expand health assessment knowledge and skills in the performance of comprehensive health assessment of individuals and families across the life span. Junior level (Level 1) standing in the RN-to-BSN program is required. This course is taught in the first year of the junior year (Level 1). Required co-requisite – Health Assessment Theory.

### **NURS-345 Pathophysiology (3)**

This course provides the learner with an opportunity to analyze responses of the human body to altered states of health, environmental stressors, and the aging process. Genetic and cultural influences of disease are addressed. Pathophysiologic processes of selected diseases, reflective of the most common health disparities in the metropolitan area, are examined. Emphasis is given to interrelationships among the pathological, physiological, psychological and pharmacological factors. Selected modes of diagnosis and treatment modalities are also examined. Junior level (Level 1) standing in the RN-to-BSN program is required. This course is taught in the first year of the junior year (Level 1).

### **NURS-350 Ethical Issues in Health Care (3)**

This multidisciplinary course is designed to introduce health science/health care students to the ethical issues commonly encountered in health care and in health care delivery systems. Important ethical issues in health care and health care delivery will be reviewed and analyzed. Students are introduced to basic concepts of moral judgment, ethical theories and principles, and critical thinking processes that are necessary for sensitivity and analysis of ethical issues in the professional practice. A multidisciplinary team approach to case analysis and problem resolution is one of several approaches used to promote critical thinking and application of decision making models. Junior level (Level 1) standing in the RN-to-BSN program is required. This course is taught in the first year of the junior year (Level 1).

### **NURS-354 Gerontological Nursing Care (3)**

This course focuses on current health care issues affecting the older adult. It is designed to examine essential foundations for practice of Gerontological nursing care and to build on the knowledge, skills, meanings, and values associated with practice with an elderly population. The course emphasizes applying the nursing process to older adults experiencing wellness and self-care alterations. Selective pharmacological, legal, and ethical concerns are discussed. Junior level (Level 1) standing in the RN-to-BSN program is required. This course is taught in the first year of the junior year (Level 1).



### **NURS-356 Legal Issues and Health Care Policy (3)**

This course is designed to expand the learner's knowledge of the legal and policy systems and their influence on the health care delivery system and nursing practice. Legal issues related to nurse practice acts and nurse regulatory bodies, and the changing role and responsibilities of the nurse, are examined. Issues of funding methods, resource allocation, access to care, and disparities impacting the health care system are addressed from a policy perspective. Students will evaluate the effects of specified practice and health care laws and policies germane to practice, consumer health, the profession of nursing and identify factors they may influence in a proactive response to achieve quality patient outcomes. Junior level (Level 1) standing in the RN-to-BSN program is required. This course is taught in the first year of the junior year (Level 1).

### **NURS-305 Professional Nursing Issues in Practice Seminar (2)**

This course facilitates the learner's development and refinement of critical thinking and decision-making skills through application of knowledge and understanding to a health care/clinical issue. Analysis and integration of all prior course work are applied to the development of a program of care delivery or a proposal to address a health care issue for individuals, families and groups who fall within a health disparity group in the District of Columbia. The components of this course include systematic inquiry, evidence-based practice, professional identity, initiative, and self direction. Junior level (Level 1) standing in the RN-to-BSN program is required. This course and its co-requisite are to be taken in the last semester of the Junior level/first level of the program. Prerequisites include all general college courses listed in the program of study (POS) for the RN-to-BSN and all Junior level courses in the RN-to BSN Program of Study (RN-to-BSN Transition Course, Health Assessment Theory, Health Assessment Lab, Pathophysiology, Ethical Issues in Health Care, Gerontological Nursing Theory, Legal Issues and Health Care Policy. Co-requisite: Professional Nursing Issues in Practice Clinical.

### **NURS-306 Professional Nursing Issues in Practice Practicum (2)**

Provides an opportunity for the learner to demonstrate the application of critical thinking skills, systematic inquiry and integrated competencies pertaining to a specified area of health/health promotion identified in the theory component and reflective of a health/health care disparity in the District of Columbia. Emphasis is on increased initiative and self-direction in the selection of a clinical or health care area in efforts to increase expertise in a specified area or issue in practice related to health and/or health care disparities. Junior level (Level 1) standing in the RN-to-BSN program is required. This course and its co-requisite are to be taken in the last semester of the Junior level/first level of the program. Prerequisites include all general college courses listed in the program of study (POS) for the RN-to-BSN and all Junior level courses in the RN-to BSN Program of Study (RN-to-BSN Transition Course, Health Assessment Theory, Health Assessment Lab, Pathophysiology, Ethical Issues in Health Care, Gerontological Nursing Theory, Legal Issues and Health Care Policy. Co-requisite: Professional Nursing Issues in Practice Seminar.

### **NURS- 449 Leadership and Management Theory (3)**

This course is designed to expand the student's knowledge of organizational and leadership theories and strategies, and principles of management and change. Senior/ Level II standing. Completion of all Junior Level Course and admission to the Senior Level Program of Study of the RN-to-BSN Program of Study. Co-requisites: Leadership and Management Practicum.

### **NURS- 448 Leadership and Management Practicum (2)**

Description: Students will apply leadership and management knowledge, skills, and values to develop and/or enhance leadership behaviors in a specified health care organization or clinical area. The student will collaborate with a preceptor and faculty member to develop, implement, and evaluate a project that addresses an identified leadership or management issue/problem in the organization or clinical area. Recognition (of self and others) and application of effective leadership and management behaviors will be highlighted. Senior/Level II standing. Completion of all Junior Level Course and admission to the Senior Level Program of Study of the RN-to-BSN Program of Study. Co-requisites: Leadership and Management Theory.

### **NURS-455 Nursing Research (3)**

Enhances the knowledge and understanding of the research process and its relationship to evidence-based practice and quality patient care. Emphasis is placed on building competence in critical evaluation of published research and organizing a limited literature review in area of interest. Senior/Level II standing. Completion of all Junior Level Course and admission to the Senior Level Program of Study of the RN-to-BSN Program of Study.

### **NURS-464 Urban Community Health Issues Theory (3)**

This course is structured provides the student with a theoretical base for the practice of community/public health nursing and application of public health, community mental health, and home health nursing concepts. Analysis of communities in terms of health resiliencies and vulnerabilities are explored using principles from epidemiology, levels of prevention, and nursing research. Senior/Level II standing. Completion of all Junior Level Course and admission to the Senior Level Program of Study of the RN-to-BSN Program of Study. Co-requisite: Urban Community Health Issues Practicum.

### **NURS-465 Urban Community Health Issues Practicum (2)**

This course provides the student the opportunity to apply knowledge and competence in caring for individuals and families in a variety of community and home health settings. Principles from levels of prevention, epidemiology and research are applied and experiences are provided that assist the development of decision-making processes while providing services to special populations. Senior/Level II standing. Completion of all Junior Level Course and admission to the Senior Level Program of Study of the RN-to-BSN Program of Study. Co-requisite: Urban Community Health Issues Theory.

### **NURS-471 Clinical Preceptorship (Capstone) Seminar (2)**

Course Description: This course provides the student with the experience of collaborating with a nurse expert in a leadership role in a health care area of interest. The student will integrate and apply concepts, theories and principles from prior learning in a health care setting that matches his/her long term interest and professional goals. Students may select a mentor/coach from a variety of areas including management and leadership, practice, education, research, health care policy and/or ethics, safety and quality improvement, informatics and tele-health, and forensics. Focus is on developing a professional identity and competencies through systematic inquiry, synthesis of prior knowledge, experiential learning, and peer relationships. The student assumes responsibility for her/his learning by writing and achieving specific, achievable learning goals.

Senior level (Level 2) standing in the RN-to-BSN program is required. This course and its co-requisite are to be taken in the last semester of the Senior level/second level of the program. Prerequisites include all general college courses listed in the program of study (POS) for the RN-to-BSN and all Junior level and Senior level courses in the RN-to BSN Program of Study. Co-requisite: Clinical Preceptorship (Capstone) Practicum.

### **NURS-472 Clinical Preceptorship (Capstone) Practicum (2)**

This course provides the student the opportunity to experience collaborating with a nurse expert in a leadership role and critiquing key issues contributing to successful nurse leadership and professional development in a specified area. Emphasis is placed on enhancing the student's professional identity and growth and facilitating the student's self-identity and trajectory as a nurse leader and beginning expert in a chosen role and/or area of practice. The student may select a mentor/coach from a variety of areas including management and leadership, practice, education, research, health care policy and/or ethics, safety and quality improvement, informatics and tele-health, and forensics. Senior level (Level 2) standing in the RN-to-BSN program is required. This course and its co-requisite are to be taken in the last semester of the Senior level/second level of the program. Prerequisites include all general college courses listed in the program of study (POS) for the RN-to-BSN and all Junior level and Senior level courses in the RN-to BSN Program of Study. Co-requisite: Clinical Preceptorship (Capstone) Seminar.



## **Nutrition and Food Science (FDSC/NUFS)**

### **FDSC-103: Introduction to Food Science Lab (1)**

Co-requisite: FDSC-105. Students will develop laboratory skills to examine the characteristics of raw food materials and to explore the development, preparation, and preservation of food. This lab course runs for three hours.

### **FDSC-104: Introduction to Nutrition Lab (1)**

Co-requisite: FDSC 106. Students will collect personal dietary data using various techniques and analyze the nutrient composition and compare findings with the Dietary Recommended Intakes appropriate for age and gender. Water samples from students' homes will be tested for lead and other substances utilizing the UDC Environmental Quality Testing Lab. Students will analyze organic and inorganic nutrients from a 24-hour menu using homogenates that simulate digestion using blender. Students will develop skills to collect anthropometric measurements on themselves and their classmates and evaluate the results. Students will submit written lab reports based on scientific laboratory format.

### **FDSC-105: Introduction to Food Science Lecture (3)**

Co-requisite: FDSC-103. Students will explore food science and food technology through examination of the early history of food and the development of the food industry to the present. Students will discuss current and future opportunities in the food industry with a focus on emerging careers for food scientists and food engineers in a society that focuses on sustainability of resources. Students will develop an understanding of the general characteristics of raw food materials, harvesting, and processing of foods. They will learn about methods of food preparation that preserve the color, flavors, and nutrient content of foods.

### **FDSC-106: Introduction to Nutrition Lecture (3)**

Co-requisite: FDSC-104. This course prepares students of all disciplines to improve the nutritional health for themselves, their families, and their communities. It meets the university-wide life science requirement. Factors that affect the food choices of individuals across cultural groups will be emphasized. Basic information on the classification, chemistry, functions, and metabolism, and deficiency symptoms and dietary sources of essential nutrients will be discussed. Students will discuss basic issues of energy balance and utilize diet-planning guides, including MyPlate. Each student will research a nutrition topic from evidence-based sources and will present their findings to the class. Students will volunteer at a nutrition-related site in the District of Columbia area.

### **FDSC-209: Food Processing Lab (3)**

Prerequisites: FDSC-103, FDSC-105; co-requisite: FDSC-211. Students will have the opportunity to can, freeze, dehydrate, and ferment foods.

### **FDSC-210: Food Processing II Lab (1)**

Prerequisites: FDSC-209, FDSC-211; co-requisite: FDSC-212. Students will perform laboratory exercises in the manufacture of fabricated foods, snack foods, cereals, mayonnaise, and in the preservation of fruits and vegetables.

### **FDSC-211: Food Processing I Lecture (3)**

Prerequisites: FDSC-105, FDSC-103; co-requisite: FDSC-209. Students will explore the fundamental principles involved in food processing, refrigeration, freezing, thermal processing, dehydration, fermentation, emulsions, and more.

### **FDSC-212: Food Processing II Lecture (3)**

Prerequisites: FDSC-209, FDSC-211; co-requisite: FDSC-210. Students will explore the fundamental principles and major unit operations involved in the technology and commercial manufacture of fabricated foods, snack foods, cereals, mayonnaise and salad dressings. Students will visit various food industry plants to observe food plant layouts.

### **FDSC-324: Food Sanitation and Waste Disposal Lab (1)**

Prerequisites: FDSC-211, FDSC-209; co-requisite: FDSC-325. Students will conduct laboratory exercises for good manufacturing practice (GMP) and will learn the main tenets of sanitary conditions in the food processing and preservation industry.

### **FDSC-325: Food Sanitation and Waste Disposal Lecture (3)**

Prerequisites: FDSC-211, FDSC-209; co-requisite: FDSC 324. Students will examine the fundamental principles involved in maintaining sanitary standards in a food plant, including water and waste

disposal. This course focuses on the conditions and factors necessary to comply with regulatory agencies.

### **FDSC-326: Food Microbiology Lecture (3)**

Prerequisites: FDSC-240, FDSC-241; co-requisite: FDSC-328. Students will explore the relationship of the habitat to the occurrence of microorganisms in foods and the microbiology of food spoilage and food manufacturing. Students will explore physical, chemical and biological spoilage. They will learn about the destruction of microorganisms in foods and will perform microbial examinations of foodstuffs and public health sanitation and bacteriology.

### **FDSC-328: Food Microbiology Lab (1)**

Prerequisites: FDSC-240, FDSC-241; co-requisite: FDSC-326. Students will conduct laboratory exercises to identify food pathogens and how to control them in order to produce wholesome foods. Students will examine microbes of foodstuffs and their public health significance and bacteriology.

### **FDSC-442: Food Chemistry Lab (1)**

Prerequisite: CHEM-461 (Biochemistry); co-requisite: FDSC 444. Three hours of laboratory per week where students analyze the changes that occur during processing and utilization of foods using state-of-the-art chemical, physical and instrumental methods.

### **FDSC-444: Food Chemistry Lecture (3)**

Prerequisite: CHEM-461 (Biochemistry); co-requisite: FDSC-442. This course emphasizes the basic composition, structure and properties of food and the chemistry of changes that occur to foods during processing and utilization.

### **FDSC-490: Senior Seminar and Research (2)**

Prerequisite: Senior standing in the Bachelor's of Nutrition and Food Science Degree Program and permission of Department Chairperson and faculty research advisor. This capstone course involves critical review of literature on recent research in nutrition, dietetics, and food science and acquiring competency in writing proposals, conducting research, and presenting the research findings. Research will be conducted under the direction of Nutrition Department faculty members. Arrangements can be made to work under a preceptor outside of the university in collaboration with a UDC faculty advisor. Suggested sites of research include, but are not limited to, USDA Agricultural Research Center (ARC), UDC Agricultural Experiment Station, the UDC Environmental Quality Testing Lab, and other agencies and organizations located in the Greater Washington Metropolitan Area identified by the student and faculty research advisor. Submission of a written undergraduate thesis is required. All students enrolled in this course must earn certification in Responsible Conduct of Research before they can begin their research.

### **NUFS-313: Nutrition in the Life Cycle (3)**

Prerequisite: FDSC-106. Field visits to selected federal government and community agencies in the District of Columbia and guest speakers from organizations such as La Leche League highlight this course. How nutrient requirements are altered by physical development throughout life, from preconception, prenatal development, lactation, and adolescence to aging is covered. Students will translate this information into practical pointers in providing quality nutrition care for individuals and groups at various stages of development. Students will research and present reports on important community-based programs that span the life cycle. Oral presentations and peer assessment are emphasized. This course is targeted not only for nutrition and dietetics majors, but also for those in related fields of study, including nursing, education, public health, social work, counseling, and psychology. It is anticipated that beginning Spring 2013, part of this course will be taught online.

### **NUFS-314: Community Nutrition Lab (1)**

Prerequisite: FDSC-106 and permission of instructor/chairperson; co-requisite: NUFS-316. Selected organizations located in and around the District of Columbia, including public and charter schools, Head Start, WIC, and D.C. Public Housing, will provide students with real-life challenges to address. Students will apply strategies to meet nutrition needs outside of acute-care settings, with emphasis on nutrition education and food assistance programs. Students will gain an understanding of the complexities of the external environment on health outcomes. Students will be required to travel to local community nutrition sites during the semester.



**NUFS-316: Community Nutrition Lecture (3)**

Prerequisite: FDSC-106 and permission of instructor/chairperson; Co-requisite: NUF3-314 (Lab). An introduction to programs, policies, and institutions that influence nutrition services at the local, state, and national levels. This course supports the development of skills needed to practice nutrition in community settings with special attention to populations at high nutritional risk. Nutrition assessment, program planning and evaluation, and cultural competency are emphasized. Advocacy is an underlying theme for discussions and for individual and group projects. Certificates in (1) Protecting Human Research Participants and (2) Responsible Conduct of Research are expected to be earned by end of course.

**NUFS-317: Advanced Nutrition/Nutritional Biochemistry (3)**

Prerequisite: CHEM-461 (Biochemistry). This course emphasizes the significance of recent advances of fundamental concepts in the science of nutritional biochemistry. It presents basic biochemical cytology from the viewpoint of the nutritionist/dietitian, bringing nutrients to their loci of physiological and biochemical action. "Specialized cells," such as erythrocytes, adipocytes, hepatocytes, and nerve cells and their relationship to nutrients are emphasized.

**NUFS-320: Nutrition Education Lecture (3)**

Prerequisite: FDSC-106; co-requisite: NUF3-316. This course includes a survey of the philosophy, principles and methods of nutrition education. Discussions include reliable sources of nutrition information, tools and skills used in managing nutrition programs, and various aspects of nutrition surveillance, nutrition care and promotion. Cultural competency and effective communication are stressed. Guest speakers from agencies within USDA and other federal and District of Columbia departments will join the class throughout the semester. This course is targeted not only for nutrition and dietetics majors, but also for those in related fields of study, including nursing, education, public health, social work, counseling, and psychology.

**NUFS-321: Nutrition Education Lab (1)**

Prerequisite: FDSC-106; co-requisite: NUF3-320. Students will develop appropriate tools for nutrition education, including writing lesson plans and nutrition education evaluation tools. Developing curriculum, learning objectives, and goals for nutrition programs are also reviewed. Counseling skills also developed through in-class and field experiences scheduled in sites across the District of Columbia, including public and charter schools, faith-based organizations, and senior-citizen wellness sites. Participation in a mock Toastmasters International session will provide students with the opportunity to develop their communication and public speaking skills beyond the classroom. Nutrition Education generally precedes Geriatric Nutrition.

**NUFS-322: Nutrition Assessment Lecture (3)**

Prerequisite: NUF3-317; co-requisite: NUF3-323. This course emphasizes strategies to assess the need for adaptive feeding techniques, including alternative feeding modalities and drug and nutrient interactions. Students will design and implement intervention in urban and diverse population groups. Using role play and patient simulations, students will interpret and apply medical and nutrition terminology, examine interactions between drugs and nutrients, and apply Nutrition Care Process and nutrition intervention. Using profiles of residents of the District of Columbia, students will develop skills in evaluating, documenting, and simulating patient records, implementing culturally competent Medical Nutrition Therapy (MNT), applying evolving methods of nutritional assessment and support, and interpreting laboratory parameters.

**NUFS-323: Nutrition Assessment Lab (1)**

Prerequisite: NUF3-317; Co-requisite: NUF3-322. This course features opportunities for students to interact with clients and patients in underserved clinical settings located in medically underserved areas of the District of Columbia. Students will perform nutritional screenings and assessments, analyze and present nutritional data, assess nutritional status, and document patient's/client's medical record. This course enables students to acquire skills in assessing, planning, calculating and implementing Total Parenteral Nutrition (TPN) and Enteral Feeding. Students will present dietary habits of diverse population groups while exhibiting cultural competence. Students will present scientific literature on choices of alternative nutrition therapies.

**NUFS-374: Geriatric Nutrition Lecture (2)**

Prerequisite: FDSC-106 and permission of instructor/chairperson; co-requisite NUF3-375. This course is an overview of the physiological, psychological, and socioeconomic aspects of aging and their impact on nutritional health. This course includes in-depth discussions of nutritional assessment, nutrition programs, and chronic medical disorders associated with the older adult. Students will be required to present specific topics to their peers in an interactive manner throughout the semester. Geriatric Nutrition generally precedes Therapeutic Nutrition I and II and serves as an introduction to the diseases and conditions that are covered in more depth and over additional life cycles in subsequent courses.

**NUFS-375: Geriatric Nutrition Lab (1)**

Prerequisite: FDSC-106 and permission of instructor/chairperson; co-requisite: NUF3-374. Under the supervision of registered dietitians, student will work with older adults in various agencies across the District of Columbia. Students will develop or adapt lesson plans and provide nutrition education and nutrition screening to this population. Students may conduct food demonstrations, when applicable. A panel of senior citizens, in the format of "speed-dating," is the highlight of this course.

**NUFS-421: Therapeutic Nutrition I Lecture (3)**

Prerequisites: NUF3-317, NUF3-322 and permission of instructor/chairperson; co-requisite: NUF3-423. This course features opportunities for students to interact with clients and patients in underserved clinical settings located in medically underserved areas of the District of Columbia. Students will explore the pathophysiology, role of medications and the use of Nutrition Care Process to identify nutrition-related problems and determine and evaluate nutrition interventions and Medical Nutrition Therapy for Diabetes, Cardiovascular and Renal Diseases. NUF3-421 can be taken before or after NUF3-422.

**NUFS-422: Therapeutic Nutrition II Lecture (3)**

Prerequisites: NUF3-317, NUF3-322 and permission of instructor/chairperson; co-requisite: NUF3-423 (Lab). This course features opportunities for students to interact with clients and patients in underserved clinical settings located in medically underserved areas of the District of Columbia. Students will examine the physiology, pathology, risk factors and medical nutrition therapy for management of the following conditions: Cancer, Gastrointestinal Diseases, Diseases of the Nervous System, Eating Disorders, Alzheimer's, Parkinson's, and Food Allergies. NUF3-422 can be taken before or after NUF3-421.

**NUFS-423: Therapeutic Nutrition I Lab (1)**

Prerequisites: NUF3-317, NUF3-322; co-requisite: NUF3-421. Students will obtain hands-on clinical experiences and opportunities to work, under the supervision of registered dietitians, in local hospitals and long-term medical care facilities to assess, diagnose, chart and plan Medical Nutrition Therapy for patients with Diabetes, Cardiovascular and Renal Diseases.

**NUFS-424: Therapeutic Nutrition II Lab (1)**

Prerequisites NUF3-317, NUF3-322; co-requisite: NUF3-422. This course offers opportunities to explore and conduct research on environmental pollutants in the air, food and water in communities located in the District of Columbia. Students will work with patients living with allergies, cancer, gastrointestinal and neurological disorders to plan supporting strategies and Medical Nutrition Therapy. Students will participate in panel discussions applying evidence-based research and Medical Nutrition Therapy on all diseases covered in the lecture course. Patient simulations will also be incorporated.

**NUFS-426: Food Systems Management I Lecture (2)**

Prerequisite: FDSC-106; co-requisite: FDSC-428. The course emphasizes planning various types of hospital menu as the focal point of food service and offers skills to analyze and interpret nutrient composition of menus. Students will identify different types of food service operations, including food production, food delivery systems, quantity food production, procedures and principles of food procurement, markets, buyers, methods of purchasing, food receiving and storage, specifications, inventory records, recipe development and standardization, production control, production scheduling and demonstration of basic food preparation and presentation skills.



**NUFS-427: Food Systems Management II Lecture (2)**

Prerequisite: FDSC-106; co-requisite: NUF-429. Student will integrate the process and tools used in effective management, theories of management, and administrative leadership. Topics covered in this course include Total Quality Management, mechanics of cost control, planning of physical facility in relation to its needs and equipment, quality assurance in food production, and use of technology in food service institutions. NUF-427 can be taken before or after NUF-428.

**NUFS-428: Food Systems Management I Lab (1)**

Prerequisite: FDSC-106; co-requisite: FDSC-426. Students will visit various local food service facilities to observe food service operations including menus, production records, procurement, ordering and receiving foods, food specifications, food inventory and food production and tray line management. Students will submit visitation records and provide a summary of analysis and critiques of the facilities visited. This course provides the opportunity for students to complete a portfolio to simulate interviewing prospective candidates for a dietary department. This course also provides students with opportunities to network with representatives of Consumer Regulatory Affairs and to observe commercial food service operations. NUF-428 can be taken before or after NUF-427.

**NUFS-429: Food Systems Management II Lab (1)**

Prerequisite: FDSC-106; co-requisite: NUF-427. This is a hands-on lab course where students visit food service facilities located in the District of Columbia. Students will develop management tools, monitor quality assurances, and design floor plans for a simulated operational food service facility. Students will prepare documents for applying for state licensure for operating a food service facility.

**NUFS-501: Nutritional Epidemiology (2)**

This course introduces principles of epidemiology and methods used in the investigation of health-related events. The course will examine and emphasize detection of trends in disease and nutrition, including the distribution of diseases or other health-related states and events in human populations. Discussion on factors, especially in urban populations, that influence this distribution, (e.g., age, sex, occupation, ethnicity, and economic status) and the application of this study to control health problems will be emphasized. Topics covered include: basic epidemiology, statistical methods, and analytical issues related to diet and disease.

**NUFS-520: Medical Nutrition Therapy III (3)**

Prerequisites: NUF-422, NUF-424. This course emphasizes the relationship of xenobiotics to health inclusive of cancer, cardiovascular disease, diabetes, and other health issues. Students will discuss and present the biochemical functions of minerals and vitamins. The course will emphasize the comprehensive study of assessment of nutrition status by various methods, study of data collection techniques, nutrient analysis and dietary modifications, the new nutrition care process, and methods of nutritional support; current reimbursement issues, policies and regulations. Critical appraisal of published literature on specific topics in the above-mentioned areas will be prepared and presented by students in the course.

**NUFS-530: Pharmacology for Nutrition Professionals, Medical Nutrition Therapy IV (3)**

Prerequisite: NUF-520. This course provides an integrated approach to the biochemical functions and nutritional metabolism and drug-nutrient interactions of fat-soluble and water-soluble vitamins. The course emphasizes the comprehensive study of terms used by health care practitioners to describe laboratory, radiology, pathology procedures and pharmacological products for body systems. Other topics covered are pharmacokinetics, pharmacodynamics, bioavailability and biotransformation of drugs, drug-nutrient interactions of antibiotics, antiviral drugs, IV and TPN fluids, anesthetics, anti-histamine, autonomic, cardiovascular, central nervous system, gastrointestinal, hormones and synthetic substitutes, heavy metal antagonists, non-prescription drugs, herbal supplements and chemotherapeutic agents.

**NUFS-650: Nutrition Research Methods, Research and Thesis (2-6)**

Prerequisite: Senior standing in the Master's in Nutrition and Dietetics Degree Program and permission of Department Chairperson and faculty research advisor. This course involves

critical review of literature on recent research in nutrition and dietetics, and acquiring competency in writing proposals, conducting research, and presenting the research findings. Research will be conducted under the direction of Nutrition Department faculty members. Arrangements can be made to work under a preceptor outside of the university in collaboration with a UDC faculty advisor. Suggested sites of research include, but are not limited to, USDA Agricultural Research Center (ARC), UDC Agricultural Experiment Station, the UDC Environmental Quality Testing Lab, Georgetown University and other agencies and organizations located in the Greater Washington Metropolitan Area identified by the student and faculty research advisor. Submission of a written graduate thesis is required. All students enrolled in this course must earn certification in Responsible Conduct of Research before they can begin their research. All students should take an English Proficiency class prior to enrolling in the Nutrition Research Methods course.



## College Of Arts and Science-Course Descriptions

### ***Center for Urban Education***

Center for Urban Education

#### **EDUC 500 Introduction to Urban Teaching (fall-first 2 weeks-one credit)**

This highly interactive introductory experience for incoming Urban Teacher Academy participants orients aspiring teachers to basic premises. Recent controversies, and unspoken assumptions in the local, national, and global discourses on urban education and provides the opportunity for participants to articulate their personal stance toward teaching and learning in high-needs schools.

#### **ECCC 501 Applying Theories of Child Development in Early Education (fall)**

The most effective teachers of young children possess a deep, research-based understanding of how children learn, grow, and thrive, and draw on that knowledge to select developmentally appropriate teaching practices. Through careful examination of past and current theory and practice in human development, learning and motivational theories, this course grounds teacher candidates in theory and builds their skills in understanding and interpreting young children's child behaviors through a developmental lens. Drawing specific, actionable connections to effective teaching and management strategies receives special emphasis.

#### **ECCC 502 Impacts of Home, Community, Culture in Urban Early Childhood (fall)**

The most dynamic, effective early childhood classrooms reflect a thorough understanding of the family, community, and cultural contexts of young students. Through readings, discussions, presentations from guest speakers, and examinations of exciting and inspiring approaches to teaching in urban schools, teachers examine the impact of diversity in early childhood classrooms. An emphasis on treating diversity as an opportunity is woven throughout, and teachers develop the ability to acknowledge the challenges that some urban learners face while maintaining a deeply respectful, asset-based stance toward children and families.

#### **ECCC 503 Exceptional Educations, Differentiation, and Inclusion in Early Childhood (fall)**

What are the rights and needs of children who qualify for special education services or who have other exceptional learning needs? What does a teacher need to know about special education law and special education categories? What is the role of the general education teacher in ensuring that exceptional learners receive a high-quality classroom experience that meets their needs? Why are African American children and non-native speakers of English overrepresented in special education programs? This course surveys the legal and instructional implications of exceptional learners in the general education early childhood classroom and places special emphasis on contemporary best practices, such as inclusion, differentiation, and 'Response to intervention'. A field component is an integral part of this course.

#### **ECCC504 Assessing Learning in Early Childhood (Spring)**

What constitutes developmentally appropriate assessment in early childhood? What assessments are early childhood teachers expected to use in local schools, and how can the data from those assessments inform a rich, responsive, rigorous curriculum for young learners? What are the secrets of truly effective 'observation' of learning in early childhood settings? What sorts of assessment are appropriate for play-based teaching techniques? Teachers examine these and other critical issues in early childhood assessment to develop a wide repertoire of techniques for assessment and interpretation.

#### **ECCC 505 Managing the Early Childhood Environment (Spring)**

What makes an early childhood classroom 'work'? What do highly effective teachers do to prevent and resolve conflicts in early

childhood classrooms? How can classroom management build the essential social-emotional skills of self-regulation and cooperation in young children? By exploring the major theoretical and practical approaches to the ecology of the learning environment, teacher candidates develop skills to build and maintain developmentally and culturally responsive learning environments that facilitate child-centered, play-based learning for young children. The course includes strategies for involving students' families in classroom management. A field component is an integral part of this course.

#### **ECCI 501 Developing Language and Literacy in Urban Early Childhood (Spring)**

Early childhood is a critical time for the development of language and literacy skills. In this course, culturally focused research on initial language acquisition and second language acquisition among African American and Hispanic children from birth to age eight will be emphasized using a review of books, articles, websites and other instructional resources. The course will review the foundations of emergent literacy and explore methods of teaching early reading, with a focus on the use of children's literature. Teachers explore methods of teaching early reading, with a focus on the use of children's literature. Teachers explore and develop model curricula, instructional materials, and assessments designed to foster language and literacy development across early childhood, with a special emphasis on preschool through third grade.

#### **ECCI 502 Teaching Math, Science, & Technology to Young Urban Learners (Fall)**

Hands-on, cognitively challenging, conceptually sound instruction in math, science, and technology is essential for supporting children's development as critical and reflective thinkers. This course demonstrates how to apply developmental principles to investigate and devise experiences that employ mathematical reasoning and scientific processes. Using a hands-on approach, learners explore the various materials used in learning centers to stimulate and develop children's thinking and create lessons and learning experiences that work. A field component is an integral part of this course.

#### **ECCI 503 Exceptional Education, Differentiation, and Inclusion in Early Childhood**

If "play is child's work", what do highly effective teachers of young children do to make sure they "work smarter?" What specific cognitive and social emotional skills are developed through play, and how can a teacher identify, assess, and foster these skills? How must a classroom and a curriculum be designed for optimal play-based learning? What's the evidence that play-based learning leads to stronger outcomes for urban learners and exceptional learners? This course grounds teacher candidates in the theories and methods of play and creative arts as central approaches to teaching and learning, focusing on integrated approaches to what curriculum looks like and how it functions. A field component is an integral part of this course.

#### **ECCI 504 (ECED 510) Teaching Young Learners about the Self, Physical Education and Society (Fall)**

What do young learners need to know about themselves, their bodies, their communities, and their worlds in order to foster cognitive development? How can teaching these topics advance educational equity and social justice? How do effective teachers help children make connections across the curriculum, and how do teachers integrate essential literacy skills into these subjects? This course grounds teacher candidates in the social science concepts that are taught in early childhood classroom as well as related, developmentally appropriate methods of instruction. Using a hands-on approach, students will explore methods and materials used in social studies, health and safety, and physical education curricula. The course will also explore strategies for engaging and empowering young learners to become active, democratic citizens and critical, reflective thinkers. Special emphasis will be placed on connecting all



elements of a rich, responsive curriculum to the essential skills represented in the Common Core State Standards. A field component is an integral part of this course.

**ECTE 590 Apprenticeships in Urban Early Childhood Education (Spring)**

The final stage of the field experience enables students to participant full time in a student teaching internship in early childhood education, linking university course work to the real world of working with diverse young learners and their families. Teacher candidates serve as apprentice teachers under the supervision of experienced early childhood teachers and university-based clinical faculty. Over the course of sixteen weeks, teachers candidates take on gradually increasing responsibility for planning, instruction, assessment, and classroom management. The Teacher Performance Assessment completes the assessment process for this course. Prerequisite: Successful completion of ECCC and ECCI coursework sequences, successful completion of relevant licensing exams, and permission of program director.

**CNSL 532, Introduction to Research and Program Evaluation (Spring)**

This course examines qualitative and quantitative methods used in human services research, prepares students to read, analyze, and evaluate research, and equips them to evaluate the effectiveness of service delivery programs.

**ECTH 590 Thesis in Urban Early Childhood Education (Spring of Fall)** This course allows students an opportunity to design a study, review related literature, collect data, analyze and interpret research findings, draw conclusions, and make recommendations. Prereq: Completion of all core and specialization courses, and CNSL 532 or equivalent approved by advisor.

Master of Art in Teaching (MAT) Course

**EDUC 500 Introduction to Urban Teaching (Fall – first 2 weeks – one credit)**

This highly interactive introductory experience for incoming participants in the Urban Teacher Academy orients aspiring teachers to basic premises, recent controversies, and unspoken assumptions in the local, national, and global discourses on urban education, and provides the opportunity for participants to articulate their personal stance toward teaching and learning in high-needs schools.

**EDUC 501 Human Development, Learning & Motivation in Classroom Context (Fall)**

This course is a study of the principles of development, learning, and motivation during the school-age years, with a particular emphasis on applying developmental research to classroom contexts. Physical, cognitive, linguistic, social, and emotional domains of development are explored, as are theories of human behavior and motivation. Practical implications for the design of curriculum, instruction, and classroom management are explicitly drawn.

**EDUC 502 Case Studies in Effective Urban Teaching and Learning (Fall)**

Part methods course and part critical seminar, this course explores and analyzes prevalent instructional methods in urban teaching using the case study method. Participants will examine, deconstruct, practice, and critique various approaches to urban teaching and learning, developing a nuanced understanding of the term 'effective' and a personal repertoire of teaching techniques.

**EDUC 503 Culture, Context and Critical Pedagogy in Urban Classrooms (Spring)**

This course explores the historical, philosophical, racial, and socioeconomic factors that often impede effective teaching and learning in urban school contexts, using a systems-thinking approach in order to contextualize urban education, provide aspiring teachers with the skills necessary to serve as agents of positive change in the face of institutional challenges, and advance the learning of all students.

**EDUC 504 Portfolio Seminar: Planning, Reflection, and Professionalism (Summer Session II)**

The portfolio capstone course encourages candidates at the end of the MAT course sequence to synthesize their graduate studies to reflect on what they have learned, make concrete plans for applying their learning in their own classrooms, and articulate their personal and professional goals for their future teaching career. Participants will complete, revise, compile, or annotate the multiple work samples and key assessments into a portfolio that will serve as a major piece of evidence of mastery of standards for program completion and become a valuable resource during the challenging first year of teaching. Prerequisite: Practicum II or permission of program director.

**EDTE 501 Practicum I: Observation in Multiple Urban Settings (Spring)**

The first in a series of intensive field experiences, this practicum offers candidates in the Urban Teacher Academy the opportunity to gain a broad, firsthand introduction to the diverse public schools of Washington, DC. Candidates are placed in a series of three schools, each for a period of 4-6 weeks, where they serve as participant observers in the classrooms of outstanding teachers. The practicum also makes strategic use of 'mini-clinics' that provide candidates with the opportunity to visit a wide array of learning contexts across all eight wards of the city, observe a range of effective and engaging teaching practices, and meet some of the city's best educators. Daytime availability (Tues, Weds, and Thurs, 8am-4pm) is required, in addition to attendance at biweekly class meetings on campus. Prerequisite: Successful completion of first-semester course sequence, or by permission of program director.

**EDTE 502 Practicum II: Student Teaching (Summer Session I)**

The second in a series of intensive field experiences, this practicum is an abbreviated student teaching experience for candidates in the Urban Teacher Academy program. From approximately May 1 to June 15, teacher candidates lead classroom instruction under the supervision of an outstanding teacher. Full-time availability (M-F, approximately 8am-4pm) is required, in addition to weekly class meetings on campus. Start dates, end dates, and daily hours may vary according to school needs. The Teacher Performance Assessment is the final activity for this course. Prerequisite: Successful completion of all pre-service coursework requirements, including methods coursework and Practicum I, or by permission of program director.

**EDRD 501 Teaching Elementary Reading and Language Arts (Fall)**

Through readings, discussions, and sample teaching activities, this course gives candidates a thorough understanding of the principles of effective pedagogy for language arts instruction in the elementary grades, with a particular focus on reading. After providing a firm theoretical foundation in the process of reading and the principles of effective reading instruction, this course then explores how to apply those principles to classroom instruction through practical, proven methods of planning, instruction, and assessment. Teacher candidates examine key questions in the urban elementary language arts classroom such as, "How do I create a literacy-rich classroom environment where urban students learn to read and learn to love reading? What role might writing instruction play in creating powerful literacy experiences? What instructional strategies do I use when students are 'learning to read,' and how do I adjust my approach once students start 'reading to learn? How do I choose texts for instruction, and what are the social justice implications of my choices?" Taking these issues into account, candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that meet Common Core and NCTE/IRA standards for elementary literacy.

**EDRD 505 Teaching Adolescent Readers (Fall)**

Although many secondary teachers are drawn to the profession by a passion for content, it is essential for every middle and high school





teacher to possess the knowledge and skills necessary to facilitate reading comprehension. After providing a firm theoretical foundation in the process of reading and the principles of effective reading instruction, this course focuses on how to apply those principles to classroom instruction through practical, proven methods of planning, instruction, and assessment. Teacher candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that address Common Core literacy standards through instruction in the candidate's area of content specialization. Special emphasis will be placed on facilitating literacy among struggling readers, English language learners, and students who require accommodations.

**EDCI 521 Teaching Elementary Mathematics (Fall)**

If urban learners are to become powerful citizens with full control over their lives, then they need to be able to reason mathematically – to think logically, analyze evidence, and reason with numbers. Yet nationwide data show that too few students are getting access to these essential math skills. This course prepares elementary teacher candidates to provide instruction that puts students on the path to deep, meaningful numeracy. Candidates experience and practice different approaches to math instruction and assessment as they wrestle with several key questions. What do elementary students need to learn, and what are the most effective ways of teaching it? How can I demystify math for young learners and prevent math phobia? How can I teach math so students really understand what they're doing? How can I, as a teacher, tell when students are truly mastering concepts? Taking these issues into account, candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that meet Common Core and NCTM standards for elementary mathematics. Methods of checking for understanding throughout instruction receive special emphasis.

**EDCI 522 Teaching Science & Social Studies through Inquiry (Spring)**

A powerful and rigorous content-area curriculum engages students with significant ideas, encourages them to connect what they are learning to their prior knowledge and to current issues, to think critically and creatively about what they are learning, and to apply that learning to authentic situations. This course explores methods of inquiry-based teaching and assessment in elementary science and social studies, with a special emphasis on project-based learning, inquiry-based learning, and authentic assessment. Teacher candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that meet local and national standards for science education and social studies education.

**EDCI 523 Teaching the Integrated, Collaborative Curriculum (Spring)**

The most effective teachers understand that they teach children, not subjects. This course prepares teacher candidates to expand the elementary curriculum beyond the '3 Rs.' It provides creative methods, techniques, and materials for teaching the visual arts, movement, music, and health/nutrition, as well as ways to involve students' families and education professionals in the learning process. The course also explores ways to integrate teaching elements into other subject areas of instruction. Teacher candidates conceptualize and plan lessons that teach to the 'whole child' in the classroom.

**EDCI 541 Scope and Methods of Teaching Creative Arts (Spring)**

This course explores the pedagogy of art and music education which is critical for teacher candidates to develop the knowledge and skills to plan, organize, and facilitate meaningful art curricula for students encompassing a range of needs and abilities. Teacher candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that meet local and national standards for arts education in the candidate's focus area (visual arts education or music education).

**EDCI 551 Teaching Adolescent Writers (Fall)**

Through readings, discussions, and sample teaching activities, this course gives candidates a thorough understanding of the principles of effective pedagogy for writing instruction at the middle and secondary levels. Candidates closely examine several critical questions: "What is the purpose of teaching writing, and how do goals for composition connect to other aspects of the language arts curriculum? What instructional approaches and strategies can engage reluctant writers in finding their voice, even when their reading and composition skills are below grade level? How do I balance the ideal of a writer's workshop approach with the reality of short class periods and competing demands for instructional time? How do I translate my personal love of literature into positive outcomes for urban students? What are the most effective ways to take advantage of an urban writing classroom to promote greater social justice?" Taking these issues into account, candidates build on excellent examples of effective practice to create a personal, practical approach to writing instruction. Special emphasis is given to the nuts and bolts of managing the mammoth task of writing assessment in secondary schools – with techniques for offering effective written feedback, fostering self-assessment, and peer assessment that really works, using individual conferencing and multiple-traits rubrics.

**EDCI 552 Teaching through Literature (Spring)**

Through readings, discussions, and sample teaching activities, this course gives candidates a thorough understanding of the principles of effective pedagogy for teaching literature and literary criticism at the middle and secondary levels. Candidates closely examine several critical questions: "What is the purpose of teaching literature, and how do goals for literature connect to other aspects of the language arts curriculum? What texts might I be expected to teach, and how do I decide what additional texts to use? How do I translate my personal love of literature into positive outcomes for urban students? What instructional approaches and strategies can engage students in critical textual analysis, even when their reading comprehension skills are below grade level? What are the secrets of leading a great discussion?" Taking these issues into account, candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that meet Common Core and NCTE standards for literature and literary analysis. Special emphasis is given to techniques for scaffolding student understanding -without lowering expectations.

**EDCI 561 Scope & Methods of Teaching History (Fall)**

Through readings, discussions, and observations in local schools, this course provides teacher candidates with opportunities to become familiar with the wide-ranging opportunities and demands of middle and high school history classrooms. Candidates closely examine several questions: "How does a teacher who loves history translate that passion into student outcomes? What instructional approaches and strategies can engage students' natural curiosity, even on topics that seem distant from their daily lives? How does a teacher successfully cover 'history' in 36 weeks using a standards-based approach? What are the most effective ways to take advantage of an urban history classroom to promote greater social justice? How, given the narrowing of the curriculum to focus primarily on reading and math, can a history teacher support school-wide initiatives yet ensure that students develop an informed perspective on the past?" Taking these issues into account, candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that meet local and national standards for American and world history.

**EDCI 562 Scope & Methods of Teaching Social Studies (Spring)**



The purpose of the secondary social studies curriculum is to prepare middle and high school students to become informed, engaged participants in civic life. Through readings, discussions, curriculum development, and engagement with the unique resources of Washington, DC, this course prepares teacher candidates to advance this purpose in middle and high school urban classrooms. Candidates closely examine several questions: "What are the differences and similarities between history instruction and social studies instruction? How can a passionate DC teacher effectively integrate museums, government agencies, and other local resources into a standards-based curriculum? What instructional approaches and strategies can engage students' natural curiosity, even on topics that seem distant from their daily lives? How can social studies teachers support initiatives to improve student outcomes in literacy and math without sacrificing their own content? Taking these issues into account, candidates explore and develop model curriculum maps, unit plans, lesson plans, and assessments that meet local and national standards for geography, civics, economics, and local history.

**EDCI 571 Scope & Methods of Teaching Middle School Math (Fall – First 8 weeks)**

What does a teacher need to know and be able to do to ensure that middle school students not only learn math, but learn to love it? How do effective middle grades math teachers take into account the unique developmental cognitive and social-emotional needs of adolescents? What, exactly, are middle grades teachers expected to teach, and what are some tried-and-true ways of teaching it? This introductory content-pedagogy course helps aspiring middle grades math teachers explore the big ideas of their teaching field, develop an effective professional stance toward mathematics instruction, and begin to be able to use major methods of mathematics instruction. Unpacking the Common Core standards for middle grades math receives special emphasis.

**EDCI 572 MS Math Curriculum & Instruction I: Number System; Ratios & Proportions; and Statistics & Probability (Fall – Second 8 weeks)**

Proportionality is perhaps the most important connecting idea in middle school math. In other words, the ability to think deeply about ratios and proportions is needed to make sense of linear relationships, which opens the door to algebra and other advanced mathematical topics. What does a teacher need to know and be able to do to ensure that middle graders develop skills of proportional reasoning? How can teachers use proportionality as the 'big idea' that unifies math instruction across the all strands of math? This course is focused on practical, proven methods of planning, instruction, and assessment for middle grades instruction on these critical, powerful topics. Methods of checking for understanding throughout instruction receive special emphasis.

**EDCI 573 MS Math Curriculum & Instruction II: Geometry & Algebra (Spring)**

Research shows that middle grade students who achieve in algebra not only go on to complete high school but also demonstrate a high degree of college readiness. What does a teacher need to know and be able to do to ensure that middle graders in high-needs urban schools are ready for high school math? How can students be successful in advanced math topics even if their foundational math skills are below grade-level? This course is focused on practical, proven methods of planning, instruction, and assessment for middle school geometry and algebra. Special emphasis will be placed on how to alignment these methods with Common Core standards and techniques for differentiation according to student needs.

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***Speech Language Pathology***

**ADUL 520 Diagnostic Audiology (3)**

Focuses on techniques and interpretation of diagnostic test batteries. Introduces pure tone, speech, immittance audiometry and the role these play in differential diagnosis of hearing impairment;. Also includes an overview of special diagnostic testing, calibrating test equipment, and environment. Prereq: SPLP- 225.

**ADUL 552 Aural Rehabilitation (3)**

Provides an overview of acoustical and perceptual phonetics and the impact of hearing loss. Addresses assessment of hearing-impairment and its implications for habilitation. Reviews techniques for speech-reading, auditory training and counseling, including an overview of cued speech, manual communication systems and amplification systems (auditory training units, hearing aids and assistive listening devices). Prereq: SPLP 520.

**SPLP 617 Manual Communications Systems (3)**

Examines the linguistic bases for AMESLAN, SEE, Signed English, and other manual systems used by the severely hearing-impaired and the deaf. Considers sociolinguistics issues.

**SPLP 507 Speech and Hearing Disorders and Related Disciplines (3)**

Provides an overview of the practice of speech-language pathology including requirements for certification as an SLP, the discipline's code of ethics, disorders, and client populations served by the SLP. This course is required for new graduate students without an SLP background. Prereq: Graduate standing.

**SPLP 510 Survey of Linguistic Theory (3)**

Surveys descriptive and theoretical models for analyzing the grammar of a language. Gives particular attention to traditional and current models of grammatical analysis. Includes exercises in rule-writing for particular aspects of English syntax. Prereq: Graduate standing.

**SPLP 513 Sociolinguistics: Survey of Social Dialects (3)**

Surveys the linguistics rules characterizing various social dialects of American English, including historical and social issues which have led to diversity in American English. Includes as assignments the extraction of socially diagnostic linguistic variables from samples of English Dialects.

**SPLP 520 Neuroanatomy of the Speech and Hearing Mechanism (3)**

Examines the anatomy and physiology of the central and peripheral nervous systems as these relate to the speech and hearing mechanisms. Prereq: Graduate standing.

**SPLP 534 Stuttering (3)**

Examines the definition and description of stuttering as a disorder of fluency, discussion of speech and non-speech behaviors, types of stuttering, forms of stuttering, incidence and prevalence of stuttering, etiology, onset and development of stuttering, assessment, and treatment strategies..Prereq: Graduate standing.

**SPLP 535 Language Disorders (3)**

Examines the pragmatic, semantic, and syntactic features of children exhibiting disorders in oral and written language. Provides practical experience in the use of common language assessment protocols and the application of various language intervention strategies. Requires a basic knowledge of normal language acquisition. **SPLP**

**536 Phonological Disorders (3)**

Focuses on systems of speakers exhibiting phonological disorders, with emphases on diagnosis, analysis of phonological data, and remediation strategies. Discusses normal phonological acquisition as a baseline for examining disordered systems.

**SPLP 560 Practicum in Speech (3)**



Provides supervised clinical practicum in the identification, diagnosis, and treatment of communication disorders. Including techniques of interviewing and counseling. Includes discussion of requirements for the profession and professionalism. Prereq: Permission of the clinical director.

**SPLP 611 Physiological and Acoustic Phonetics (3)**

Examines anatomical and physiological factors that relate to the acoustic analysis of features found in connected speech. Also includes laboratory exercises in speech acoustics.

**SPLP 634 Aphasia (3)**

Focuses on language disorders in adults and children caused by lesions of the central and peripheral nervous systems. Discusses specific disorders such as aphasia due to left hemisphere lesions. Course also examines congenital aphasia, language disturbances caused by right hemisphere lesions, traumatic brain injury and dementia, including Alzheimer's disease. Prereq: SPLP 520

**SPLP 635 Structural Abnormalities/ Voice Disorders (3)**

Examines the perceptual and physical characteristics of disorders of voice. Discusses the etiology of these disorders and various assessment and treatment procedures. Prereq: SPLP 520.

**SPLP 636 Neurophysiological Disorders and Speech Swallowing (3)**

Focuses on speech and swallowing disorders related to central and peripheral nervous system disturbances, motor speech disorders and dysphagia, and the etiology and specific sites of lesion and resultant effects upon communication. Also discusses clinical management of these disorders. Prereq: SPLP 520 or permission of instructor.

**SPLP 674 Research Methods in Communication Sciences (3)**

Introduces students to basic research and statistical procedures in the communication sciences. Demonstrates how research can be used to answer important questions in speech-language-hearing disorders. Prereq: Graduate standing.

**SPLP 695 Independent Study (3)**

Allows graduate students the opportunity to explore areas of academic interest in which no formal course is available. Gives the graduate student the opportunity to explore an area which may lead to a thesis problem or which will further understanding in a particular area. Prereq: Permission of Program Director

**SPLP 698 Elective Subject varies. (3)**

**SPLP 699 Thesis (Variable Credits)**

Gives the student an opportunity to apply research theories and methodologies to the study of a topic of importance in the selected discipline. Enrolls students in the course according to their areas of concentration and faculty availability. Prereq: Permission of Program Director

## ***Communications***

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**JOUR 211 Fundamentals of Journalism (3)**

Surveys the journalism profession and practice of journalism with emphasis on news gathering, writing, and editing according to format and stylebook rules. Provides practice in basic writing skills. Daily assignments emphasize accuracy and deadlines with skill development drills in note-taking and interviewing. Focuses on classroom assignments that are geared to the mandatory use of the VCT's in the News and Journalism Lab. Prereq.: Foundation-Level Writing Course

**JOUR 212 News Reporting (3)**

Introduces students to specialized news gathering, writing, and editing by way of beat reporting and rewrite assignments. Introduces techniques of developing news contacts and writing

stories by research and intensive interview (controlled aggression). Explains how to edit stories according to the AP/UPI Stylebook. Provides off-campus assignments; deadlines-oriented stories that must be composed and edited on the VDT's in the News and Journalism Lab. Prereq.: JOUR 211

**JOUR 213 News Production (3)**

Emphasizes practical aspects of print media production, including copy editing, photo cropping, headline writing, copy fitting, electronic composition, design, and layout. Emphasizes measuring columns and gallery proofing as well as exposure to electronic page design and layout methods using the computers in the News and Journalism Lab. Prereq.: JOUR 211

**JOUR 311 News and Journalism Lab I (3)**

Provides practical experiences for students as news reporters, researchers, copy editors, make-up editors, layout editors, editorial writers, reviewers, columnists, critics, and photographers for the News and Journalism Laboratory's print and online newspaper, the FREE VOICE. Prereq.: JOUR 213

**JOUR 312 News and Journalism Lab II (3)**

Continues Lab I, with participants being rotated in several editorial positions during the semester. Focuses on developing theme-centered issues of FREE VOICE. Allows the entire class to work as newsroom staff of a small weekly print and online newspaper, learning collective responsibility as well as professionalism, and workplace ethics. Develops skills in troubleshooting day-to-day situations in the newsroom. Prereq.: JOUR 311 or permission of the Instructor

**JOUR 314 Feature Article Writing (3)**

Provides advanced writing course in feature length non-fiction for magazines, newspapers, and websites. Emphasizes generating article ideas, focusing research on the topic, stylistic writing, and close editing. Studies magazine analysis and market research. Students will be required to write several assignments for publication. Also, students will practice writing query letters to editors. Emphasis will be placed on developing a personal filing system of source materials. Prereq.: JOUR 211, Discovery Level Writing Course

**JOUR 315 Web Journalism (3)**

The Internet gives journalists a new and dynamic way to tell stories; however, to do so, they need new skills. This course introduces students to the tools required to report, write, and shoot for online media. The course focuses on producing original, community based stories in addition to breaking news items, allowing students to hone their research, planning, reporting skills, and production skills which are necessary to create web content which is innovative, ethically sound, and technically competent..

**JOUR 316 History of the Black Press (3)**

Survey of the recorded history of the Black Press, also known as the Crusade Press and the Protest Press of America. Course will focus on the minority press in America with special emphasis on the historical Negro press evolving into the triumphant press of the Harlem Renaissance and the militant media of the Civil Rights era and beyond. Course uses a seminar format, consisting of lectures, presentations, and discussions on prominent Black journals and journalists from past to present

**MMED 105 Processes of Communication (3)**

Introduces factors involved in human communication. Includes a study of the human being as receiver and sender of information, methods of encoding and decoding information, mechanics of



communication, and the nature of communication systems from intra-personal to mass communication.

**MMED 107 Introduction to Mass Media (3)**

Introduces the history and development of mass communication. Studies the effect of mass media upon society and the corresponding effects of economic, social, and political structures upon the nature and function of mass communications. May be taken concurrently with MMED 105. Prereq: Foundation Level Writing Course

**MMED 116 Audio Visual Foundations (3)**

Surveys physical principles of sound, light, optics, and basic electronics essential to understanding television, motion pictures, and other methods of information storage and retrieval. Prereq.: Foundation Level Writing Course

**MMED 214 Introduction to Public Relations (3)**

Surveys public relations (PR) as a management function, using the media approach for free positive publicity. Emphasizes PR writing skills and news management by developing media and community relations. Provides a comparative study of the structure, functions, and strategies of major local PR organizations. Instructs on how to write news releases, public service spots, media coverage requests, fund-raising letters, print and electronic ad copy, PR campaigns, and crisis management programs. Prereq.: MMED 107

**MMED 215 Advertising (3)**

Surveys the advertising industry, with emphasis on advertising as a marketing tool. Emphasizes organizational objectives, target market determination, the market and media mix, and client and agency aspects of advertising. Also examines designing, executing, and evaluating the advertising campaign. Prereq.: MMED 107

**MMED 216 Media Ethics (3)**

Focuses on the ethical and moral considerations faced by media specialists including news journalists, public relations specialists, advertising specialists, and entertainment professionals. Class discussions concentrate on the successes and failures of a wide variety of ethical dilemmas and their implications for the media and society. Instructs students on how to develop ethical decision-making processes related to mass media processes and activities.

**MMED 315 Writing for Media (3)**

Examines writing for film and television. Focuses on script formats and writing requirements for both media fiction and nonfiction treatments, screenplays, teleplays, and shooting scripts. Prereq.: Permission of instructor, Discovery Level Writing Course

**MMED 398 Directed Study Journalism/Electronic Media or Video/Digital Production (3)**

Involves proposals approved by the instructor on a subject determined by the student's area of interest. Requires weekly progress meetings. Prereq.: Junior standing, 2.8 GPA in major courses, and permission of Department Chair

**MMED 495 Independent Study Mass Media (3)**

Involves a thesis proposal, project, or internship determined by the student under the supervision of an instructor. Prereq.: Junior standing, 2.8 GPA in major, and permission of Department Chair

**MMED 497 Communicative Arts Seminar (3)**

An interdisciplinary seminar focusing on problems of creation and communication common to theater, dance, and mass media. Students draw heavily on course work in area of concentration. Explores through reading, class reports, journals, and relevant individual projects the relationships between the public, the artist, or the mass communicator. Provides a larger and more unified

perspective of the individual's major field. Prereq.: Junior standing, 2.5 GPA in major and permission of Department Chair

**MMED 520 Mass Media for Public Administrators (3)**

Focuses on skills critical for producing effective oral and written communications, and scientific presentations. Also discusses methods for improving general speaking skills, and tools for communicating with non-specialist policy makers. Course is targeted especially to those in the STEM (science, technology, engineering, and math) professions, and is designed specifically to help lower anxiety about public speaking. Prereq.: Graduate Standing

**FILM 201 Fundamentals of Television Production (3)**

Introduces television and video production. Surveys technical requirements and characteristics of video input, output, and control systems. Students learn how to operate cameras, videotape recorders, and audio input and control. Uses technical and creative lighting techniques. Prereq.: MMED 116

**FILM 211 Introduction to Studio TV Production (3)**

Examines studio production, including the care and operation of video hardware, duties of studio personnel, and technical direction. Introduces students to studio production concepts, techniques, and disciplines. Prereq.: FILM 201

**FILM 212 Advanced Studio TV Production (3)**

Advanced study of the application of video hardware, software, and techniques to the problems of studio TV production including scripting, producing, and directing video programs. This course continues the study of studio production, covering the care and operation of video hardware and duties of studio personnel and technical direction. Designed specifically for students to hone their skills in studio production concepts, techniques, and disciplines. Prereq.: FILM 211

**FILM 234 Fundamentals of Film Production (3)**

Focuses on 'picture' as a communication medium-synthesis of time and space. Covers the image, the shot, and sequence as ideograms, and the development of personal statements in video/film. Prereq.: MMED 116 Audio Visual Foundations

**FILM 311 Introduction to Remote TV Production (3)**

Involves the study of video equipment used in electronic field production and production techniques. Also examines video editing techniques and all aspects of producing and directing video remotes. Prereq.: FILM 201

**FILM 312 Advanced Remote TV Production (3)**

Involves the study of the basic elements of creating of a video documentary. Emphasis will be placed upon operation and techniques of EFP equipment, location producing and directing, and post-production video. Prereq.: FILM 311

**FILM 338 Video Editing Digital (3)**

Focuses specifically on video postproduction from nonlinear digital editing to still and motion graphics compositing. Introduces students to different software and hardware packages used for editing video footage, and 2-D animation. Students complete editing/compositing exercises which culminate in editing student projects. Particular emphasis is placed on scheduling, media storage/retrieval, and working in group situations. This course continues the aesthetic principles from field production into postproduction with an eye on real-world projects. Prereq.: FILM 201

**IGED 130 Foundations of Oral Communication (3)**

This collaboratively taught seminar pairs two disciplines – public speaking and another discipline such as theatre, health, French,



Spanish, or television production. Students present informative and persuasive speeches using extemporaneous and manuscript delivery formats with the application of current technology. Topics are generally selected from the supportive discipline. Course fulfills a General Education Foundations course requirement.

**SPCH 116 Voice and Articulation (3)**

Explores the science and art involved in the production of speech sounds, and the development of a flexible vocal and articulatory mechanism. Techniques learned can be applied to conversation, voice over reading, acting, broadcasting, teaching, and presentational skills.

**SPCH 211 Debate Techniques I (3)**

Explores fundamental debate principles. Current social and political debates will be studied to provide an understanding of debate techniques and application. Students will Examine and research local issues and actively engage in debating them.

**SPCH 241 Competitive Public Speaking I (3)**

Course is part of a two-course series designed to prepare students to compete in intercollegiate speaking competitions or to serve on competitive academic teams such as the Honda Campus All-Star Challenge Team. Students learn event coordination and planning in regards to conducting tournaments/competitions.

**SPCH 242 Competitive Public Speaking II (3)**

A continuation of Competitive Public Speaking I Provides experience in competition in local and national tournaments, and paid/non-paid internships in event coordination and planning. Prereq.: SPCH-241 or membership on a University competitive academic team; requires permission of the Instructor.

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**Education**

**ECED 104 History and Philosophy of Early Childhood Education (3)**

Traces the theoretical, social, and political roots of early childhood education. Discusses the impetus for the development of nursery schools, Head Start, special education programs, multicultural education, and child care. Highlights policy issues affecting young children and their families. Field experiences required.

**ECED 105 Principles of Child Development (3)**

Presents human development through the life span, with special emphasis on cognitive, language, physical, social, and emotional development, both typical and atypical, from birth through age 8. Requires twenty hours of clinical observation.

**ECED 204 Curriculum Content in ECE (3)**

Analyzes existing curricula emphases in Early Childhood Education as a basis for designing, developing, and evaluating curricula for use in early childhood education settings. Prereq.: ECED 104 and 105.

**ECED 205 Advanced Child Development (3)**

Examines the principles of development with emphasis on school age and adolescence. Stresses positive physical, cognitive, social and emotional development, along with building self-esteem. Prereq.: ECED 104, 105.

**ECED 206 Infant Education (3)**

Focuses on developmental characteristics of infants from the prenatal period through two years of age with emphasis on guidance of infants and toddlers within family and group care settings, and development in the context of the family, program, and society. Requires participation with infants. Prereq.: ECED 104 and 105.

**ECED 207 Understanding Self and Relationships (3)**

Explores dynamic socialization processes involving children, adolescents, peers, parents, and society. Discusses sources of developmental and individual differences in identity formation and

attainment, as well as theory and research related to social and emotional development of children and adolescents.

**ECED 208 Emergent Literacy (3)**

Explores how language and literacy develop in young children. Students will identify literacy activities for young children that are appropriate to their age and development. Emphasis on creating an environment that encourages concepts and language development that make literacy practices practical.

**ECED 224 Planning and Administration of Early Childhood Programs (3)**

Discusses guidelines to achieve quality programming for early childhood programs. Focuses on effective interpersonal communication skills in program management; principles of management and operation; and designing and scheduling appropriate space and activities. Prereq.: ECED 104 and 105.

**ECED 225 Administration and Supervision of School Age Care Programs (3)**

Focuses on administration, financial, and program management and the foundations of quality school age programming. Focuses on planning a safe, healthy environment for before- and afterschool care and strategies for effective program management. Prereq.: ECED 104 and 105.

**ECED 230 Practicum I (3)**

Provides directed observation and participation with preschool and primary grade (1-3) children. Focuses on instruments, skills, and assessment strategies of young children. Provides experience in team assessments. Requires lecture and 30-hour practicum. Prereq.: ECED 104 and 105.

**ECED 245 The Child in the Family (3)**

Considers the influence of family interaction in the management of children and personality development and the impact of parental practices on child rearing. Examines current issues with appropriate multicultural examples, including child care and nontraditional parenting situations. Prereq.: ECED 104 and 105.

**ECED 301 Methods and Materials for Teaching Mathematics, Science, and Technology in Early Childhood Education (3)**

Emphasizes activities and materials for teaching mathematics and science. Uses competency-based approach to define goals, concepts, and skills. Develops curriculum based on the stages of early childhood development and how learning can be evaluated. Emphasizes planning for teaching, classroom management, use of instructional resources, and related technology. Practicum required. Prereq.: Admission to the Teacher Education Program. Field experiences required.

**ECED 302 Methods and Materials for Teaching Language Arts and Social Studies in Early Childhood Education (3)**

Emphasizes language and literacy skills, geography, culture, and heritage through speaking, listening, reading, and writing. Introduces students to strategies to promote pro-social behavior, social awareness, and interpersonal skills. Emphasizes planning for teaching; evaluative devices; classroom management; use of instructional resources; and related technology. Practicum required. Prereq.: Admission to the Teacher Education Program. Field experiences required.

**ECED 304 Play Activities and Materials (3)**

Examines the principles of evaluation and selection of play activities and materials for pre-school and children in grades 1-3. Explores the design of learning environments and play strategies appropriate for individuals and groups and for appropriate developmental levels. Prereq.: ECED 104 and ECED 105.



**ECED 314 Teacher, Child, School and Community Interaction (3)**

Concentrates on giving students an insight into parental involvement with the child, the school, and the multi-cultural community. Provides opportunities for students to have firsthand experiences with community organizations and government agencies concerned with the welfare of young children.

Prereq.: ECED 104, 105; ELED 222.

**ECED 326 Practicum II (3)**

Provides direct observation and participation with preschool and primary grade (1-3) children. Focuses on management strategies and program activities for early childhood education. Allows opportunities for students to gain experience in assisting the classroom teacher. Requires lecture and 30-hour practicum.

Prereq.: ECED 104, 105; ECED 230.

**ECED 406 Observation and Student Teaching in Early Childhood Education (VC)**

Focuses on observation and practical experiences in prekindergarten and primary grades. Evaluates students' proficiency of theoretical concepts, content, and teaching strategies. Requires weekly professional development seminar. Prereq.: Clearance by major advisor and Coordinator of Field Services, Student Teaching, and Teacher Certification. Prereq: ECED 230; ECED326.

**ECED 408 The Young Child in a Multicultural Society (3)**

Concentrates on enhancing students' appreciation of and respect for other cultures. Employs modules of the study of cultures such as those of African, Asian, Spanish-speaking, and Native American traditions and values. Emphasizes strategies for utilizing these materials in the early childhood setting. Prereq.: EDPY 300.

**ECED 409 Workshop, Seminar, Institute (3)**

Presents topics/problems related to issues in education. Designed for special groups that wish to explore current topics and issues relevant to the field of education.

**ELED 220 Foundations of Education (3)**

Presents historical, philosophical, psychological, and social foundations of education in America. Focuses on constitutional and statutory provisions for public school education. Emphasizes the role of teaching and learning in a multicultural environment. Field experience required.

**ELED 222 Children and Youth in Urban Schools (3)**

Provides an overall perception and understanding of the school as an integral part of society in an urban environment. Emphasizes the role of the teacher in promoting and understanding multicultural awareness. Explores other major contemporary issues/concerns encountered by urban educators.

**ELED 405 Classroom Management (3)**

Provides instruction in the various techniques for effective management of a K-12 classroom. Emphasis is on creating positive learning environments and developing effective classroom instructional practices.

**ELED 434 Methods of Teaching Business Subjects in Secondary Schools (3)**

Focuses on current instructional strategies used to facilitate learning business in secondary schools. Emphasizes planning for teaching; effective utilization of instructional resources; and related technology for teaching specific content to the learner. Prereq.: Junior standing and permission of Department Chairperson. Field experience required.

**ELED 445 Methods of Teaching Art (PreK-12) (3)**

Focuses on current instructional strategies used to facilitate learning art at the Pre-K-12 levels. Emphasis is on planning for teaching;

effective utilization of instructional resources; evaluative devices; classroom management; and related technology for teaching specific content to the learner. Prereq.: Junior standing and permission of Department Chairperson. Field experience required.

**ELED 446 Methods of Teaching Science in the Secondary Schools (3)**

Focuses on current instructional strategies used to facilitate learning science in secondary schools. Emphasizes planning for teaching; effective utilization of instructional resources; evaluative devices; classroom management; and related techniques for teaching specific content to the learner. Prereq.: Junior standing and permission of Department Chairperson. Field experience required.

**ELED 449 Methods of Teaching English in the Secondary Schools (3)**

Focuses on current instructional strategies used to facilitate learning English in secondary schools. Emphasizes planning for teaching; effective utilization of instructional resources; evaluative devices; classroom management; and related techniques for teaching specific content to the learner. Prereq.: Junior standing and permission of Department Chairperson. Field experience required.

**ELED 450 Methods of Teaching Foreign Languages (Pre-K -12 ) (3)**

Focuses on current instructional strategies used to facilitate learning foreign languages at the pre-K-12 levels. Emphasis is on planning for teaching; effective utilization of instructional resources; evaluative devices; classroom management; and related techniques for teaching specific content to the learner. Prereq.: Junior standing and permission of Department Chairperson. Field experience required.

**ELED 452 Methods of Teaching Social Studies in the Secondary Schools (3)**

Focuses on current instructional strategies used to facilitate learning social studies in secondary schools. Emphasizes planning for teaching; effective utilization of instructional resources; evaluative devices; classroom management; and related technology for teaching specific content to the learner. Prereq.: Junior standing and permission of Department Chairperson. Field experience required.

**ELED 454 Methods of Teaching Mathematics in Secondary Schools (3)**

Focuses on current instructional strategies used to facilitate learning mathematics in secondary schools. Emphasizes planning for teaching; effective utilization of instructional resources; evaluative devices; classroom management; and related technology for teaching specific content to the learner. Prereq.: Junior standing and permission of department chair. Field experience required

**ELED 458 Music for the Specialist (Pre-K-12) (3)**

Studies music objectives, concepts, curricular plans, and materials; the development of techniques and strategies for the instruction of students, Pre-K-12; effective utilization of instructional resources; classroom management and related technology. Practicum is required. Prereq.: Junior standing in music and music education for vocal and instrumental majors.

**ELED 461 Methods of Teaching Creative Arts in Elementary Schools (3)**

Focuses on methods, materials, and procedures to be used at the early childhood and elementary levels for teaching creative arts (art, music, drama, movement, literature, storytelling). Emphasizes lesson planning, classroom management, assessment, and use of technology in teaching. Prereq.: Junior standing.

**ELED 470 Observation and Student Teaching in Secondary Schools (VC) (For Music Majors Only)**

Provides opportunities for students to teach one-half day for one semester or one whole day for one-half semester in a junior or senior high school. Requires weekly professional development seminar. Prereq.: Clearance by major



advisor and Coordinator of Field Services, Student Teaching, and Teacher Certification.

**ELED 471 Observation and Student Teaching in Secondary Schools**

**(VC)** Focuses on observation and full-time practical experiences in junior or senior high settings under the guidance of a certified teacher and college supervisor. Evaluates students' proficiency of theoretical concepts, content, and teaching strategies. Requires weekly professional development seminar. Prereq.: Clearance by major advisor and Coordinator of Field Services, Student Teaching, and Teacher Certification.

**ELED 495 Independent Study (3)**

Allows students an opportunity to pursue any topic germane to the Department on an individual basis. Allows students to study subject matter of special interest under faculty supervision and counsel. Prereq.: Permission of Department Chairperson.

**EDPY 215 Technology for Teachers (3)**

Incorporates technology tools and resources to locate Internet resources, collect data, develop lesson plans, create support materials, publications, multimedia presentations, and begin a web site.

**EDPY 244 Human Development and Behavior (3)**

Presents a study of the intellectual, physical, emotional, and social growth processes over the life span. Emphasizes theories of growth, development, and learning. Field experience required.

**EDPY 300 Educational Psychology (3)**

Examines current theory and practice in the teaching/ learning process. Explores implications of theories for teaching/learning activities. Discusses methods of assessing student learning, performance assessments, and standardized tests.

Prereq.: ELED220 and ELED 222. Field experience required.

**EDPY 475 Measurement and Evaluation of Teaching and Learning (3)**

Provides techniques of measurement and evaluation of achievement, adjustment, and intelligence. Studies informal teacher made tests and standardized tests. Develops criteria for the selection of instruments of evaluation. Includes elementary statistics to enable the student to analyze and interpret the results of testing.

**ECED 304 Methods and Materials of Teaching Language Arts in Elementary Schools (3)**

Provides pre-service teachers with the theoretical background and instructional strategies for teaching the language arts. Includes topics such as aural-oral communication, listening, speaking, reading, literature, written composition, hand writing, and spelling. Emphasizes planning; classroom management; use of instructional resources, and related technology. Requires practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**ECED 305 Methods and Materials of Teaching Social Studies in Elementary Schools (3)**

Focuses on traditional and innovative ways to teach the elementary school social studies curriculum. Emphasis is on analyzing and practicing research-based pedagogy and the relationship between social science and social studies. Additionally, it explores the resources and materials needed to effectively guide children to the achievement of social studies goals and objectives and the planning, management, and technological tools required. Requires practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**ECED 306 Methods and Materials of Teaching Mathematics in Elementary School (3)**

Examines the objectives, content, methods, and instructional materials of mathematics and mathematics instruction for the

elementary grades. Emphasizes the nature of mathematics, consumer mathematics, metric education, and diagnostic and prescriptive techniques of teaching mathematics. Emphasizes planning; classroom management; use of instructional resources, and related technology. Requires practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**ECED 307 Methods and Materials of Teaching Science in Elementary Schools (3)**

Examines the objectives, content, methods, and instructional materials of science and science instruction in the elementary grades. Emphasizes the processes and techniques of science and how teachers can help pupils use such processes in problem solving situations. Emphasizes planning; classroom management; use of instructional resources, and related technology. Requires practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**ECED 330 Practicum I (3)**

Provides directed observation of and participation with primary children. Focuses on one-to-one tutoring, developing mini lessons, providing individualized instruction, monitoring small groups, and related teaching activities. Lecture and 30-hour practicum are required. Prereq.: ELED 220 and ELED 222.

**ECED 428 Classroom Management (Elementary) (3)**

Provides instruction in the various techniques for effective management of a K-6 classroom. Emphasis is on creating positive learning environments and developing effective classroom instructional practices.

**ECED 430 Practicum II (3)**

Provides directed observation of and participation with intermediate children. Focuses on one-to-one tutoring, developing mini-lessons, providing individualized instruction, monitoring small groups, and related teaching activities. Requires lecture and 30-hour practicum. Prereq.: ECED 330

**ECED 434 Observation and Student Teaching in the Elementary School (VC)**

Focuses on observation and full-time practical experiences in an elementary school setting under the guidance of a certified teacher and a college supervisor. Requires weekly professional development seminar. Prereq.: Clearance by major advisor and Coordinator of Field Services, Student Teaching and Teacher Certification. Prereq.: ECED 330; ECED 430.

**ECED 435 Observation and Student Teaching in Elementary Schools (VC) (For Music Majors Only)**

Provides opportunities for students to teach one-half day for one semester or one whole day for one-half semester in an elementary school. Prereq.: Clearance by major advisor and Coordinator of Field Services, Student Teaching, and Teacher Certification.

**RDNG 305 Children's Literature (3)**

Enables pre-service teachers to develop the ability to select, present, and interpret literature appropriate to the ages and developmental stages of learners. Emphasizes the selection of books for children and the work of illustrators. A literature-based reading approach is used.

**RDNG 314 Methods and Materials of Teaching Reading in Elementary Schools (3)**

Focuses on historical aspects of reading instruction in America and the analysis and evaluation of con-temporary methods and state-of-the-art reading instruction. Emphasizes planning; classroom management; use of instructional resources, and related



technology. Requires practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**RDNG 315 Methods and Materials of Teaching Reading in the Secondary Schools (3)**

Focuses on the nature of the reading process, cognitive skills, developing vocabulary, comprehension and interpretation skills, and recommended content area reading practices for grades 7-12.

Emphasizes planning; classroom management; use of instructional resources, and related technology. Requires practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**RDNG 406 Techniques and Procedures for Corrective and Remedial Reading (3)**

Enables students to understand the causes of reading disability and their impact upon reading performance. Emphasis is on the application of theory in developing competence in the use of procedures and materials for the diagnostic prescriptive teaching of reading. Requires practicum. Prereq.: RDNG 314 or RDNG 315.

**RDNG 419 Methods and Materials of Teaching Reading in Content Areas (3)**

Focuses on providing pre-service teachers with assistance in recognizing, diagnosing, and solving basic problems and questions relative to reading in their respective subject fields. Emphasizes the development of technical vocabulary and comprehension skills through a practicum approach. Requires practicum. Prereq.: RDNG 314 or RDNG 315. Field experience required.

**SPED 204 Introduction to Education of Exceptional Children (3)**

Studies the characteristics of exceptionality and their effect on how students learn. An overview of each area of exceptionality is included, as well as historical development, basic concepts, current issues and programs, and future trends in special education. Emphasizes critical issues related to schools, family and society, existing attitudinal barriers, and current methods of support (Formerly Survey of Exceptional Children). Field experience required.

**SPED 214 Field Experiences in Special Education I (3)**

Provides opportunities for students to observe and assist with school or institutional curricula and extra-curricular program activities in special education at elementary level. Requires lecture and 30-hour practicum.

**SPED 305 Introduction to Legal Issues in Special Education (3)**

Provides a study of national, state, and local laws, policies, and procedures affecting the education of exceptional children. Reviews rights of parents and children in the educational placement process. Prereq.: SPED 204 AND EDPY 244

**SPED 306 Behavior Management in the Classroom (3)**

Studies the behavior management techniques, which include explanation and implementation of rewards, behavior modification, performance contracting, life-space interviewing, expectancy communication, and surface management for changing child behavior in the classroom. Prereq.: SPED 204 AND EDPY 244.

**SPED 314 Field Experience in Special Education II (3)**

Provides opportunities for students to observe and assist with school or institution curricula and extra-curricula program activities in special education at the middle or secondary level. Requires lecture and 30-hour practicum.

**SPED 335 Special Topics (VC)**

Provides an opportunity for students to study a specific area of interest as related to exceptional children and youth. Emphasis on contemporary issues in special education. Course topics may be offered by other departments in the University.

**SPED 337 Understanding Exceptional Children and Youth (3)**

Focuses on the psychological manifestations of disabling conditions and how children, youth, and adults with disabilities react to societal norms. Prereq.: SPED 204.

**SPED 411 Development of Individualized Educational Programs - IEPs (3)**

Focuses on the development of Individualized Educational Programs (IEPs) for children and youth with special educational and behavioral needs. Emphasis also on how to implement and monitor IEPs. Prereq.: SPED 204; EDPY 300.

**SPED 435 Methods I: Teaching Math, Science, and Technology for Special Population (3)**

Focuses on current instructional strategies used to facilitate teaching in a special education environment. Emphasizes planning for teaching; effective utilization of instructional resources; evaluative devices; classroom management; and related technology. Includes lecture and practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**SPED 436 Methods II: Teaching Language Arts and Social Sciences for Special Populations (3)**

Focuses on current instructional strategies used to facilitate learning language arts, social studies, and creative arts in special education environments. Emphasizes planning for teaching, effective utilization of instructional resources, evaluative devices; classroom management; and related technology. Includes lecture and practicum. Prereq.: Admission to Teacher Education Program. Field experience required.

**SPED 454 Vocational Aspects of Disabilities (3)**

Focuses on transition from school to work for persons with disabilities. Discusses career awareness, exploration, and preparation concepts. Discusses pre-vocational, vocational, and work activities with emphasis on the relationship between disabilities and employment opportunities. Prereq.: SPED 306.

**SPED 474 Observation and Student Teaching in Special Education (Elementary Schools) (VC)**

Focuses on observation and full-time practical experiences in an elementary school setting under the guidance of a certified teacher and a University supervisor. Requires weekly professional development seminar. Prereq.: Clearance by major advisor and Coordinator of Field Services, Student Teaching, and Teacher Certification. Prereq SPED 214; SPED 314.

**SPED 475 Observation and Student Teaching in Special Education (Secondary Schools) (VC)**

Focuses on observation and full-time practical experiences in a secondary school setting under the guidance of a certified teacher and a University supervisor. Requires weekly professional development seminar. Prereq.: Clearance by major advisor and Office of Field Services, Student Teaching, and Teacher Certification. Prereq SPED 214; SPED 314.

**SPED 485 Assessment of Exceptional Children (3)**

Provides demonstrated competence in the development, selection, administration, and interpretation of formal and informal assessment techniques. Prereq.: SPED 204; EDPY 244.

**Graduate Course Descriptions**

**Introduction to Adult Education (3)**

Affords opportunities for students to identify, examine, understand, and evaluate the historical, sociological, psychological, and philosophical foundations of adult and continuing education. Examines different theories and concepts of adult learning, and the





role of selected agencies active in the field. Examines psychological principles and theories that influence educational processes.

**Adult Learner (3)**

Reviews in depth the current research and literature pertaining to the contemporary lifestyles, personal characteristics, and problems of the adult learner. Addresses various learning theories and the impact of stages of adult development on the learners. Examines effective communication skills with adult learners.

**Program Planning and Curriculum Development (3)**

Examines theories and practices of developing and implementing adult education programs. Includes development of curricula and materials specifically geared toward adult programs.

Prereq.:

**Techniques of Teaching Adults (3)**

Presents a survey of techniques and procedures used to facilitate learning with adult populations. Specific methods, materials, research, and use of technology to enhance instruction are explored. Emphasis on use of individualized and small group instructions. This course also addresses managing adult classes and developing effective communication skills in reaching and teaching adults.

Prereq.: 504, 514.

**Special Topics in Adult Education (VC)**

Provides an opportunity for students to study a specific area of interest as related to adult education. Emphasis on contemporary issues in adult education.

**Communication Skills in Adult Education (3)**

Designed to develop the students' communications skills with adults. Gives students an understanding of the adult learner and the methodology for organizing and presenting materials and information that are appropriate in addressing adults. Course covers information gathering, speech outlining, small group discussion, informative speaking, and persuasive speaking.

**RDNG 516 Teaching Reading to the Adult Learner (3)**

Focuses on providing theoretical and practical experience in identification of the specific needs of the adult learner, exploration and development of materials, and strategies for meeting the needs of adults at varying functional reading levels.

**SPED 504 Foundations of Special Education (3)**

Surveys the background and contemporary role of special education in both public and private sectors. Studies the characteristics of exceptionality and their effect on how students learn. Emphasis on inclusive education, learning disabilities, family involvement, gifted and talented, and related services for students with special needs. Emphasis on the intellectual, social, and emotional characteristics of special needs population. Six hour practicum required.

**SPED 505 Diagnostic and Prescriptive Teaching (3)**

Explores the methods of using diagnostic material in logical ways to prepare individual educational programs for meeting the needs of children with learning problems.

**SPED 515 Developing Individualized Educational Programs (IEPs) (3)**

Focuses on the development of individual education programs for children and youth with special educational and behavioral needs. Emphasis on how to develop, implement, and monitor IEPs.

**SPED 525 Teaching Adults with Learning Disabilities (3)**

Introduces students to appropriate strategies and techniques needed to teach adults with learning disabilities. Emphasis on helping adult learners choose, apply, and generalize previously learned information to new challenges in daily living, employment, training, participants to observe and assist with school curricula and

extracurricular program activities in special education. Requires practicum and lecture.

**SPED 535 Methods and Materials for Teaching Exceptional Children (3)**

Focuses on current instructional strategies used to facilitate learning by exceptional children. Emphasis planning for teaching effective utilization of instructional resources; evaluative devices; classroom management; and related technology for teaching specific content to the special needs learner. Practicum required.

**SPED 537 Psychology of Exceptional Children (3)**

Emphasizes the intellectual, social, and emotional characteristics of handicapped and gifted children.

**SPED 554 Vocational Aspects of Disabilities (3)**

Focuses on transition from school to work for persons with special needs. Discusses career awareness, exploration, and preparation concepts. Emphasis on pre-vocational, vocational and work activities as related to the relationship between disabilities and employment opportunities. Practicum required.

**SPED 557 Behavior and Classroom Management (3)**

Focuses on the behavior and instructional components of effective classroom management. Students gain skills in assessing behavior problems, planning, implementing, and evaluating interventions and strategies used for students with special needs from diverse backgrounds.

**SPED 585 Assessment of Exceptional Children (3)**

Discusses the principles and methods of psycho-educational testing and assessment. Requires demonstrated competence in the development, selection, administration, and interpretation of formal and informal tests and assessment instruments.

**SPED 588 Current Trends and Legal Issues in Special Education (3)**

Provides an in-depth examination and analysis of national, state, and local laws and policies that affect the education of exceptional children and youth. Student rights, records, and due-process issues are studied. Discussions focus on the historical and current legislation.

**SPED 589 Special Topics in Special Education (VC)**

Provides an opportunity for students to study a specific area of interest as related to exceptional children and youth. Emphasis on contemporary issues in special education.

**SPED 590 Research Seminar in Special Education (3)**

Provides an in-depth review of basic research design used in special education. Required of students who opt to write a thesis. Students are provided individualized assistance and guidance toward the completion of their research.

**SPED 591 Psychological and Behavior Characteristics of the Serious Emotionally Disturbed (3)**

Examines the nature and needs of individual with serious emotional disturbance. In-depth discussion of psychiatric diagnostic categories, psycho-social development, etiology, behavioral interventions, and educational services.

**SPED 592 Behavior Management for Children and Youth with Serious Emotional Disturbance (3)**

Focuses on current behavior management techniques and instructional interventions that are used to teach and modify the behavior of individuals with serious emotional disturbance. Students gain knowledge and practical skills in behavioral assessments that can be used to develop and manage student behavior in varied school situations.



**SPED 593 Educational Programming and Implementation for the Seriously Emotionally Disturbed (3)**

Involves theory and practice in planning and implementing educational programming for children and youth with learning disabilities. Emphasizes techniques for modifying curriculum and materials for individualized programming in basic academic and functional skills.

**SPED 594 Psychological and Behavioral Characteristics of Children and Youth with Special Learning Disabilities (3)**

Discusses the psychological, social, behavioral, and cognitive development and characteristics of individuals with learning disabilities. In-depth examination of neurological and developmental aspects of specific learning disabilities and includes discussion of etiological theories, educational services, and policy issues.

**SPED 595 Diagnostic Techniques and Intervention for Children and Youth with Specific Learning Disabilities (3)**

Focuses on current diagnostic techniques and instructional interventions that are used to identify and teach individuals with learning disabilities. Students gain knowledge and practical skills in administering and interpreting formal testing instruments and curriculum-based assessments to develop appropriate instructional interventions for individuals with specific learning disabilities.

**SPED 596 Educational Programming and Curriculum Modification in Basic Skills Instruction for the Specific Learning Disabled (3)**

Involves theory and practice in planning and implementing educational programming for children and youth with learning disabilities. Emphasizes techniques for modifying curriculum and materials for individualized programming in basic academic and functional skills.

**SPED 597 Internship in Special Education I (3)**

Provides a supervised teaching experience for students to apply academic work and teaching methods in educational settings appropriate to their professional interests. Students will complete a minimum of 250 clock hours in a non-categorical setting or a setting with children with serious emotional disturbance or specific learning disabilities.

**SPED 598 Internship in Special Education II (3)**

Provides a supervised teaching experience for students to apply academic work and teaching methods in educational settings appropriate to their professional interests. Students will complete a minimum of 250 clock hours in a non categorical setting or a setting with children with serious emotional disturbance or specific learning disabilities.

**SPED 679 Internship in Special Education (3)**

An on-site practicum experience under the supervision of a practicum coordinator.

**SPED 695 Independent Research Study (VC)**

Provides an opportunity for the student who has selected an area of specialization to engage in additional directed reading, discussion, and research. Prereq.: Consent of professor and approval of Department Chairperson.

**SPED 696 Thesis (3)**

Provides an opportunity for students to design a research study that includes literature review, data collection, analysis and interpretation of research findings, drawing conclusions, and making recommendations. Required of students who opt to write a thesis.

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**English**

**ENGL 213 Introduction to Critical Writing (3)**

Enables the student to write about literature through the study of four genres. Introduces critical terms, approaches, and methods. Prereq.: IGED 210.

**ENGL 215 Creative Writing (3)**

Introduces creative writing, including the short story, poetry, drama, and novel. Prereq.: ENGL 112.

**ENGL 216 Words in Context (3)**

Develops, through reading and writing, awareness of how differences in language use, form, and setting affect meaning; Assesses how context determines meaning of a passage. Prereq.: ENGL 210.

**ENGL 219 Advanced Writing (3)**

Focuses on advanced structural, rhetorical, and stylistic techniques in writing. Also emphasizes reading of selected texts. Prereq.: ENGL 210.

**ENGL 290 Topics in Literature (3)**

Offers in-depth, seminar-style exploration of literary topics that vary to accommodate faculty and student interest in language and literature. Prereq.: ENGL 112.

**ENGL 314 Structure of English (3)**

Analyzes the phonological, morphological, syntactic, and semantic structures of English using modern linguistic techniques. Emphasizes linguistic approaches to the study of grammar. Prereq.: ENGL 212.

**ENGL 315 History of the English Language (3)**

Analyzes the history and structure of Old, Middle, and Modern English, including dialects of Modern English. Emphasizes historical and cultural factors influencing linguistic development. Prereq.: ENGL 212.

**ENGL 316-Advanced Grammar (3)**

Presents the history of grammatical study and surveys modern grammar and current usage. Covers descriptive English grammar. Prereq.: ENGL 212.

**ENGL 330 British Literature I (3)**

Examines the main literary works and movements from *Beowulf* through the neo-classical period. Concentrates on the historical development of forms and modes and analyzes works by major authors.

**ENGL 331 British Literature II (3)**

Examines the main literary works and movements from the Romantic to the Modern period. Concentrates on the historical development of forms and modes; focuses on major authors, individually and in historical contexts. Prereq.: ENGL 330.

**ENGL 351 American Literature I (3)**

Surveys American literature from the seventeenth to the nineteenth century. Concentrates on major American writers.

**ENGL 352 American Literature II (3)**

Surveys American literature from the nineteenth century to the present. Emphasizes the major American writers of the modern period. Preq. ENGL 351.

**ENGL 354 African-American Literature**

Surveys African-American literature to the eighteenth century.

**ENGL 356 African Literature (3)**

Surveys the national literatures (in English and in English translation) of Africa. Examines prose models from classical Egypt to the post-independence period writers.

**ENGL 358 Caribbean Literature (3)**

Studies major works of poetry, fiction, and drama from the English, French, and Spanish Caribbean, by Césaire, Guillen, Walcott, Brathwaite, Naipaul, Lamming, Carpentier, Roumain, and others. Focuses on the theme of Caribbean identity.

**ENGL 359 Special Topics in Caribbean Literature (3)**



Focuses on some facet of Caribbean literature for a semester; for example, the Caribbean novel, the works of a single author, or a major intellectual movement.

**ENGL 437 Victorian Writers (3)**

Studies poetry and non-fictional prose from 1832 to the twentieth century. Emphasizes major Victorian poets and essayists.

**ENGL 438 English Novel (3)**

Studies the development of the novel from its beginning to the twentieth century. Emphasizes representative novels from Defoe to the present.

**439 Shakespeare (3)**

Studies selected plays (histories, comedies, and tragedies) and sonnets. Introduces conventions of the Elizabethan theater, relevant social history, and Shakespeare scholarship.

**ENGL 454 American Novel (3)**

Surveys the American novel. Focuses on major novelists from Brown to Faulkner.

**ENGL 455 African-American Fiction (3)**

Emphasizes critical analysis of major novels and selected short stories. Focuses on African-American writers since 1940.

**ENGL 456 African-American Poetry (3)** Studies poetry by African-American writers. Examines early poetry in America; also emphasizes major

**ENGL 467 Principles of Literary Criticism I (3)**

Analyzes literary and critical theory from the ancient to the eighteenth century.

**ENGL 468 Principles of Literary Criticism II(3)**

Studies modern theories of literary criticism. Focuses on various approaches to evaluating and critical analyzing literature by applying theory to selected literary texts.

**ENGL 470 Topics in Literature (3)**

Offers in-depth seminar-style exploration of topics, which vary to accommodate faculty and student interest in language and literature. Prereq.: ENGL 213.

**ENGL 495 Independent Study (3)**

Provides for in-depth study or project with the guidance of an instructor. Approval of the Department chair is required. Prereq.: Junior standing and 2.8 cumulative GPA.

## Visual Arts

**DANC 101 Modern Dance I (1)**

Introduces the basic principles of modern dance, which include gravity, posture, balance, gesture, centering, rhythm, spatial relationships, movement dynamics, and breathing. Exposes students to the historical background of modern dance and to dance performances by local and professional companies. Requires studio work and studio performance.

**DANC 102 Modern Dance II (1)**

Continues Modern Dance I. Emphasizes the development of body placement, movement dynamics, strength, flexibility, and endurance. Requires studio work and studio performance. Prereq.: Modern Dance I or permission of the instructor.

**DANC 110 Ballet I (1)**

Explores ballet as it relates to the human anatomy and dance history. Introduces basic ballet techniques.

**DANC 201 Modern Dance III (1)**

Emphasizes advanced dance principles and techniques. Prereq.: DANC 102.

**DANC 202 Modern Dance IV (1)**

Continues techniques learned in Advanced Modern Dance I. Prereq.: DANC 201 or permission of instructor.

**DANC 224 Jazz I (1)**

Explores jazz dance as it relates to the human anatomy, jazz music, and dance history. Introduces dance techniques necessary to perform jazz idioms.

**THEA 104Introduction of Theatre Arts (3)**

Studies theater as a medium transforming the script into theatrical production. Analysis of play structure and genres: tragedy, comedy, and melodrama. Includes reading of characteristic plays and critiquing of live theater.

**THEA 111Stagecraft I (3)**

Introduces students to technical theatre. Study includes the survey of tools, materials, basic construction, and painting techniques. Students create theatrical sets and properties. Instructor uses lecture laboratory format to combine theory with practical application.

**THEA 144Theatre Business Management (3)**

Examines problems and practices in American theater management, past and present. Study includes front house organization, fundraising, season scheduling, costs, promotion, and box office procedures. Introduces the concept of the backstage organization, with emphasis on the unction of the stage manager.

**THEA 231History of Theatre I (3)**

Studies representative pay scripts and the styles, conventions, and practices of the theaters for which they were written, from ritual origins through the Italian Renaissance. Discusses Yoruba ritual, Greek, Roman, Medieval, Asian, Italian Renaissance theater history, and scripts.

**THEA 232History of Theatre II**

**(3)**

Studies representative play scripts and the styles, conventions, and practices of the theaters for which they were written, from the late Renaissance through 19<sup>th</sup> Century Romanticism, Elizabethan, Spanish Renaissance, Restoration, 17<sup>th</sup> Century French, and 19<sup>th</sup> Century Romantic theater history and scripts. Prereq.: 231-01.

**THEA 261Acting I**

**(3)**

Examines the actors physicalizing of an idea without a written text. Focuses on sensory awareness, relaxation, and concentration. Emphasizes improvisation, spontaneous invention of dramatic situations, and characters that will hold the audience's attention. Explores the actor-audience relationship.

**THEA 262Acting II**

**(3)**

Provides a studio course in performing a written text: emphasizes basic acting techniques, playing intentions, objectives, situations, and characterization. Prereq.:THEA-261.

**THEA 264Creative Dramatics**

**(3)**

Teaches how to use improvisation and theater games to stimulate creative thinking and learning in children. Students will learn and apply classroom and theater techniques for groups of children or teenagers to help them express their own experiences in games and creative scenes.

**THEA 265Performance Workshop**

**(3)**

Introduces the process of live theatrical production, rehearsal and performance techniques. Requires performances of an acting role or completion of a production function in a University production. (Required of all theater majors. Majors must repeat for a maximum of three credits.)

**THEA 281Lighting I**

**(3)**

Introduces stage lighting,including the practical application of optical, electrical, and aesthetic principles of ligh ( light plot interpretation), Also discusses control board operations, selection and installation of simple sound equipment, set-up, editing, and operation of show tapes and maintenance of light and sound equipment.

**THEA 321Modern and Contemporary Theatre (3)**

Studies representative playscripts, styles, conventions, and practices of theaters for which the scripts were written, from Ibsen to the present day. Discusses realism, anti-realism, epic theater, absurdism,



and selected contemporary experimental theater formats and scripts.

**THEA 322 Theatre of the Black Experience (3)**

Studies the work of Black playwrights and the styles, conventions, and practices of the theaters for which these were created, from ancient oral tradition to the present.

**THEA 324 Fundamentals of Playwriting (3)**

Introduces writing for theater. Includes an analysis of playwriting in dramatic literature and writing exercises concentrating on specific techniques such as visualization of environment, behavioral study of character, the use of dialogue, action, and metaphor. Culminates in completion of a one-act play.

**THEA 325 Playwriting Seminar (3)**

Conceptualizes, through creative writing, subject matter capable of being developed into a major work. Writing will reflect complication, reversals, and a resolution evolving from motivated characterization. Allows classroom presentation of work in progress and a readers theater presentation of selected student scripts. Prereq.: THEA-324

**THEA 361 Acting III (3)**

Continues Acting II. Emphasizes integration of internal and external techniques of character development in longer scenes. Requires students to present a final acting project. Prereq.: THEA-262 or permission of instructor.

**THEA 364 Advanced Problems in Acting (3)**

Explores problems in acting presented through plays in non-realistic styles. Prereq.: THEA-361 and audition.

**THEA 266 Educational Theatre I (3)**

Focuses on methodology and practice of drama-in-education applied to multi-disciplinary learning within the first through sixth grade curricula. Students will be introduced to theme and story based improvisation, story dramatization, role play, and teacher-in-role strategies, and learn how to adapt activities for children with special needs. Curricula areas include language arts, social studies, science, and math, with additional focus on addressing social issues such as conflict resolution, bullying, and other pertinent issues. Emphasis will be placed on the design, structure, teaching, and evaluating drama lessons, which may include sessions with area schools.

**THEA 267 Educational Theatre II (3)**

This course focuses on methodology and practice of drama-in-education applied to multi-disciplinary learning within the seventh through twelfth grade curricula. Students will continue to study theme and story-based improvisation, role play, and teacher-in-role strategies, and learn how to adapt activities for youth with special needs within this age range. Curricula areas include language arts, literature, history, social studies, science, and math—with additional focus on addressing social issues such as conflict resolution, leadership development, and other pertinent issues. Emphasis will be placed on the design, structure, teaching, and evaluating drama lessons, which may include sessions with area schools.

**THEA 268 Theatre for Youth (3)**

Designed to help students gain "hands-on" experience in working with youth in a theater-in-education and drama-in-education canon. Students will experiment with ways in which to see alternatives and structure effective learning experiences and become critically acquainted with the teaching terrain of the drama-in-education practitioner.

**THEA 497 Special Topics in Drama (3)**

Explores how drama and theatre facilitates learning in educational, cultural, and community settings. Course involves the in-depth study of one topic. Special topics include Drama Therapy, Social Drama, Process Drama, Forum Theatre, Participation Theatre, Drama for Urban Youth, Theatre of the Oppressed, Drama for Special Populations, the Teaching Artist, Creative Drama in Alternative Spaces/Community Theatre such as . museums, parks, libraries, community, prisons, and recreation centers/camps. Examines the

key aspects of how a particular field developed through the work of prominent leaders and surveying the main concepts, structures, and conventions of the field. , Students will map out relationships between theories of dramatic art and general education principles, survey present practices and potentialities of educational drama, and investigate methods used at all levels of instruction. This class will provide the background for specific studies of the numerous aesthetic components of educational drama and theatre. Such a foundation provides the basis for the development of personal philosophies and practices.

**THEA 371 Directing I (3)**

Introduces methods of play directing. Explores techniques of script analysis, methods of organization, and principles of appropriate leadership for rehearsal and performance. Course requires a final project. Prereq.: THEA-262 or permission of instructor.

**THEA 372 Directing II (3)**

Continues Directing I with emphasis on directing one-act plays. Examines techniques in conceptualizing the script, auditioning, rehearsal planning, and coaching of actors. Provides an opportunity for students to develop several scenes and to select and produce a one-act play. Prereq.: THEA-371.

**THEA 495 Independent Study in Theatre (3)**

Instructs students in how to work independently on a supervised advanced project. Subject to approval of supervising faculty member. Prereq. 2.8 cumulative GPA, minimum of 60 semester hours, and permission of Department Chair.

Course Descriptions ARTS

**ARTS 101 Introduction to Drawing (3 credits)**

Analyzes and explores basic drawing techniques. Traditional media is used to create still life, landscape, and perspective drawings. Emphasis is on representational visual interpretation of forms in the environment through the use of contour line and various shading techniques. Studio course.

**ARTS 102 Figure Drawing (3 credits)**

Explores drawing through the study of the human figure using a variety of media. Covers portraiture, gestural studies, and working from plaster casts and from the live model. Prerequisite: ARTS 101 or permission of instructor. Studio course.

**ARTS 115 Visual Thinking (3 credits)**

Introduces the concept of visual thinking and the development of *visual literacy* as it applies to communication design and the fine arts. This is an idea-oriented course designed to help students solve visual and artistic problems through invention and interpretation. Emphasis is placed on imagination and experimentation with concepts and ideas, as well as exploring approaches to art and design. Value is placed both on individual problem solving as well as working in groups to produce creative work. Lecture course with studio projects required.

**ARTS 145 Basic Photography (3 credits)**

Introduces the use of black and white photography as both a graphics and fine arts medium. Explores the use of the adjustable camera, the development of the negative, and the production of the photographic print. Students study aspects of composition, lighting, camera settings, and dark room processing. A 35mm camera is required for the course. Studio course.

**ARTS 184 Fundamentals of Art Appreciation (3 credits)**

Presents basic tools for understanding and discussing visual expression from a variety of perspectives. Explores art and design theory, history, and media with reference to social context\*Writing Intensive lecture course which includes assigned readings and requires field trips.

**ARTS 206 Intermediate Photography (3 credits)**

Focuses on developing skills and artistic vision through creative photographic assignments. Students develop film and print photographs in a darkroom setting, and participate in critiques. This course develops knowledge of the aesthetics of fine art photography



while exploring techniques of camera operation, photographic chemistry, and film quality. Prerequisite: ARTS 145 or permission of the instructor.

**ARTS 208 Film Photography and Wet Processing (3 credits)**

Explores traditional and experimental darkroom developing techniques. Students explore the possibilities of darkroom wet processing and its effects using filters and various photographic papers. Prerequisite: ARTS 145 or permission of instructor. Studio course.

**ARTS 231 Introduction to Painting (3 credits)**

Introduces techniques and theory of working in oil, watercolor, gouache, and acrylic paints. Students explore a variety of techniques in creative painting. Covers representational painting, abstract approaches, and color theory. Prerequisite: ARTD 105, ARTS 101 or permission of instructor. Studio course.

**ARTS 240 Photojournalism (3 credits)**

Students will use the camera to create socially current images, as well as visual narratives documenting a variety of events and situations. Also, students will learn the essentials of how picture editing can support or help craft the story. Prerequisite: ARTS 145 or permission of instructor. Studio course.

**ARTS 241 Introduction to Printmaking (3 credits)**

Explores the fundamentals of fine art printmaking through a variety of techniques and media, with emphasis on relief and intaglio processes such as woodcut, linoleum cut, dry point, and calligraphy. Prerequisite: ARTD 105, ARTS 101, or permission of instructor. Studio course.

**ARTS 245 Visual Communication Photography (3 credits)**

Introduces photographic processes used in advertising, illustration, editorial and fashion photography. Emphasizes studio concepts in photography as a visual communication tool. Students learn the elements of small, medium, and large format camera work. Prerequisite: ARTS 145 or permission of instructor. Studio course.

**ARTS 247 Digital Photography (3 credits)**

Introduces the basic principles and concepts of digital photography, including composite imaging and digital darkroom techniques. Students learn to use the manual settings of a digital camera to create a variety of photographic effects such as black and white and color images using the digital camera. are introduced. Prerequisite: ARTS 145 or permission of instructor. Studio course.

**ARTS 251 Introduction to Sculpture (3 credits)**

Explores basic sculpture materials and methods. Students create original sculptural artworks. Examines additive and subtractive methods of sculpture as students learn the physical and aesthetic qualities of working three dimensionally. Focuses on representational and abstract forms. Includes studio intensive work, readings, and field trips. Involves use of mechanical equipment and power tools in the studio workspace. Prerequisite: ARTD 105, or permission of instructor. Studio course.

**ARTS 261 Introduction to Ceramics (3 credits)**

Introduces students to the practice of ceramics techniques. Students learn about the physical structure and aesthetic properties of ceramic art using three-dimensional building approaches. Focus is on both functional and decorative forms. Prerequisite: ARTD 105 or permission of instructor. Studio course.

**ARTS 280**

History of Surveys the development of photography from the inception of daguerreotypes through the development of digital image-making. Examines the impact of photography on culture by learning of the medium's influence on society and the arts. Course involves a substantial amount of independent reading and study.. Lecture course, field trips required.

**ARTS 281 World Art History: Ancient to Renaissance (3 credits)**

Chronological survey of art and visual expression across cultures. Emphasizes processes and purposes of creating and the role of the

creator in an historical and cultural context from prehistory to c. 1400. Lecture course requiring field trips.

**ARTS 282 World Art History II: Renaissance to Contemporary (3 credits)**

Continues the chronological survey of art and visual expression across cultures. Emphasizes processes and purposes of creating and the role of the creator in an historical and cultural context from c. 1400 to the present. Lecture course requiring field trips.

**ARTS 285 African-American Art History (3 credits)**

Provides an historical survey of African-American art and its global influence. Emphasizes social and historical context of art created by and for the African-American community. Lecture course requiring field trips.

**ARTS 288 Multicultural Traditions in American Art(3 credits)**

Examines the contributions of American artists from various cultural, ethnic, and social minority traditions that are often neglected in traditional art history courses. Prerequisite: none. Lecture course, field trips required.

**ARTS 294 Directed Studies (3 credits)**

Provides a structure for independent studio work at the sophomore level under the close supervision and direction of an art faculty member. Also provides independent studio time equal to the amount of time required for all three-credit studio courses. Requires weekly conferences with instructor. Prerequisite: ARTD 105, ARTS 101 and permission of Department Chair. Studio course.

**ARTS 294 Intermediate Photography: Portrait Photography (3 credits)**

Introduces o the fundamentals of creating portraits using the camera. Students learn the qualities of effective portrait compositions while working in a studio environment. Additional topics explored include lighting, posing, expression, make-up, wardrobe, and cropping images. Prerequisite: ARTS 145 or permission of the instructor. Studio course.

**ARTS 296 Intermediate Digital Photography (3 credits)**

Students utilize digital camera technology to produce a portfolio of works around a theme. Advanced digital darkroom techniques are explored. Explores black and white and color image creation as the student develops a unified body of work. Prerequisite: ARTS 247 or permission of the instructor. Studio course.

**ARTS 303 Animation I and Multimedia (3 credits)**

Introduces students to basic fundamentals of creating animation. Explores how to convert scripts to visuals, how to create storyboards, invent characters, and design backgrounds. Includes basic concepts such as designing key frames, developing character movement, and managing visual rhythm in animated film. Prerequisite: ARTS 101, GRCT 109, or permission of instructor. Digital studio course.

**ARTS 305 Advanced Figure Drawing (3 credits)**

Focuses on intensive study of the human figure, with particular emphasis upon muscular, skeletal, and surface anatomy. Students draw directly from draped and undraped figures, the skeletons, and plaster casts to create drawings as finished statements using the figure as the primary subject. Explores expressive drawing techniques using mixed media. Prerequisite: ARTS 102. Studio course.

**ARTS 331 Advanced Painting (3 credits)**

Continues exploration of techniques presented in Introduction to Painting with focus on study of a specific medium, including watercolor, oil, gouache, acrylic, or mixed media techniques. Prerequisite: ARTS 231 or permission of instructor. Studio course.

**ARTS 334 Portrait Painting (3 credits)**

Focuses on developing the skills of portrait painting through the study of the human form, facial expression, and variations in human physical appearance. Uses various painting media. Prerequisite: ARTS 102, ARTS 231, or permission of instructor. Studio course.

**ARTS 341 Advanced Printmaking (3 credits)**





Continues exploration of printmaking techniques with focus on study of a specific medium such as relief printing, collagraphy, or monoprinting. Students will develop a cohesive portfolio of works exploring a common theme and technique. Explores contemporary and experimental printmaking techniques, including mixed media and use of new technologies. Prerequisite: ARTS 241 or permission of instructor. Studio course.

**ARTS 350 Advertising and Publication Photography (3 credits)**

Involves an advanced study of the techniques and business practices for advertising and commercial photography. Topics include location lighting, location portraits, product and food photography, marketing, salesmanship, and working with commercial clients. Prerequisite: ARTS 294 or permission of instructor. Studio course.

**ARTS 354 Photographic Lighting (3 credits)**

Explores the use of contemporary photographic lighting theory using studio and natural lighting to achieve a variety of effects while generating successful photographic images. Prerequisite: ARTS 145 or permission of instructor. Studio course.

**ARTS 387 Contemporary World Art (3 credits)**

Examines visual expressions of the world, including painting, sculpture, architecture, and other forms created from the 20<sup>th</sup> Century to contemporary times presented in cultural and historical contexts. Prerequisite: none. Lecture course which involves field trips.

**ARTS 394 Directed Studies (3 credits)**

Provides an opportunity for independent studio work at the junior level under the close supervision and direction of an art faculty member. Independent studio time is equal to the amount required of all three-credit studio courses. Requires weekly conferences with instructor. Prerequisite: 200-level series of classes and permission of the Department Chair. Studio course.

**ARTS 394 Illustration Techniques (3 credits)**

Explores visual style, narrative, and communication in traditional and experimental media and techniques used for illustration. Students will develop compositional strategies for a variety of black-and-white and color illustrations, integrating text and image. Students work on concept development, gathering visual reference, and the use of craft in making intellectually and aesthetically pleasing images. Prerequisite: ARTS 101, ARTS 102, or permission of the instructor. Studio course.

**ARTS 409 Animation II (3 credits)**

Examines advanced animation techniques. Develops varieties in character design, body language, visual timing, scene editing, and project workflow. Students collaborate on animation in a group workshop setting. Prerequisite: ARTS 102, ARTS 303, or permission of instructor. Digital studio course.

**ARTS 411 Package and 3D Graphic Design (3 credits)**

Explores advanced three-dimensional concepts as applied to package design, exhibit design, and other 3-D commercial formats. Covers traditional and computer-aided design techniques, and reviews graphic design software, utilizing concepts of color, type, presentation methods, and spatial design. Prerequisite: ARTD 310 or permission of instructor. Digital studio course.

**ARTS 435 Mural Painting (3 credits)**

Covers the process of mural painting on interior and exterior surfaces and its use as a mode of personal expression and as a communication tool for the community. Students work both individually and in supervised groups to create finished mural artwork. Prerequisite: Introduction to Painting or permission of instructor. Studio course involves field trips and off-campus art making.

**ARTS 474 Advanced Photography (3 credits)**

This course is meant for students who have completed the majority of their photographic coursework and are ready to build a final portfolio of photographic work. Students will explore a subject, equipment and materials, and professional presentation of their

choice to produce a unified portfolio of their own images with which to represent their work as a professional photographer. Prerequisite: ARTS 206, ARTS 294; or permission of instructor. Studio course.

**ARTS 472 Senior Portfolio (3 credits)**

Senior capstone course for art, graphic design, and photography students. The creative output of each student is edited and revised for consideration in a final working portfolio. Students revise their résumés and develop a complete physical and digital portfolio of works to show to prospective clients and art buyers. Prerequisite: Senior standing. Studio course with writing involved.

**ARTS 477 Independent Study in Art (3 credits)**

Provides independent study under the direction and supervision of art faculty. Offers the advanced student an in-depth study of the area of specialization. Prerequisite: Completion of all 300-level studio courses in area of specialization and permission of Department Chair. Studio course.

**ARTS 478 Photography Portfolio Seminar (3 credits)**

Senior capstone course for photography students, who will revise their résumés and organize a complete portfolio of photographic works to show to prospective clients and art buyers. Focuses on preparing students for the photography market through portfolio preparation and presentation. Covers career guidelines, job pricing, and marketing tips. Requires portfolio review and a résumé. Prerequisite: Completion of all 300-level photography courses. Studio course.

**ARTS 480 Interdisciplinary Art I (3 credits)**

Explores the boundaries between art and community, including (but not limited to) art and anthropology, art and politics, art and sociology, and art and narrative. Students will learn about the integration of form and content while creating artwork using two-dimensional, three-dimensional, digital and time-based techniques. Prerequisite: completion of all 300-level studio and art history courses. Lecture course which requires field trips and studio projects.

**ARTS 481 Interdisciplinary Art II (3 credits)**

Exposes students to collaborative art processes, the exploration of cultural identity through art, and the making of art within contemporary social contexts. Focuses on gathering visual data, refining art content, and honing craftsmanship. Using various art media, students will perform media experiments and develop artwork in a studio setting as they integrate the procedures, materials and discourses of differing art disciplines. Prerequisite: completion of all 300-level studio and art history courses. Lecture course which requires field trips and studio projects.

**ARTS 490 Radical Image (3 credits)**

Exposes students to a history of the radical image through filmmaking, video arts, photography and digital art. Lectures explore theories relating to surrealism, hyperrealism, magical realism, and gender, identity, and race deconstruction. Lecture course, field trips required.

**ARTD 105 Foundations of Design (3 credits)**

Introduces students to the elements of visual art and design including the principles of aesthetics as they explore various solutions to design problems. Examines the design principles of line, shape, value, and texture, along with an introduction to color theory. Focuses on developing design skills as a means to communicate thoughts, ideas, and messages. Studio course.

**ARTD 113 Graphic Design I (3 credits)**

Examines composition, communication through word and image, typographic layout, and use of color in design. Explores how page layout and spatial organization form the foundation for solving graphic design challenges. Students apply basic design concepts to a variety of graphic formats to produce works of graphic design such as posters, business communications, and other related graphics, for presentation via print and digital media. Studio course. Prerequisite:



ARTD 105; GRCT 109 or permission of instructor. Digital studio course.

**ARTD 124 Computer Art (3 credits)**

Introduces the concept of creating and producing art using the computer as a creative tool. Explores digital design in a studio atmosphere where students learn digital image development and manipulation while exploring conceptual ideas and compositional strategies. Focuses on raster-based image programs such as Photoshop, and the creation of art by utilizing image-building software programs. Prerequisite: ARTD 105, GRCT 109. Digital studio course.

**ARTD 126 Typography (3 credits)**

Surveys the type used as a graphic design element. Explores typographic design through the creation of letterforms, the use of traditional and contemporary fonts, and the creation of effective page layouts using type. Combines technical aspects and rules of traditional typesetting with the aesthetics of creative typography. Prerequisite: ARTD 105, GRCT 109 or permission of instructor. Digital studio course.

**ARTD 201 Computer Illustration (3 credits)**

Focuses on developing vector-based drawing skills as students continue to develop conceptual solutions for effective illustration. Students learn the fundamentals of digital image building techniques that are applied in visual communications as well as how to use digital toolboxes to produce illustrations and logo design. Prerequisite: ARTD 105, GRCT 109. Digital studio course.

**ARTD 207 Web Design (3 credits)**

Students develop an understanding of web structures as they apply graphic design concepts to web page and site design, with the goal of creating a comprehensive, integrated web site. Explores the use of type design, page flow, image placement, and hyperlinks. Course utilizes web authoring software. Prerequisite: ARTD 112, GRCT 109, or permission of instructor. Digital studio course.

**ARTD 208 History of Graphic Design (3 credits)**

Surveys the development of the graphic arts (design, typography, illustration, photography, film, industrial design, architecture, and electronic media) in world culture through history. Explores visual communication from the earliest days of civilization through the rise of industrialism and into the current era. Course includes extensive independent reading and study Lecture course which require, field trips.

**ARTD 212 Graphic Design II (3 credits)**

Applies advanced design concepts to various communication formats. Students apply concepts to web, publication, and promotion graphics through assignments which address the development of visual identity systems packaging design, and advanced communication design problems. Prerequisite: ARTD 112 or permission of the instructor. Digital studio course.

**ARTD 213 Publication Design (3 credits)**

Explores copy fitting, text and image flow, and visual design identity. Covers concepts in publication design for circulated printed media including the core concepts of page layout for brochures, newsletters, magazines, annual reports, and other printed materials. Prerequisite: ARTD 112 or ARTD 126 or permission of instructor. Digital studio course.

**ARTD 275 Portfolio and Marketing Workshop (3 credits)**

Focuses on preparing students for the job market through portfolio preparation and presentation. Covers career guidelines, job pricing, and marketing tips. Students prepare portfolios by revising and reworking design projects, or creating new assignments. Requires portfolio review and résumé. Prerequisite: Sophomore standing. Studio course with writing involved.

**ARTD 411 Package and 3D Graphic Design (3 credits)**

Explores advanced three-dimensional concepts as applied to package design, exhibit design, and other 3-D commercial formats. Covers traditional and computer-aided design techniques, and

reviews graphic design software, utilizing concepts of color, type, presentation methods, and spatial design. Prerequisite: ARTD 212 or permission of instructor. Digital studio course.

**ARTD 494 Graphic Design Practicum (3 credits)**

Prepares students for the professional graphic design field by providing assignments for a local client. Students will explore collaboration with an art director and other designers while completing group projects. In a design studio environment, students will respond to client concerns, deadlines, and project revisions. Also, they may explore intern/apprenticeship experiences with local design studios for the semester to gain first-hand experience in the graphic design field. Prerequisite: ARTD 212 or permission of instructor. Studio course.

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**GRAPHIC COMMUNICATIONS**

**GRCM 301 Cost Estimating (2)**

Examines the principles and procedures for estimating the cost of various stages of the print, design and related publishing processes. Students analyze written contract specifications, determine best planning methods for production, evaluate the costs of materials and outside services, and determine productive time. Also, students learn how to calculate hourly costs and hourly productive rates, and review profit margins and pricing practices in the industry. Lec. 3 hrs., Prereq.: GRCT 214/215.

**GRCM 303 Cost Estimating Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCM 301. Lab. 2 hrs, Co-req.: GRCM 301.

**GRCM 305 Statistical Quality Control (2)**

Introduces applied statistics and instruments used in data collection for quality control processes in the graphic communications industry. Explores basic descriptive and applied statistical techniques used in quality control and the instruments used in paper testing, ink testing, color analysis, and ink film control. Emphasis will be placed on evaluating data in accordance with the systems approach to quality control. Lec. 3 hrs. Prereq.: Junior standing or permission of the instructor.

**GRCM 306 Statistical Quality Control Lab (1)**

Applied experience in a laboratory setting to be taken concurrently with GRCM 305. Lab 2 hrs., Co-req.: GRCM 305.

**GRCM 307 Color Management (2)**

Examines concepts related to the theory of color, its perception, measurement and specification. Introduces a variety of topics, including the creation and use of color profiles. Examines how densitometers, colorimeters and spectrophotometers are utilized in conjunction with a number of software programs to help measure, specify, and control color, from "soft proofing," to producing color separations. Also discusses issues associated with ink film control, the fingerprinting of printing presses, along with color standards such as SWOP, GRACOL and SNAP. Lec. 2 hrs., Co-req.: GRCM 308

**GRCM 308 Color Management Lab (1)**

Applied experience in a laboratory setting to be taken concurrently with GRCM 307. Lab 3 hrs., Co-req.: GRCM 307.

**GRCM 309 Digital Imaging II (2)**

Examines Adobe Photoshop course using advanced digital imaging techniques. Covers advanced masking techniques, compositing images, advanced color correction and retouching photographs. Students will use advanced masking techniques with advanced color correction to process images to meet the needs of the graphic communications industry. Lec. 2 hrs., Prereq.: GRCT 113, GRCT 214 or with permission of instructor.

**GRCM 310 Digital Imaging II Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCT 216. Lab. 3 hrs, Co-req.: GRCM 309



### **GRCM 311 Graphics Management (3)**

Introduces graphics to applied management. Examines various topics including quality control, cost factors, human resource issues, government regulations, and other managerial and financial techniques. Focuses on production, workflow, and the various stages of graphic communications, freelance design, and e-commerce. Students learn basic applied concepts of contracting and specifications writing. This lecture-oriented course requires that students write a business plan. Lec. 3 hrs., Prereq.: Sophomore standing.

### **GRCM 325 Elements of Production Management (3)**

Course continues the study of the production management functions covered in GRCM 311. Stresses the theory, practices, and application of four subject areas which include: ; methods of engineering measurement and analysis, systems concepts in the Graphic Communications industry, operations planning and control, and design of printing processes. Emphasizes cost saving techniques. Primarily lecture-oriented. This course involves technical report writing and case study methods. Lec. 3 hrs., Prereq.: Junior Standing, or permission of the instructor.

### **GRCM 407 Production of Book Publishing (3)**

Introduces the processes, procedures, production and management issues related to book production. Lec. 3 hrs, Prereq.: Permission of the Instructor. Junior standing or permission of the instructor.

### **GRCM 409 Ink and Substrates (3)**

Examines the theory associated with the manufacture and production of ink and various substrates and the products' importance in the Graphic Communications industry. Lec. 3 hrs., Prereq.: Junior standing or permission of the instructor.

### **GRCM 414 Design to Print Practicum II (3)**

Examines a design-to-print environment where students work with clients, produce functional designs, make production decisions, and proceed to output and produce actual production work utilizing various output devices including wide format, direct to plate and direct to press. Lab. 6 hrs., Prereq.: GRCM 214 Design to Print Practicum I or with Permission of Instructor

### **GRCM 484 Recent Technological Development (3)**

A special topics class designed to teach materials associated with innovations in the Graphic Communications Industry. Lec. 3 hrs., Prereq.: Senior Standing, or permission of the instructor.

### **GRCM 495 Directed Independent Study (3)**

With the approval of the department chairperson and under the direction of a member of the Graphic Communications faculty, the student will select a specific problem or subject in management, technology, or multi media/web design and study it in-depth. A formal plan of study is required. Prereq.: Junior standing.

## **GRAPHIC COMMUNICATIONS TECHNOLOGY**

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### **GRCT 102 Digital Typography (3)**

Addresses the concepts, techniques, and skills needed to understand and utilize type as a typographic medium for design and print. Lec. 2 hrs.

### **GRCT 104 Digital Typography Lab (1)**

Applied experiences in laboratory setting to be taken concurrently with GRCT 102. Lab 3 hrs, Co-req.: GRCT 102.

### **GRCT 105 Introduction to Graphic Communications (2)**

Designed as an overview course for students before taking other specialized courses. Introduces students to opportunities available in the Graphic Communications industry in addition to the various printing and publishing processes. Lec. 2 hrs.

### **GRCT 106 Introduction to Graphic Communications Lab (1)**

Applied experiences in laboratory setting to be taken concurrently with GRCT 105. Lab. 3 hrs, Co-req.: GRCT 105.

### **GRCT 107 Desktop Publishing (2)**

Introduces students to the basic fundamentals of desktop publishing using page layout software. Topics include basic page formatting, composition, proofreading, and layout skills in combination with the use of peripheral hardware, such as scanners, printers and digital storage devices. Discusses font management, color models, graphic formats, use of stock photography, and other related topics using tutorials and problem-solving techniques as primary methods of instruction are also discussed. Lec. 2 hrs.

### **GRCT 108 Desktop Publishing Lab (1)**

Applied experiences in laboratory setting to be taken concurrently with GRCT 207. Lab. 3 hrs, Co-req.: GRCT 207.

### **GRCT 109 Digital Applications (3)**

Introduces students to a series of digital applications used in the graphic communications, design and publishing fields: Adobe Photoshop, Adobe Illustrator and QuarkXPress. Provides beginning students with the software and computer skills needed for more advanced classes in the curriculum. Lab. 6 hrs. Studio course.

### **GRCT 111 Digital Assembly (2)**

Introduction to an area of print production that involves the process of preparing digital files for output to film, plate, or direct to press in a pre-imposed format. Discusses signature and bookwork, folding techniques, the use of binder dummies, sheet size calculations, along with trim and press related decision-making. Employs digital imposition and image trapping related software programs. Lec. 2hrs.

### **GRCT 112 Digital Assembly Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with Digital Assembly (GRCT 111). Lab. 3hrs, Co-req.: GRCT 111.

### **GRCT 113 Digital Imaging (2)**

Introduces Photoshop as an image editing tool. Covers methods used to manipulate photographs and graphic attributes, including color, contrast, and other digital darkroom techniques. Includes photo retouching, use of filters, duotones, color, scanning, masking and scaling. Addresses file formats, size and resolution factors and focuses on both web and traditional publishing issues. Course uses lectures to transmit relevant concepts and theory and laboratories to learn techniques using Photoshop as a creative tool for problem solving. Lec. 2 hrs.

### **GRCT 114 Digital Imaging Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCT 113. Lab. 3hrs, Co-req.: GRCT 113.

### **GRCT 135 Basic Offset Press Operations (2)**

Introduces the fundamentals of offset press concepts as these relate to setting up and running small to medium sheet-fed offset equipment. Also introduces concepts relating to web offset, ink, paper and general press problems. Combines theory and problem solving with a "hands on" approach to learning. Lec. 2 hrs.

### **GRCT 136 Basic Offset Press Lab (1)**

Applied experiences in a laboratory setting to be taken with Basic Offset Press Operation GRCT 135. Lab. 3 hrs

### **GRCT 204 Finishing Operations Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with Finishing Operations GRCT 205. Lab. 3 hrs

### **GRCT 205 Finishing Operations (2)**

Provides a basic understanding of a number of topics involving paper and its manufacture, its properties and its relationship to print, and post press production. Emphasizes basic paper terms, paper classifications, basic and standard sizes, weights and general mathematical concepts needed for determining paper requirements. Also discusses the paper pricing catalog, ordering paper, and understanding mailing operations and postal regulations. Includes problem-solving issues in relationship to time required to perform various operations to complete the job. Lec. 2 hrs. Prereq.: GRCT 111.





**GRCT 208 Advanced Desktop Publishing (3)**

Course examines issues relating to styles sheets, web based publishing, large documents as well as issues associated with the preparation of files for digital output would all be discussed. Uses professional page layout software and emphasizes creative design. Lec. 2 hrs, Prereq.: GRCT 107, GRCT 108.

**GRCT 209 Graphics Management (3)**

Introduces graphics to applied management. Student learning focuses on production, workflow, and the various stages of graphic communications, freelance design, and e-commerce. Various topics include quality control, cost factors, human resource issues, government regulations, and other managerial and financial techniques. Students learn basic applied concepts of contracting and specifications writing. The course requires writing a business plan and is primarily lecture-oriented. Lec. 3 hrs., Prereq.: Sophomore standing.

**GRCT 210 Color Management (2)**

A course that deals with concepts related to the theory of color, its perception, measurement and specification. A host of topics, including the creation and use of color profiles, color working spaces, color gamut's, and color sync in various software applications will all be introduced. Densitometers, colorimeters and spectrophotometers are utilized in conjunction with a number of software programs to help measure, specify, and control color, from "soft proofing," to producing color separations. Issues associated with ink film control, the fingerprinting of printing presses, along with color standards such as SWOP, GRACOL and SNAP will all be introduced. Lec. 2 hrs., Co-req.: GRCT 211

**GRCT 211 Color Management Lab (1)**

Applied experience in a laboratory setting to be taken concurrently with GRCT 210. Lab 3 hrs., Co-req.: GRCT 210.

**GRCT 214 Design to Print Practicum I (2)**

Introduces the concepts and skill sets necessary to produce functional designs for digital output and print production. Students learn theoretical as well as production skills relating to prepress, digital imposition, preflighting and digital output of files to various output devices including direct to plate, direct to press and wide-format ink jet printers. Lec. 2 hrs, Prereq.: 1101 105; GRCT 107/108; GRCT 113/114; 1101 115 or with permission of the Instructor.

**GRCT 215 Design to Print Practicum II Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCT 214 Lab. 3 hrs, Co-req.: GRCT 214.

GRCT 217 Offset Examines the theory, techniques, and issues associated with printing multi-color and full color work. Emphasizes how to run critical color work on sheet-fed, offset press equipment. Students refine the skills learned in previous press classes, and develop additional skills involving press operations. Lec. 3 hrs, Prereq.: GRCT 235.

**GRCT 219 Offset Color Printing Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCT 217 Lab. 3 hrs, Co-req.: GRCT 217.

**GRCT 225 Scanning and Computer Imaging (2)**

Applies advanced theory and techniques to traditional and electronic (digital) publishing materials. Continues the digital imaging course, and is intended for students with significant prior experience using image manipulation software such as Adobe Photoshop. Students review issues involved with desktop scanning technology as well as high end scanning devices. And work with a variety of image requirements and outputs to various proofing media. Lec. 2 hrs., Prereq.: GRCT 113, or permission of the instructor.

**GRCT 226 Scanning and Computer Imaging Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCT 225. Lab. 3 hrs, Co-req.: GRCT 225.

**GRCT 228 Advanced Desktop Publishing Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCT 208. Lab. 3 hrs, Co-req.: GRCT 208.

**GRCT 235 Advanced Offset Press Operation (2)**

Demonstrates how to run a basic line and halftone work on single color press equipment. Emphasizes press operations which require students to run and submit various projects for evaluation. Introduces students to lithographic plates and ink as related to offset press, offset press issues, multi-color sheet-fed, and offset web press concepts. Lec. 2 hrs. Prereq.: GRCT 135.

**GRCT 236 Advanced Offset Press Operation Lab (1)**

Applied experiences in a laboratory setting to be taken concurrently with GRCT 235. Lab. 3 hrs, Co-req.: GRCT 235.

**GRCT 290 Seminar-Practicum (4)**

Explores a simulated production atmosphere that will prepare the student for future occupations within the multi-faceted graphic arts industry. Student do production work while role-playing the position of management within the organization. Incorporates all previous knowledge acquired by the student in a summary or capstone activity. The class meets for 8 hrs. per week. Lab. 8 hrs., Prereq.: Sophomore standing.

**GRCT 295 Directed Independent Study (3)**

With the approval of the department chairperson and under the direction of a member of the Graphic Communications faculty, students select a specific issue or subject in technology or multi media/web design and study it in-depth. Requires a plan of study. Prereq.: Sophomore standing.

**Music**

**MUSC- 003 Introduction to Jazz Improvisation (1)**

Focuses on the fundamentals of jazz improvisation, nomenclature, chord construction, scale construction, analytical listening, and the application to performance. Provides fundamental exercises in improvisation. Prepares students for acceptance into Jazz Improvisation I. Course may be repeated. Prereq.: Audition.

**MUSC- 005 Fundamentals of Music Theory (2)**

Provides background information and skills necessary for the advanced study of music. Satisfies requirement for music majors who do not pass the placement examination in music theory to gain admittance to MUSC- 100, MUSC- 102. Also open to non-majors.

**MUSC- 010 Keyboard Group Instruction (1)**

Provides group instruction for non-majors or students needing to be prepared for acceptance into 100-level applied keyboard classes.

**MUSC- 020 Voice Group Instruction (1)**

Provides group instruction for non-majors or students needing preparation for acceptance into 100-level applied vocal classes. Students are encouraged to enroll concurrently in either MUSC- 005 or MUSC- 010.

**MUSC- 025 UDC Chorale(1)**

Develops musicianship and vocal skills through the study and performance of choral literature of various styles and periods. Satisfies elective course for general student body and a required course for voice majors. Prereq.: Audition.

**MUSC- 026 The Voices (1)**

Develops musicianship and vocal skills through the study and performance of gospel music literature. Prereq.: Audition.

**MUSC- 027 Chamber Singers (1)**

Provides an opportunity for students to prepare and perform chamber works for various combinations of voices and periods of music. Allows public performances. Prereq.: Audition.

**MUSC- 028 Vocal Workshop (2)**

Prepares students to study and perform various vocal ensemble media, including oratorio, opera, musicals, and other genres. Prereq.: Audition.

**MUSC- 033 Small Jazz Ensemble (1)**

Studies and performs music in the jazz idiom through small jazz ensembles. Provides instruction to qualified students with demonstrated performance capabilities. Prereq.: Audition.



**MUSC- 035 Woodwind Ensemble (1)**

Prepares students to study and perform representative literature of various periods and styles for woodwind instruments. Allows public performances. Prereq.: Audition.

**MUSC- 045 Brass and Percussion Ensemble (1)**

Prepares students to study and perform representative literature for brass and percussion instruments. Allows students to perform for the public. Prereq.: Audition.

**MUSC- 055 Symphonic Ensemble for Strings (1)**

Provides rehearsal and performance literature, including original works from the Baroque through the Contemporary period. Allows for public performances for the University-wide and community service organizations. Prereq.: Audition.

**MUSC- 070 Instrumental Group Instruction (1)**

Provides group instruction for non-majors or students needing preparation for acceptance into 100-level applied instrumental classes. Students may select instruction on a single woodwind, brass, string, or percussion instrument.

**MUSC- 085 UDC Pep Band (1)**

Emphasizes selected literature appropriate for a variety of activities, including sports events and other University functions. Is open to all university students. Prereq.: Audition.

**MUSC- 086 Jazz Lab Band (1)**

Prepares students to study and perform music in the jazz idiom through a Big Band ensemble. Provides instruction to qualified students with demonstrated performance capabilities. Prereq.: Audition.

**MUSC- 087 Chamber Ensemble (1)**

Provides experience in chamber ensemble performance and reacquaints the student with a knowledge of literature for the respective genre. Allows public performances. Prereq.: Audition.

**MUSC- 088 UDC Marching Band (1)**

Develops performance skills through the study of a variety of music styles and periods. Requires mandatory performance for appropriate University functions. Prereq.: Audition. (Open to all University students.)

**MUSC- 089 UDC Concert Band (1)**

Focuses on developing performance skills through the study of a variety of music styles and periods. Requires mandatory performance for appropriate university functions. Prereq.: Audition. Open to all university students.

**MUSC- 100 Materials of Music I (3)**

Prepares students to study harmony and melody in the diatonic style, focusing on concepts of intervals, scales, melodic form, four-part harmony, and contrapuntal writing. Emphasizes analysis, keyboard application, written examples, and exercises. Prereq.: MUSC- 005 or placement exam in music theory. Co-req.: MUSC- 102.

**MUSC- 101 Materials of Music II (3)**

Continues concepts addressed in Music I. Prereq.: MUSC- 100. Co-req.: MUSC- 103.

**MUSC- 102 Ear Training and Sight Singing I (2)**

Applies concepts studied in Materials of Music I to the keyboard and to the skills of ear training and sight singing. Teaches melodic and simple harmonic dictation. Prereq.: MUSC- 005 or placement exam in music theory. Co-req.: MUSC- 100.

**MUSC- 103 Ear Training and Sight Singing II (2)**

Continues Ear Training and Sight Singing I. Prereq.: MUSC- 102. Co-req.: MUSC- 101.

**MUSC- 105 Music Appreciation (3)**

Designed to increase appreciation and understanding of music in the Western classical tradition. Requires attendance at concerts outside of UDC.

**MUSC- 106 History of African American Music (3)**

Explores the roots and influence of African and early African-American contributions up to the present day. Focuses on traditional

music, including folk songs, jazz, sonatas, and symphonies, of Black composers and performers, as compared to existing Western forms.

**MUSC- 107 Jazz History (3)**

Surveys the musical and historical development of jazz, from the early roots to the present day styles.

**MUSC- 115 Applied Major Keyboard (2)**

Two-semester course designed for piano majors only, course provides individually arranged lessons featuring the prescribed literature from various periods of music. Examines issues of technique and performance. Requires recital performance. Allows substitution of a master class for the first semester freshman. Prereq.: Audition and two semesters.

**MUSC- 116 Applied Minor Keyboard (1)**

Two-semester course offers individually arranged and/or group lessons featuring, prescribed literature from all periods. Addresses techniques and performance issues. Encourages recital performance. Prereq.: Audition.

**MUSC- 119 Piano-Sight Reading (1)**

Offers step-by-step approach to sight-reading techniques for the piano major. Prereq.: Piano majors or permission of instructor.

**MUSC- 125 Applied Major Voice (2)**

Designed exclusively for voice majors, course provides individually arranged lessons featuring prescribed literature from various periods of music. Addresses issues of technique and performance. Requires recital performance. Allows substitution of a master for the first-semester freshman. Requires two semesters. Prereq.: Audition.

**MUSC- 126 Applied Minor Voice (1)**

Two-semester course provides individually arranged lessons, featuring prescribed literature from fall periods. Addresses techniques and performance issues. Encourages recital performance. Prereq.: Audition.

**MUSC- 130 Jazz Improvisation I (1)**

Two-semester course provides training in the applying improvisational techniques encompassing all standard forms and styles in the jazz idiom. Allows a student in a small group to apply the techniques and approaches discussed in class. Prereq.: Audition.

**MUSC- 135 Applied Major Instrument (2)**

Two-semester course designed for instrumental majors only. Provides individually arranged woodwind, brass, string, or percussion lessons featuring prescribed literature of various periods of music. Addresses issue of technique and performance in the course. Requires recital performance. Allows substitution of a master class for the first semester freshman. Prereq.: Audition.

**MUSC- 136 Applied Minor Instrument (1)**

Two-semester course provides individually arranged woodwind, brass, string, or percussion lessons featuring prescribed literature from various periods of music. Addresses issues of technique and performance. Encourages recital performance. Prereq.: Audition.

**MUSC- 181 Gospel Music Improvisation I (1)**

Two-semester course examines improvisation techniques basic to the study of performance in Black American gospel music. Emphasizes replication of standard improvisatory patterns. Prereq.: Audition.

**MUSC- 200 Materials of Music III (3)**

Explores harmony and melody in the chromatic style, including modulation as a formal procedure. Introduces harmonic practices and analytical systems of the 20th Century. Prereq.: MUSC- 101. Co-req.: MUSC- 202.

**MUSC- 201 Materials of Music IV (3)**

Continues Materials of Music III. Prereq.: MUSC- 200. Co-req.: MUSC- 203.

**MUSC- 202 Ear Training and Sight Singing III (2)**

Applies materials studied concurrently in Materials of Music III to the keyboard and to the skills of ear-training and sight-singing. Emphasizes melodic and harmonic dictation. Prereq.: MUSC- 103. Co-req.: MUSC- 200.



**MUSC- 203 Ear Training and Sight Singing IV (2)**

Continues Ear Training and Sight Singing III. Prereq.: MUSC- 202. Coreq.: MUSC- 201.

**MUSC- 210 Directed Studies (VC)**

Offers opportunities for supervised independent study. Prereq.: Permission of Program/Area faculty.

**MUSC- 215 Applied Major Keyboard (2)**

Two-semester course which continues Applied Major Keyboard. Requires recital performances. Prereq.: Two semesters of MUSC- 115.

**MUSC- 216 Applied Minor Keyboard (1)**

Two-semester course which continues Applied Minor Keyboard. Prereq.: Two semesters of MUSC- 116.

**MUSC- 225 Applied Major Voice (2)**

Two-semester course which continues Applied Major Voice. Requires recital performance. Prereq.: Two semesters of MUSC- 125.

**MUSC- 226 Applied Minor Voice (1)**

Continues Applied Minor Voice. Requires two semesters. Prereq.: Two semesters of MUSC- 126.

**MUSC- 230 Jazz Improvisation II (1)**

Continues Jazz Improvisation I. Requires two semesters. Prereq.: MUSC- 130.

**MUSC- 235 Applied Major Instrument (2)**

Two-semester course which continues Applied Major Instrument. Requires recital performance.. Prereq.: Two semesters of MUSC- 135.

**MUSC- 236 Applied Minor Instrument (1)**

Two-semester course which continues Applied Minor Instrument. Requires recital performance.. Prereq.: Two semesters of MUSC- 135.

**MUSC- 240 String Methods (2)**

Introduces and analyzes common string method publications and identification of instructional objectives based on the approaches. Includes practical application of string methodological techniques and lessons in the playing of the violin, viola, violoncello, double-bass, and harp. Prereq.: Sophomore standing in music.

**MUSC- 260 German Vocal Literature (2)**

Surveys vocal literature of primarily eighteenth and nineteenth century Germany. Studies various techniques of interpretation and presentation as a basis for artistic performance and comprehensive teaching. Prereq.: MUSC- 114.

**MUSC- 270 Computer Applications to Music I (3)**

Acquaints students with basic materials and techniques of a computer-assisted workstation and applications for music composition, performance, recording, and music publishing. Prereq.: Sophomore standing in music.

**MUSC- 271 Computer Applications to Music II (3)**

Continues Computer Applications to Music I with an emphasis on individually assigned projects. Prereq.: MUSC- 270.

**MUSC- 275 Dominant Trends in Music Education (2)**

Surveys philosophies, materials, methods, and approaches of Suzuki, Orff, Kodaly, Caribou-Cone, Montessori, Dalcroze, and others. Introduces basic approaches to electronic music on the computer. Studies and discusses the implementation in methodology to public school music. Prereq.: Sophomore standing in music.

**MUSC- 281 Gospel Music Improvisation II (1)**

Continues Gospel Improvisation I. Prereq.: Two semesters of MUSC- 181.

**MUSC- 285 Business of Music (3)**

Acquaints the student with every aspect of the music business and provides a background study into the related areas of the music industry and the institutions through which it operates. Includes a guest lecturer series which brings industry professionals to discuss a variety of topics, including careers in the music business, publishing, operation of a record label, promotions, negotiations of a record deal, and independent record distribution.

**MUSC- 290 Keyboard Harmony I (1)**

Teaches practical skills at the keyboard in melodic harmonization, transposition, chord movement and voicing, figured bass realization, accompanying skills to instrumental and vocal ensembles, and creative improvisation. Prereq.: Two semesters of MUSC- 215 or MUSC- 216.

**MUSC- 291 Keyboard Harmony II (1)**

Continues Keyboard Harmony I. Prereq.: MUSC- 290.

MUSC- 290 Explores history, literature, performance practices, and compositional styles of music from antiquity to 1750. Discusses the relationship between music and parallel movements in various areas. Involves recorded listening and score analyses. Prereq.: Junior standing or permission of instructor.

**MUSC- 301 History of Western Music II (3)**

Studies history, literature, performance practices, and compositional styles of music from 1750 to present. Discusses the relationship between music and parallel movements in various areas. Involves listening to recorded music and score analysis. Prereq.: MUSC- 300.

**MUSC- 307 Vocal Arranging (2)**

Examines techniques of scoring for vocal ensembles of specific ages, abilities, and sizes. Develops arrangements, from simple unaccompanied unison songs to more complex accompanied writing, with emphasis on stylistic and constructional features unique to particular kinds of music. Prereq.: MUSC- 201, MUSC- 203.

**MUSC- 315 Applied Major Keyboard (2)**

Two-semester course which continues Applied Major Keyboard. Prereq.: Two semesters of MUSC- 215.

**MUSC- 318 Ensemble Accompanying (2)**

Explores fundamental techniques of accompanying solo voice or instruments and training accompanying and chamber music performance skills. Provides instruction for students who will be coached in various historical styles and periods. Requires one student recital or master class performance. Prereq.: MUSC- 115 or permission of instructor.

**MUSC- 325 Applied Major Voice (2)**

Two-semester course that continues Applied Major Voice. Recital performance required each semester. Jury required each semester. Prereq.: Two semesters of MUSC- 225.

**MUSC- 330 Jazz Improvisation III (1)**

Continues Jazz Improvisation II. Prereq.: Two semesters of MUSC- 230.

**MUSC- 331 Jazz Arranging I (2)**

Examines arranging for ensembles of varying sizes and instrumentation. Analyzes representative works and acquaintance with Fundamentals of Orchestration. Prereq.: Junior standing in music-jazz studies or permission of instructor.

**MUSC- 332 Jazz Arranging II (2)**

Continues Jazz Arranging I. Prereq.: MUSC- 331.

**MUSC- 335 Applied Major Instrument (2)**

Two-semester course that continues Applied Major Instrument. Recital performance required. Prereq.: Two semesters of MUSC- 235.

MUSC- 338 Woodwind Methods to teach and play woodwind instruments. Prereq.: Junior standing in music.

**MUSC- 348 Brass Methods (2)**

Introduces methods and materials used to teach and play of brass instruments. Prereq.: Junior standing in music.

**MUSC- 360 French Vocal Literature (2)**

Surveys French vocal literature of the nineteenth and twentieth century's. Discusses techniques of interpretation and presentation for performance and studio teaching purposes.

**MUSC- 361 Opera Workshop (1)**

Introduces and exposes the vocal performance major to the art of singing and acting via study and practical experience. Includes body movement instruction for the stage, study in interpretation and characterization, and a study of selected operas. Prereq.: MUSC- 100, MUSC- 225.



**MUSC- 368 Percussion-Guitar Methods (2)**

Introduces methods and materials used in the teaching and playing of percussion instruments and the guitar. Prereq.: Junior standing in music.

**MUSC- 370 Foundations of Teaching Band & Orchestral Instruments (3)**

Designed for Music Education, Vocal and Keyboard-Vocal Option majors only, surveys methods and materials on band and orchestral instruments in the field of school music and how these are applied in performance. Prereq.: Junior standing in music.

**MUSC- 372 Choral Conducting (3)**

Introduces choral conducting techniques, basic concepts of choral tone, diction in choral singing, rehearsal techniques, basic elements of musical style and interpretation, and representative choral literature. Prereq.: Junior standing in music.

**MUSC- 374 Instrumental Conducting (3)**

Concentrates on applied baton technique. Discusses representative literature, which includes school music materials. Concentrates on interpretation of style. Prereq.: Junior standing in music.

**MUSC- 379 Teaching/Administration of Instrumental Music in Public Schools (3)**

Discusses routine issues involved in the administering and teaching instrumental music in public schools for human and public relations, personal contacts, and curriculum. Requires practicum experiences. Prereq.: Junior standing in music education.

**MUSC- 381 Gospel Music Improvisation III (1)**

Continues Gospel Music Improvisation II. Prereq.: Two semesters of MUSC- 281.

**MUSC- 382 Gospel Music Songwriting and Arranging I (2)**

Examines techniques of scoring, voicing, and designing appropriate arrangement and instrumental accompaniments for gospel music. Prereq.: MUSC- 201, MUSC- 203.

**MUSC- 383 Gospel Music Songwriting and Arranging II (2)**

Continues Gospel Music Songwriting and Arranging I. Prereq.: MUSC- 382.

**MUSC- 384 History and Aesthetics of Gospel Music I (2)**

Examines the socio-cultural and historical setting of gospel music in the context of the Black American experience in Western culture. Covers the major stylistic periods and major composers of gospel music from 1920-1970. Discusses challenges involved in developing value criteria relevant to the gospel idiom. Prereq.: Sophomore standing in music.

**MUSC- 385 History and Aesthetics of Gospel Music II (2)**

Continues History and Aesthetics of Gospel Music I from 1970 to the present. Prereq.: MUSC- 384.

**MUSC- 386 Principles of Gospel Music Pedagogy (2)**

Explores the methodology for teaching gospel music performance. Prereq.: Junior standing in music.

**MUSC- 390 Form and Analysis I (2)**

Examines form as an evolutionary process from early church monody, secular polyphony, up through the Baroque period in music history, with analysis of appropriate literature from these early periods. Prereq.: MUSC- 201, MUSC- 203.

**MUSC- 391 Form and Analysis II (2)**

Analyzes the various forms in music, including the classical, romantic, and modern periods. Surveys the contemporary analytical technique of form.. Prereq.: MUSC- 390 or MUSC- 301, MUSC- 203.

**MUSC- 392 Orchestration I (2)**

Provides a practical application of orchestration principles to elementary and secondary school teaching. Discusses techniques in scoring and arranging for small ensembles, as well as score reading and transcribing. Prereq.: MUSC- 201, MUSC- 203.

**MUSC- 393 Orchestration II (2)**

Continues Orchestration I with a primary focus on the orchestration of large scale compositions. Prereq.: MUSC- 390.

**MUSC- 394 Music Composition I (2)**

Explores creative writing of small forms in various idioms, approached through analysis and stylistic emulation of contemporary scores, selected listening and critical appraisal of original creative work. Serves an advanced seminar for several students or on an individual basis. Prereq.: MUSC- 201, MUSC- 203.

**MUSC- 395 Music Composition II (2)**

Continues Music Composition I. Prereq.: MUSC- 394.

**MUSC- 396 Counterpoint I (2)**

Examines the compositional style and technique of vocal polyphony in the 16th century, approached through species counterpoint, analysis, selective listening, and creative writing or performing. Prereq.: Junior standing in music.

**MUSC- 397 (2)**

Investigates the compositional style and technique of 18th Century instrumental forms which found culmination in the works of J. S. Bach; emphasizes the metamorphosis of such forms through the romantic period into 20th Century neo-classical style. Prereq.: Junior standing in music.

**MUSC- 398 Electronic Music Laboratory (2)**

Acquaints the student with materials, equipment, and techniques of the computer-assisted electronic music studio as applied to all facets of music composition/ arranging. Prereq.: MUSC- 271.

**MUSC- 406 Symphonic Literature (2)**

Examines the chronological development of symphonic literature and the orchestra from the 18th Century to the present. Covers representative composers through the analysis of scores and recorded performances. Prereq.: MUSC- 301.

**MUSC- 410 Directed Studies (VC)**

Provides an upper level course (under this designation) not included in the present Departmental offerings, as well as supervised independent study. Prereq.: Permission of Department Chair.

**MUSC- 415 Applied Major Keyboard (2)**

Two-semester course that continues Applied Major Keyboard. Requires two semesters. Prereq.: Two semesters of MUSC- 315.

**MUSC- 417 Piano Literature and Pedagogy Laboratory (2)**

Surveys piano literature from the pre-Baroque to the twentieth-century periods and provides supervised student teaching in the piano laboratory. Focuses on analysis, research, listening, performance, and emphasis on piano pedagogical principles for various ages. Prereq.: Piano majors with senior standing in Music Education.

**MUSC- 418 Piano Literature (2)**

Surveys piano literature from the Baroque to the contemporary periods. Concentrates on analysis, re-search, listening, performance, and student teaching demonstration with special emphasis on pedagogical techniques. Prereq.: Senior standing; piano majors only.

**MUSC- 419 Piano Pedagogy (2)**

Explores the concepts and practical applications of piano performance and pedagogy. Prepares the piano major for professional teaching in the private piano studio with emphasis on beginning and intermediate instruction. Provides supervised student teaching in the piano laboratory. Prereq.: MUSC- 418.

**MUSC- 425 Applied Major Voice (2)**

Two-semester course that continues Applied Major Voice. Recital performance required. Prereq.: Two semesters of MUSC- 325.

**MUSC- 428 Vocal Literature (2)**

Designed for voice majors only. Surveys vocal literature from early treatises to contemporary songs. Discusses techniques of interpretation and presentation for performance and teaching purposes. Prereq.: Senior standing,.

**MUSC- 430 Jazz Improvisation IV (1)**

Continues Jazz Improvisation III. Prereq.: Two semesters of MUSC- 330.

MUSC- 431Jazz Compositional Techniques and Advanced Arranging (2) Continues Jazz Arranging II. Prereq.: MUSC- 332.



**MUSC- 435 Applied Major Instrument (2)**

Requires recital performance for two semesters. Continues Applied Major Instrument. Prereq.: Two semesters of MUSC- 335.

**MUSC- 438 Applied Literature (2)**

Explores instrumental literature from the twentieth century periods. Concentrates on analysis, research, listening, and performance. Prereq.: Senior standing; orchestral instrument majors only.

**MUSC- 450 String Pedagogy I (2)**

Designed for the string major. Examines theory and development of string pedagogy as traced through available sources. Emphasizes methods of research. Requires a paper on a topic approved by the instructor. Prereq.: Two semesters of MUSC- 235.

**MUSC- 451 (2)**

Continues String Pedagogy I. Applies research to applied teaching with particular emphasis on the physiological aspects of string instrument performance. Requires teaching simulations and demonstrations. Prereq.: MUSC- 450.

**MUSC- 460 Vocal Pedagogy I (1)**

Acquaints students with the fundamentals of voice production and provides opportunities for research into, and comparative analysis of, the various schools and methods of teaching singing from the establishment of the Italian Scholar Cantorum to date.

Prereq.: MUSC- 325.

**MUSC- 461 Vocal Pedagogy II (1)**

Continues Vocal Pedagogy I. Prereq.: MUSC- 460.

**MUSC- 462 History of Opera (2)**

Explores in-depth the background of opera beginnings, its development, national styles, various elements, types of opera, literary sources and influences, use of ballet, and production components. Prereq.: MUSC- 226, MUSC- 301.

**MUSC- 463 Oratorio Literature (2)**

Explores literature for solo voice and small ensembles in the standard oratorios, cantatas, masses, and other works. Exposes operatic works no longer being staged but now being performed primarily in concert versions. Prereq.: MUSC- 226, MUSC- 301.

**MUSC- 464 English and American Vocal Literature (2)**

Surveys classical vocal literature of England and America from the pre-Elizabethan period to the present. Prereq.: Voice majors only.

**MUSC- 466 Italian Vocal Literature (2)**

Explores Italian vocal literature for the solo voice and small ensembles from the Renaissance to the present. Prereq.: MUSC- 225.

**MUSC- 481 Gospel Music Improvisation IV (1)**

Continues Gospel Music Improvisation III. Prereq.: Two semesters of MUSC- 381.

**MUSC- 490 Music Composition III (2)**

Continues Music Composition II. Prereq.: MUSC- 390.

**MUSC- 491 Music Composition IV (2)**

Continues Music Composition III. Prereq.: MUSC- 490.

**MUSC- 492 Music Theory History (2)**

Provides an overview how tonal or harmonic concepts developed in Western classical music through the study of selected treatises and music scores that represent specific historical developments in music theory/history. Prereq.: Senior standing; music theory majors only.

**MUSC- 493 20th Century Music Literature (2)**

Examines 20th century compositional practice through score reading, listening and analysis; surveys important composers, their compositional styles, socio-political influences on their work, and their individual impact on the musical scene, from 1900 to present. Prereq.: Senior standing; music theory majors only.

**Theater**

**THEA-104 Introduction of Theatre Arts (3)**

Examines theater as a medium of artistic expression and communication. Explores processes involved in transformation of script into theatrical production. Analysis of play structure and genre: tragedy, comedy, and melodrama. Includes reading of characteristic plays and critiquing of live theater.

**THEA-111 Stagecraft I (3)**

Introduces technical theatre. Includes a survey of tools, materials, basic construction, and painting techniques. Students create theatrical sets and properties. Combines lecture laboratory format with theory and practical application.

**THEA-144 Theatre Business Management (3)**

Examines issues and practices in American theater management, past and present. Includes front house organization, fundraising, season scheduling, costs, promotion, and box office procedures. Introduces backstage organization, with emphasis on the function of the stage manager.

**THEA-231 History of Theatre I (3)**

Studies representative play scripts and the styles, conventions, and practices of the theaters for which they were written, from ritual origins through the Italian renaissance. Discusses Yoruba ritual, Greek, Roman, Medieval, Asian, Italian, Renaissance theater history and scripts.

**THEA-232 History of Theatre II (3)**

Studies representative play scripts and the styles, conventions, and practices of the theaters for which they were written, from the late Renaissance through 19th Century Romanticism, Elizabethan, Spanish Renaissance, Restoration, 17th Century French, 19th Century Romantic theater history and scripts. Prereq.: 231-01.

**THEA-261 Acting I (3)**

Examines and actor's visualizing of an idea without a written text. Focus on sensory awareness, relaxation, and concentration. Emphasizes improvisation: spontaneous invention of dramatic situations, and characters that will hold audience attention. Explores the actor-audience relationship.

**THEA-262 Acting II (3)**

Provides a studio course in performing a written text: emphasizes basic acting techniques, playing intentions, objectives, situations, and characterization. Prereq.: THEA-261.

**THEA-264 Creative Dramatics (3)**

Teaching how to use improvisation and theater games to stimulate creative thinking and learning in children. Students will learn and apply classroom and theater techniques as they help a group of children or teenagers express their own experiences in games and creative scenes.

**THEA-265 Performance Workshop (3)**

Requires performances of an acting role or completion of a production function in a University production. Introduces the process of live theatrical production, rehearsal and performance techniques. (Required of all theater majors. Majors must repeat for a maximum of three credits.)

**THEA-281 Lighting I (3)**

Introduces stage lighting; practical application of optical, electrical, and aesthetic principles of light, i.e., light plot interpretation; control board operation; selection and installation of simple sound equipment; set-up, editing, and operation of show tapes; maintenance of light and sound equipment.

**THEA-321 Modern and Contemporary Theatre (3)**

Studies representative play scripts, styles, conventions, and practices of theaters for which they were written, from Ibsen to the present day. Discusses realism, anti-realism, epic theater, absurdism, and selected contemporary experimental theater formats and scripts.



**THEA-322 Theatre of the Black Experience (3)**

Studies the work of Black playwrights and the styles, conventions, and practices of the theaters for which they were created, from ancient oral tradition to the present.

**THEA-324 Fundamentals of Playwriting (3)**

Introduces writing for theater; includes analysis of playwriting in dramatic literature; writing exercises concentrating on specific techniques, i.e., visualization of environment, behavioral study of character, the use of dialogue, action, and metaphor. Culminates in completion of a one-act play.

**THEA-325 Playwriting Seminar (3)**

Conceptualizes through creative writing subject matter capable of being developed into a major work with complication, reversals, and a resolution evolving from motivated characterization. Allows classroom presentation of work in progress and a readers theater presentation of selected student scripts. Prereq.: THEA-324

**THEA-361 Acting III (3)**

Continues Acting II. Emphasizes integration of internal and external techniques of character development in longer scenes. Requires students to present a final acting project. Prereq.: THEA-262 or permission of instructor.

**THEA-364 Advanced Problems in Acting (3)**

Explores problems in acting presented through plays in non-realistic styles. Prereq.: THEA-361 and audition.

**THEA-266 Educational Theatre I (3)**

This course focuses on methodology and practice of drama-in education applied to multi-disciplinary learning within the first through sixth grade curricula. Students will be introduced to theme and story based improvisation, story dramatization, role play, and teacher-in-role strategies, and learn how to adapt activities for children with special needs. Curricula areas include language arts, social studies, science, and math, with additional focus on dealing with social issues such as conflict resolution, bullying and other pertinent issues. Emphasis will be placed on the design, structure, teaching and evaluation of drama lessons, which may include sessions with area schools.

**THEA-267 Educational Theatre II (3)**

This course focuses on methodology and practice of drama-in education applied to multi-disciplinary learning within the seventh through twelfth grade curricula. Students will continue in their study of theme and story based improvisation, role play, and teacher-in-role strategies, and learn how to adapt activities for youth with special needs within this age range. Curricula areas include language arts, literature, history, social studies, science, and math-with additional focus on dealing with social issues such as conflict resolution, leadership development and other pertinent issues. Emphasis will be placed on the design, structure, teaching and evaluation of drama lessons, which may include sessions with area schools.

**THEA-268 Theatre for Youth (3)**

In this course, students gain practical "hands-on" experience of working with youth in a theater-in-education and drama-in-education canon. They will experiment with ways in which to see alternatives and structure effective learning experiences and become critically acquainted with the teaching terrain of the drama-in-education practitioner.

**THEA-497 Special Topics in Drama (3)**

This class will explore how drama and theatre facilitates learning in educational, cultural and community settings. One topic will be selected when this class is offered and will be explored in depth throughout the entire semester. Special topics include, Drama Therapy, Social drama, Process Drama, forum Theatre, Participation theatre, Drama for Urban Youth, Theatre of the Oppressed, Drama for Special Populations, the Teaching Artist, Creative Drama in Alternative Spaces/Community Theatre-i.e., museums, parks, libraries, community, Prisons, Recreation Centers/Camps. Through

examining the key aspects of how a particular field developed through the work of prominent leaders and surveying the main concepts, structures, and conventions of the field, students will map out relationships between theories of dramatic art and general education principles, survey present practices and potentialities of educational drama, and investigate methods used at all levels of instruction. This class will provide the background for specific studies of the numerous aesthetic components of educational drama and theatre. Such a foundation provides the basis for the development of personal philosophies and practices.

**THEA-371 Directing I (3)**

Introduces methods of play directing: techniques of script analysis, methods of organization, and principles of appropriate leadership for rehearsal and performance. Requires final project. Prereq.: THEA-262 or permission of instructor.

**THEA-372 Directing II (3)**

Continues Directing with emphasis on directing one-act plays: techniques in conceptualizing the script, auditioning, rehearsal planning, and coaching of actors. Provides an opportunity for students to develop several scenes and to select and produce a one-act play. Prereq.: THEA-371.

**THEA-495 Independent Study in Theatre (3)**

Allow students to work independently on a supervised advanced project. Subject to approval of supervising faculty member. Prereq. 2.8 cumulative GPA, minimum of 60 semester hours, and permission of Department Chair.

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**BIOLOGY**

**BIOL 101 Biological Science I (3)**

Introduces the concepts of modern biological principles, with emphasis on the physical and chemical basis of life processes. Lec. 3 hrs., Co-req.: BIOL 103.

**BIOL 102 Biological Science II (3)**

Presents the structural and functional features of animal and plant systems, including interactions existing between major groups of organisms. Lec. 3 hrs., Pre-req.: BIOL 101, BIOL 103. Co-req.: BIOL104.

**BIOL 103 Biological Science I Laboratory (1)**

Focuses on the experimental principles of the physical and chemical processes of life. Lab 3 hrs., Co-req.: BIOL 101.

**BIOL 104 Biological Science II Laboratory (1)**

Examines unifying relationships between living organisms through dissection of a representative vertebrate. Emphasis is also placed on energy, respiration, structure, and function of organs, organ systems, and the total organism. Lab 3 hrs., Pre-req.: BIOL 101, BIOL 103. Co-req.: BIOL1 102.

**BIOL 111 Fundamentals of Human Anatomy and Physiology I (3)**

Focuses on the human body as it relates to function, organization, and interrelationship of body structures as these form an integrated functional organism. Lec. 3 hrs., Co-req.: BIOL 113.

**BIOL 112 Fundamentals of Human Anatomy and Physiology II (3)**

Details a continuation of Fundamentals of Human Anatomy and Physiology I. Emphasizes body systems and how these contribute to homeostasis. Lec. 3 hrs., Pre-req.: BIOL 111, BIOL 113. Co-req.: BIOL 114.

**BIOL 113 Fundamentals of Human Anatomy and Physiology I Laboratory (1)**

Examines the cellular, tissue, and organ levels of the organization of the human body and how these units coordinate activities and function in the living organism. Lab 3 hrs., Co-req.: BIOL 111.

**BIOL 114 Fundamentals of Human Anatomy and Physiology II Laboratory (1)**

Focuses on detailed examination of the structure and function of the body systems with emphasis on balanced coordination of the living organism. Lab 3 hrs., Pre-req.: BIOL 111, BIOL 113. Co-req.: BIOL 112.

**BIOL 122 Essentials of Human Biology (3)**



Introduces basic concepts and principles of body structure and function. Special emphases are given to transport mechanisms and the dynamics of steady state equilibrium. Lec. 3 hrs., Pre-req.: Permission of Department chair. Co-req.: BIOL 123.

**BIOL 123 Essentials of Human Biology Laboratory (1)**

Focuses on the basic organizational and principal functions of the human body in a hierarchical manner. Emphasis is also placed on the microscopic and macroscopic components of the human body. Lab 3 hrs., Co-req.: BIOL 122.

**BIOL 195 Independent Study/Biology (1-4)**

Provides an opportunity for students to arrange with an instructor in the Department to work on a topic selected prior to registration. Prepares reports on laboratory, library, and/or field research topics approved by the instructor on subjects not regularly covered in the Department. Lec. and/or Lab 6 hrs. Pre-req.: Permission of Department chair.

**BIOL 215 Histological Techniques (3)**

Exposes students to the procedures used to prepare various animal tissues for histochemical studies. The lecture presentations correlate the structural and functional features of animal cells and tissues. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104 and BIOL 112, BIOL 114. Co-req.: BIOL 216.

**BIOL 216 Histological Techniques Laboratory (1)**

Prepares and stains tissue samples for microscopic examination. Applies histochemical stains to label- specific chemical components of cells and tissues. Lab 3 hrs., Pre-req.: BIOL 102, BIOL 104 and BIOL 112, BIOL 114. Co-req.: BIOL 215.

**BIOL 224 Invertebrate Zoology Laboratory (1)**

Examines prepared slides and specimens of invertebrates and classifies them based on the taxonomical nomenclature. Lab 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 225.

**BIOL 225 Invertebrate Zoology (3)**

Studies selected invertebrates with special attention to those of the local area. Emphasis is placed on the morphology and physiology of organisms. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 224.

**BIOL 226 Zoology (3)**

Examines the fundamental characteristics of animals including structure, function, and ecology; includes current understandings of taxonomy and animal evolution. Pre-reqs: BIOL 102, BIOL 104.

**BIOL 227 Field Zoology (2)**

Examines the relationships of animals to their environment with emphasis on organisms indigenous to the local area; will include visits to local parks and nature areas Pre-reqs: BIOL 102, BIOL 104.

**BIOL 234 Botany Laboratory (1)**

Details laboratory exercises that address plant anatomy and functions. Lec. 3 hrs., Pre-req: BIOL 102, BIOL 104. Co-req.: BIOL 235.

**BIOL 235 Botany (3)**

Introduces the fundamental concepts of the scientific investigation of life, ranging from the cell as a living unit to the more complex plant life. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 234.

**BIOL 236 Systematic Botany (4)**

Explores the phylogenetic systematics of vascular plants of both extinct and extant taxa. Compares traditional and modern means of classification based on morphological and molecular characters. Pre-req BIOL 234, BIOL 235.

**BIOL 240 General Microbiology I Laboratory (1)**

Focuses on exercises involved with isolation and identification of bacteria, yeast, and molds. Lab 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 241.

**BIOL 241 General Microbiology I (3)**

Examines the basic principles concerning microbial life and its relationship to human welfare. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 240.

**BIOL 245 Clinical Microbiology (3)**

Emphasizes the structure, function, and pathogenic nature of various microorganisms as these relate to infection, body resistance, and diagnostic testing. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104 or permission of instructor. Co-req.: BIOL 246.

**BIOL 246 Clinical Microbiology Laboratory (1)**

Focuses on exercises that involve the use of micro-biological techniques in culturing select groups of microorganisms. Pre-req: BIOL 102, BIOL 104. Co-req.: BIOL 245.

**BIOL 295 Independent Study Biology (1-4)**

Provides an opportunity for students to arrange with an instructor in the Department to work on a topic selected prior to registration. Students prepare reports on laboratory, library, and/ or field research topics approved by the instructor on subjects not regularly covered in the Department. Lec. and/or Lab 6 hrs., Pre-req.: Permission of Department Chairperson.

**BIOL 317 General Physiology Laboratory (1)**

Provides experiments on the functioning of animal cells, tissues, and organs. Lab 3 hrs., Pre-req.: BIOL 102, BIOL 104; CHEM 112, CHEM 114. Co-req.: BIOL 319.

**BIOL 319 General Physiology (3)**

Details the principles of animal physiology presented with references to the functioning of cells, tissues, and organs. Emphasizes basic cell functions and biological control systems, such as membrane phenomena, energy and cellular metabolism, protein synthesis, muscle contraction, and other areas of functional biology. Lec. 3 hrs., Pre-req.: BIOL 101, BIOL 102; CHEM 112, CHEM 114. Co-req.: BIOL 317.

**BIOL 325 Human Anatomy (3)**

Examines the structure and organization of organs and organ systems of the human body including the skeletal, muscular, circulatory, digestive, and nervous systems. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104; 1401 226, BIOL 228. Co-req.: BIOL 328.

**BIOL 326 Mammalian Histology (3)**

Examines the basic concepts of the structure of tissues and organs of mammals at the light and ultrastructure levels. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 327.

**BIOL 327**

Identifies cells, tissues, and organs of mammals at the light microscopic and electron microscopic levels. Lab 3 hrs., Pre-req.: 1401 102, BIOL 104. Co-req.: BIOL 326.

**BIOL 328 Human Anatomy Laboratory (1)**

Emphasizes dissection of organisms for studying the various systems: skeletal, muscular, digestive, urinary, cardiovascular, and nervous. Lab 3 hrs., Pre-req.: BIOL 102, BIOL 104; BIOL 226, BIOL 228. Co-req.: BIOL 325.

**BIOL 330 Cell Biology I Laboratory (1)**

Explores the principles and techniques of cell biological experimentation, involving chemical and molecular structure of cells and cellular respiration. Lab 3 hrs., Pre-req.: BIOL 240, BIOL 241; BIOL 360, BIOL 361; CHEM 112, CHEM 114. Co-req.: CHEM 331.

**BIOL 331 Cell Biology I (3)**

Introduces the molecular basis of cell structure and functions with consideration of subcellular organelles, including the processes of cellular metabolism and oxidative regulation of control mechanisms in cell metabolism. Lec. 3 hrs., Pre-req.: BIOL 240, BIOL 241; BIOL 360, BIOL 361; CHEM 112, CHEM 114. Co-req.: BIOL 330.

**BIOL 332 Cell Biology II (3)**

Focuses on the molecular aspects of mitosis and meiosis, including molecular models of intergenic and intragenic recombination, DNA repair, and mutation. Discusses cellular biology, such as inborn errors of metabolism, the role of vitamins, cell transformation, and related subjects. Promotes an understanding of the major lines of research in the area. Lec. 3 hrs., Pre-req.: BIOL 330, BIOL 331. Co-req.: BIOL 333.



**BIOL 333 Cell Biology II Laboratory (1)**

Discusses techniques of recombinant DNA and principles of cell biological experimentation. Lab 3 hrs., Pre-req.: BIOL 330, BIOL 331. Co-req.: BIOL 332.

**BIOL 335 Mycology (3)**

Focuses on characteristics, reproductive structures, and medically important fungi. Emphasizes nutritional adaptations and fungal diseases of plants, animals, and humans. Lec. 3 hrs., Pre-req.: BIOL 240, BIOL 241; Co-req.: BIOL 336.

**BIOL 336 Mycology Laboratory (1)**

Examines prepared slides and specimen of yeasts, molds, and fleshy fungi. Isolates and identifies mildews, rusts, smuts, yeasts, and mushrooms. Lab 3 hrs., Pre-req.: BIOL 240, BIOL 241; Co-req.: BIOL 335.

**BIOL 337 Biostatistics (3)**

Introduces the principal statistical techniques used in the analysis of biological data. Lec. 3 hrs., Pre-req.: BIOL 224, BIOL 225 or BIOL 240, BIOL 241, or BIOL 234, BIOL 235. Co-req.: BIOL 338.

**BIOL 338 Biostatistics Laboratory (1)**

Analyzes data from experiments in biology and ecology using computers. Pre-req.: BIOL 224, BIOL 225 or BIOL 240, BIOL 241, or BIOL 234, BIOL 235. Co-req.: BIOL 337.

**BIOL 344 Immunology Laboratory (1)**

Emphasizes the fundamentals of serologic procedures and the roles in a variety of infectious and non-infectious conditions. Examines a series of diagnostic tests to detect specific antibodies in sera and biological fluids. Lab 3 hrs., Pre-req.: BIOL 240, BIOL 241. Co-req.: BIOL 346.

**BIOL 346 Immunology (3)**

Introduces the principles involved with the immune response in man and higher animals. Emphasizes antibody formation and antibody-antigen reactions. Lec. 3 hrs., Pre-req.: BIOL 240, BIOL 241. Co-req.: BIOL 344.

**BIOL 360 General Genetics Laboratory (1)**

Identifies modes of inheritance utilizing alleles of various characteristics to show phenotypic expression. Lab 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 361.

**BIOL 361 General Genetics (3)**

Presents the mechanisms of inheritance and expression of hereditary traits of representative microorganisms, plants, and animals. Explores the structure and function of the gene at the molecular level. Lec. 3 hrs., Pre-req.: BIOL 102, BIOL 104. Co-req.: BIOL 360.

**BIOL 362 Advanced Genetics (3)**

Examines the chemical basis of gene expression, the mechanism of nucleic acid replication, the genetic code, protein synthesis, and phenotype variation due to gene mutation. Lec. 3 hrs., Pre-req.: BIOL 360, BIOL 361; CHEM 112. Co-req.: BIOL 363.

**BIOL 363 Advanced Genetics Laboratory (1)**

Examines phenotypic expression utilizing alterations to typical Mendelian ratios such as gene mutations, chromosomal aberrations, and novel phenotypes. Lab 3 hrs., Pre-req.: BIOL 360, BIOL 361. CHEM 112. Co-req.: BIOL 362.

**BIOL 364 Embryology Laboratory (1)**

Details the fetal development in selected organisms from gamete formation to organogenesis. Lab 3 hrs., Pre-req.: BIOL 224, BIOL 225 or BIOL 226, BIOL 228. Co-req.: BIOL 365.

**BIOL 365 Embryology (3)**

Introduces selected vertebrates with emphasis on gametogenesis, morphogenesis, organogenesis, and developmental physiology. Lec. 3 hrs., Prereq.: BIOL 225, BIOL 224 or BIOL 226, BIOL 228. Co-req.: BIOL 364.

**BIOL 366 Evolution (4)**

Explores the history of evolution, evolutionary processes, adaptation and evolution of genes and genomes including microevolution, macroevolution and speciation. Pre-req BIOL 102, BIOL 104.

**BIOL 395 Independent Study (4)**

Provides an opportunity for students to arrange with an instructor in the Department to work on a topic selected prior to registration. Prepares reports on laboratory, library and/or field research topics approved by the instructor on subjects not regularly covered in the Department. Lab 6 hrs., Pre-req: Permission of the Department Chairperson.

**BIOL 401 Undergraduate Research I (4)**

Supervises the planning, conducting, and reporting of independent laboratory and/or library research as part of an honors program in the biology unit; analyzes reports on data obtained as a result of independent laboratory and/or library research; work designed to encourage students to pursue graduate studies. Lab 6 hrs., Prereq.: Permission of Department Chairperson.

**BIOL 402 Undergraduate Research II (4)**

Continues Undergraduate Research I. Lab 6 hrs., Pre-req.: Permission of Department Chairperson.

**BIOL 405 Electron Microscopy (3)**

Presents techniques of specimen preparation and use of the electron microscope in a study of the ultrastructure of animal and plant cells. Lec. 3 hrs., Prereq.: BIOL 326, BIOL 327 or Permission of Department Chair. Co-req.: BIOL 406.

**BIOL 406 Electron Microscopy Laboratory (1)**

Prepares specimens for examination with the electron microscope. Lab 3 hrs., Pre-req.: BIOL 326, BIOL 327 or permission of Department Chairperson. Co-req.: BIOL 405.

**BIOL 443 Principles of Virology Laboratory (1)**

Prepares bacteriological media, cultivation of bacteria, and growth of bacteriophages. Applies immunological techniques used in assaying viruses; and includes a special project involving limited research on a related topic. Lab. 3 hrs., Pre-req.: BIOL 240, BIOL 241. Co-req.: BIOL 445.

**BIOL 444 Principles of Parasitology Laboratory (1)**

Examines the life cycle of parasites in the animal kingdom via preserved specimens, light microscopy, and live specimens. Emphasizes life cycles with vertebrate and invertebrate hosts. Lab 3 hrs., Pre-req.: BIOL 224, BIOL 225 or BIOL 226, BIOL 228. Co-req.: BIOL 446.

**BIOL 445 Principles of Virology (3)**

Presents the chemical, physical, and biological properties of animals, plants, bacteria and viruses. Explores cultivation and purification of animal viruses and determination of viral titer. Lec. 3 hrs., Pre-req.: BIOL 240, BIOL 241. Co-req.: BIOL 443.

**BIOL 446 Principles of Parasitology (3)**

Examines the parasite-host relationship. Also explores the variations of permanency of the association, degree of intimacy, and degree of pathogenicity. Lec. 3 hrs., Prereq.: BIOL 224, BIOL 225 or 226, 228. Co-req.: BIOL 444.

**BIOL 490 Molecular Biology (3)**

Introduces the basic concepts of molecular biology with emphasis on nucleic acid structure, gene expression, and recombinant DNA methodology. Lec. 3 hrs., Prereq.: BIOL 240, BIOL 241; BIOL 361, BIOL 360. Co-req.: BIOL 491.

**BIOL 491 Molecular Biology Laboratory (1)**

Emphasizes electrophoretic separation of nucleic acids and proteins. Introduces purification and enzymatic digestion of nucleic acids, principles of agarose and polyacrylamides gel electrophoresis. Explores Southern, Northern, and Western blotting, DNA sequencing and finger-printing, RFLP's, PCR, and other applications in biotechnology. Lab 3 hrs., Pre-req.: BIOL 490. Coreq.: BIOL 490.

**BIOL 493 Senior Seminar I (2)**

Prepares, presents, and discusses current scientific topics and original research papers. Includes a series of articles to be discussed and presented to students. Lec./demo. 2 hrs., Pre-req.: Senior standing in biology.





**BIOL 494 Senior Seminar II (2)**

Continuing activities of Senior Seminar I. Lec./demo. 2 hrs., Pre-req: Senior standing in biology.

**BIOL 495 Independent Study (1-4)**

Provides an opportunity for students to arrange with an instructor in the Department to work on a topic selected prior to registration. Prepares reports on laboratory, library, and/or field research topics approved by the instructor on subjects not regularly covered in the Department. Lab 6 hrs., Pre-req.: Permission of Department Chair.

**Graduate Course Descriptions**

**BIOL 508 Tumor Biology - Cellular and Molecular Aspects of the Transformed Cell (3)**

Designed to provide students with an integrative overview of mechanisms of growth control and malignant transformation by physical, chemical, and viral mechanisms. Introduces growth factors, oncogenes, and suppressor genes including the means of reverting or blocking malignant behavior with a particular emphasis on biochemical and molecular mechanisms.

**ENSC 550 Environmental Health (2)**

Explores of the basic principles governing the behavior of toxic agents in the environment and their effects on humans. Emphasizes environmental agents that cause cancer.

**BIOL 545 Cancer Epidemiology (3)**

Introduces epidemiological methods with a focus on methodological issues relevant to cancer research. Examples from "real" studies and issues will be used throughout the course. Weekly assignments require students to put into practice some of the material introduced in class. Two short papers will be assigned as part of the class that will require the students to read and evaluate published epidemiology studies.

**BIOL 500 Research Methods and Career Development (1)**

Introduces methods in responsible conduct of research, procedures in searching scientific literature, preparing presentation and participating in scientific meeting. Also discusses sources, drafting, and submitting grants and fellowships along with career information.

**BIOL 502 Biostatistics (3)**

Addresses statistical analysis needed in research. Covered topics include probability, distribution I and II, graphical approaches to data analysis, estimation and hypothesis testing, categorical data, linear and logistic regression and epidemiological statistics.

**1401 534 Research and Applied Ethics (2)**

Addresses responsible conduct in research and applied ethics detailing the proper ethical methods in conducting research (e.g., data sharing, ownership, publication issues, null results, credit, plagiarism) human subjects, conflict of interest, genetic counseling, and policy issues.

**BIOL 535 Principles and Practices of Behavioral Science in Cancer (2)**

Explains general principles and practices involved in cancer control through behavior and behavior change at the individual and population levels. Also covers theory and applied aspects in this field.

**NUFS 500 Dietary Cancer Prevention (2)**

Features presentations primarily by the faculty and postdoctoral fellows, and class discussions of any materials provided to the students in advance. Students may be required to read up to 2 papers per week, and to participate in all class discussions.

**BIOL 531 Cell and Molecular Biology Laboratory (3)**

Introduces basic tissue culture techniques, microscopy, cancer cell lines and molecular biological principles and procedures that will help clarify the subject and prepare students for the research assignment in the second year of the program.

**BIOL 585 Cancer Education, Outreach and Field Study (4)**

Designed to acquaint students with the techniques and methods required to carry out cancer prevention and control activities. Covers health education theories and models, a basic overview of cancer, behavior changes and its connection to cancer prevention and control, basic counseling skills and communication techniques, life-style modifications and cancer prevention and control, and organizing and implementation of cancer outreach projects

**BIOL 601 Research I (3 – 6)**

Independent investigation of a special topic selected prior to registration. Students work directly with a faculty mentor on the advanced topic that is not covered in the Department curriculum. Permission of Department Chair.

**BIOL 602 Research II (3 – 6)**

Continuation of independent investigation of a special topic. Graduate students work directly with a faculty mentor on the advanced topic that is not covered in the Department's curriculum. Permission of Department Chair.

**BIOL 690 Topics in Epidemiology (3)**

Focuses on the latest developments in the field of cancer risk assessment and explore how inter-individual variation contributes to cancer risk.

**BIOL 660 Molecular Genetics (3)**

Introduces the fundamentals of the molecular genetics and molecular cytogenetics of cancer. Also covers diagnostic, clinical, and population-based aspects of this rapidly advancing field.

**BIOL 581 Molecular Epidemiology (1)**

Designed to familiarize the student with literature sources and specific laboratory tests used to determine risk factors involved in cancer and disease susceptibility. Discusses the criteria used assess molecular epidemiological studies. Incorporates a first year journal club where students will make presentations in the forum.

**BIOL 535 Principles and Practices of Behavioral Science in Cancer (2)**

Explains general principles and practices involved in cancer control through behavior and behavior change at the individual and population levels. Also covers theory and applied aspects in this field.

**BIOL 500 Dietary Cancer Prevention (2)**

Features presentations primarily by the faculty and postdoctoral fellows and class discussions of any materials provided to the students in advance. Students may be required to read up to 2 papers per week, and to participate in all class discussions.

**BIOL 531 Cell and Molecular Biology Laboratory (3)**

Introduces basic tissue culture techniques, microscopy, cancer cell lines and molecular biological principles and procedures that clarify the subject and prepare students for the research assignment in the second year of the program.

**BIOL 585 Cancer Education, Outreach and Field Study (4)**

Designed to acquaint students with the techniques and methods required to carry out cancer prevention and control activities. Examines health education theories and models, a basic overview of cancer, behavior changes and its connection to cancer prevention and control, basic counseling skills and communication techniques, life-style modifications and cancer prevention and control. Provides opportunities to organize, present, and implement cancer outreach projects.

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## **CHEMISTRY**

### **CHEM 105 Fundamentals of Chemistry (3)**

Surveys the essential concepts of inorganic chemistry with emphasis on health-related applications. CHEM 105 is not acceptable for credit toward graduation for students majoring in chemistry. When taken as a prerequisite for 1507 111 (General Chemistry I Lecture), there is no co-requisite. When taken to satisfy the University-wide science requirement, concurrent enrollment in CHEM 106 (Fundamentals of Chemistry Laboratory) is required. Lec. 3 hrs., Prereq: High School Algebra (2 yrs.) or equivalent.

### **CHEM 106 Fundamentals of Chemistry Laboratory (1)**

Introduces basic laboratory techniques through a collection of experiments designed for students who have little or no laboratory experience. Requires concurrent enrollment in CHEM 105. Lab 3 hrs.

### **CHEM 111 General Chemistry I (3)**

Examines atomic structure, stoichiometry, periodic table, chemical bonding, molecular structure, properties of gases, liquids and solids, acids and bases, and oxidation-reduction reactions. Lec 3 hrs., Pre-req.: High school chemistry or CHEM 105, two years of high school algebra. Co-req.: CHEM 113.

### **CHEM 112 General Chemistry II (3)**

Examines chemical thermodynamics, chemical kinetics, chemical equilibria, electrochemical reactions, nuclear chemistry, and coordination complexes. Lec 3 hrs., Pre-req.: CHEM 111; Co-req: CHEM 114.

### **CHEM 113 General Chemistry I Laboratory (1)**

Concentrates on the principles of chemistry with emphasis on statistical treatment of experimental data. Requires concurrent enrollment in CHEM 111. Lab 3 hrs.

### **CHEM 114 General Chemistry II Laboratory (1)**

Emphasizes the experimental principles of solution chemistry. Requires concurrent enrollment in CHEM 112. Lab 3 hrs., Pre-req.: CHEM 113.

### **CHEM 135 Essentials of Organic and Biochemistry (3)**

Studies classes of organic compounds, their structure, nomenclature, and characteristic reactions including structure, function, and metabolism of proteins, carbohydrates, lipids, and nucleic acids. Requires concurrent enrollment in CHEM 136. Lec 3 hrs., Pre-req.: CHEM 105 or CHEM 111.

### **CHEM 136 Essentials of Organic and Biochemistry Laboratory (1)**

Illustrates the basic properties of organic and biological compounds and some of the reactions these compounds undergo, including functional group analysis through experimental exercises. Requires concurrent enrollment in CHEM 135. Lab 3 hrs.

### **CHEM 225 Descriptive Inorganic Chemistry (2)**

Discusses the descriptive chemistry of the elements and compounds emphasizing trends, similarities, and comparisons among the properties. Lec 2 hrs., Pre-req.: CHEM 112.

### **CHEM 231 Organic Chemistry I (3)**

Studies the structure, nomenclature, stereochemistry, reactions, and reaction mechanisms of hydrocarbons, alkyl halides, and alcohols. Lec 3 hrs., Pre-req.: CHEM 112. Co-req.: CHEM 233.

### **CHEM 232 Organic Chemistry II (3)**

Examines the preparation and reactions of alkyl halides, alcohols, phenols, ethers, aldehydes, ketones, amines, carboxylic acids and their derivatives, carbohydrates and other biologically important compounds. Lec 3 hrs., Pre-req.: CHEM 231. Co-req.: CHEM 234.

### **CHEM 233 Experimental Organic Chemistry I (2)**

Experiments in the techniques of separation, purification, and identification of pure substances; preparations and reactions of selected organic families. Introduces infrared spectroscopy. Lab 6 hrs., Pre-req.: CHEM 114. Co-req.: CHEM 231.

### **CHEM 234 Experimental Organic Chemistry II (2)**

Introduces nuclear magnetic resonance, ultraviolet and mass spectroscopy. Also covers preparations and reactions of oxygenated organic compounds, and introduces qualitative organic analysis. Lab 6 hrs., Pre-req.: CHEM 233. Co-req.: CHEM 232.

### **CHEM 245 Quantitative Analysis (3)**

Discusses the theories of volumetric and gravimetric analysis with particular emphasis on acid-base, precipitation, complex formation and oxidation-reduction reactions. Lec 3 hrs., Prereq: CHEM 112.

### **CHEM 247 Quantitative Analysis Laboratory (2)**

Features experiments illustrating volumetric, gravimetric, and potentiometric methods of analysis. Lab 6 hrs., Co-req.: CHEM 245.

### **CHEM 351 Physical Chemistry I (3)**

Examines the physicochemical systems with application to the first, second, and third laws of thermodynamics, thermochemistry, homogeneous and heterogeneous equilibria, electrochemistry, ionic equilibria, liquids, and surface chemistry. Lec 3 hrs., Pre-req.: CHEM 112, MATH 152, PHYS 201. Co-req.: CHEM 353.

### **CHEM 352 Physical Chemistry II (3)**

Discusses the kinetic theory of gases, kinetics and mechanism, molecular structure and symmetry, and quantum theory and spectroscopy. Also addresses statistical mechanics irreversible processes insolution, crystal structure, and solid state. Lec 3 hrs., Pre-req.: CHEM 351. Co-req.: CHEM 354.

### **CHEM 353 Physical Chemistry I Laboratory (2)**

Provides laboratory instruction in experimentation, treatment of experimental data and error analysis; report writing, and theory and operation of instruments. Lab 4 hrs., Co-req.: CHEM 351.

### **CHEM 354 Physical Chemistry II Laboratory (2)**

Examines the techniques of physical measurements and error analysis. Explores thermodynamic measurements, chemical dynamics, spectroscopy, physical property measurements, and electrochemical and conductivity measurements. Lab 4 hrs., Pre-req.: CHEM 353. Co-req.: CHEM 352.

### **CHEM 355 Physical Chemistry Calculations I (1)**

Examines calculations based on the application of theories as studied in Physical Chemistry I Lec 1 hr., Co-req.: CHEM 351.

### **CHEM 356 Physical Chemistry Calculations II (1)**

Examines calculations based on the application of theories as studied in Physical Chemistry II. Lec 1 hr., Co-req.: CHEM 352.

### **CHEM 411 Senior Research I (2)**

Provides directed research in chosen area of chemistry. Includes techniques in literature searching, utilization of basic and specialized instrumentation, and preparation of scientific reports. Primarily for chemistry majors; however, other qualified majors may be considered. Lab 6 hrs., Pre-req.: Permission of Department chair.

### **CHEM 412 Senior Research II (2)**

Continues research project begun in CHEM 411. Students analyze and interpret data and prepare a final written report. Requires a seminar presentation to the Department. Lab 6 hrs., Pre-req.: CHEM 411.

### **CHEM 425 Inorganic Chemistry (3)**

Studies atomic structure related to the periodic arrangement of elements. Discusses modern theories of bonding and acid-base systems. Includes structure, molecular symmetry, and group theory of inorganic compounds. Lec 3 hrs., Pre-req.: CHEM 351.



**CHEM 426 Inorganic Chemistry Laboratory (2)**

Examines the preparation of inorganic and organometallic compounds, illustrating advanced preparation techniques, including characterization by spectroscopic methods. Includes equilibrium and kinetics of related reaction systems. Lab 4 hrs., Pre-req.: CHEM 353.

**CHEM 435 Qualitative Organic Analysis (3)**

Illustrates the systematic identification of organic compounds. Includes separation of mixtures, functional group analysis, and preparation of derivatives for characterization and identification. Lec. 1 hr., Lab 4 hrs., Pre-req.: CHEM 232 and CHEM 234.

**CHEM 436 Advanced Organic Synthesis (2)**

Features an advanced laboratory course in organic chemistry. Discusses the techniques for preparing, purifying, and identifying organic compounds, with an emphasis on newer developments. Determines mechanisms of reactions by kinetic and product analysis. Lab 4 hrs., Pre-req.: CHEM 234.

**CHEM 437 Advanced Organic Chemistry (3)**

Examines theoretical organic chemistry. Discusses inductive, steric, and resonance effects, kinetic methods for determining reaction mechanisms, molecular rearrangements, and basic concepts in molecular orbital theory. Lec 3 hrs., Pre-req.: CHEM 232.

**CHEM 445 Instrumental Methods of Analysis (3)**

Examines the theory of instrumental methods of analysis, including potentiometry, coulometry, polarography, absorption spectrophotometry, chromatography, atomic spectroscopy, and nuclear magnetic resonance. Lec 3 hrs., Pre-req.: CHEM 247 and CHEM 352.

**CHEM 447 Instrumental Analysis Laboratory (2)**

Provides practice in electroanalytic methods, including potentiometry, coulometry, and polarography as well as optical methods, including visible, ultraviolet, infrared, and atomic absorption spectroscopy. Also discusses gas and high performance liquid chromatography and nuclear magnetic resonance. Lab 4 hrs., Co-req.: CHEM 445.

**CHEM 461 Biochemistry I (3)**

Discusses the chemistry and function of biologically important compounds (amino acids and proteins, enzymes, carbohydrates, lipids, nucleic acids), membrane structure and transport, and the thermodynamics of biological systems. Lec 3 hrs., Pre-req.: CHEM 232.

**CHEM 462 Biochemistry II (3)**

Studies the chemistry and regulation of major metabolic pathways, and fundamentals of molecular biology (replication of DNA, transcription, the genetic code, protein biosynthesis, and modern genetic technology) including a discussion of the ethical implications of contemporary practices. Lec 3 hrs., Pre-req.: CHEM 461.

**CHEM 463 Experimental Biochemistry I (2)**

Introduces techniques and applications of modern biochemistry, such as physicochemical studies of amino acids, purification, characterization, and kinetic study of an enzyme, isolation and characterization of DNA, utilization of chromatographic and electrophoretic methods. Lab 6 hrs., Pre-req.: CHEM 234. Co-req.: CHEM 461.

**CHEM 464 Experimental Biochemistry II (2)**

Introduces techniques to study gene expression, gene identification and sequencing, and protein sequencing. Also introduces current concepts such as genomics, proteomics, and metabolomics. Lab 6 hrs., Pre-req.: CHEM 462, Co-req.: CHEM 463.

**PHYSICS**

**PHYS 101 Introduction to College Physics I (3)**

Introduces laws of motion and the concept of energy, thermal and elastic properties of matter, and theories of waves and sound. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour per week for problem solving. Lec 3 hrs., Pre-req.: MATH 105 or equivalent. Co-req.: PHYS 103.

**PHYS 102 Introduction to College Physics II (3)**

Continues Introduction to College Physics I Lecture. Includes the study of electricity and magnetism, electronics, geometrical and physical optics, and a description of atomic and nuclear structure. Fulfills physics requirement for biology, premed, and other science majors. Includes one additional hour for problem solving. Lec 3 hrs., Pre-req.: PHYS 101, Co-req.: PHYS 104.

**PHYS 103 Introduction to College Physics I Laboratory (1)**

Accompanies Introduction to College Physics I Lecture and must be taken concurrently with the lecture course. Lab 2 hrs. Laboratory section must correspond to the lecture section.

**PHYS 104 Introduction to College Physics II Laboratory (1)**

Accompanies Introduction to College Physics II Lecture and must be taken concurrently with the lecture course. Lab 2 hrs. Laboratory section must correspond to the lecture section.

**PHYS 114 Astronomy and Space Science (3)**

Introduces the principles of astronomy, which includes a discussion of the origin of the universe, theories of the nature of the universe, fundamental principles of solar and stellar systems, stellar phenomena, and space flight dynamics. Lec 3 hrs., Co-req.: PHYS 116.

**PHYS 115 Physics of Music (3)**

Introduces acoustics and the theory of wave phenomena as related to the physical aspects of music. Primarily for music majors. Lec 3 hrs. Pre-req.: MATH 105. Co-req.: PHYS 117.

**PHYS 116 Astronomy and Space Science Laboratory (1)**

Accompanies Astronomy and Space Science Lecture. Includes experiments in physics as related to topics covered in the lecture. Includes visits to a planetarium located in the area. To be taken concurrently with PHYS 114. Lab 2 hrs.

**PHYS 117 Physics of Music Laboratory (1)**

Accompanies Physics of Music Lecture. To be taken concurrently with PHYS 115. Lab 2 hrs.

**PHYS 201 University Physics I (3)**

Begins a sequence designed for physics majors and others who want a rigorous, calculus-level study on the general topics of classical and modern physics, with emphasis on problem solving. Includes Newtonian mechanics which emphasizes the conservation laws of physics, fluid mechanics, heat, and thermodynamics. Lec 3 hrs. Requires a weekly two-hour discussion and problem solving session. Pre-req.: MATH 151. Co-req.: PHYS 205.

**PHYS 202 University Physics II (3)**

Continues University Physics I. Includes the study of wave motion, electric and magnetic fields, DC and AC electrical circuits, electromagnetic waves, and optics. Emphasizes problem solving. Requires a passing grade on a physics objective test to obtain credit for the course. Lec 3 hrs. Requires a weekly two hour discussion and problem solving session. Pre-req.: PHYS 201, MATH 152. Co-req.: PHYS 206.

**PHYS 203 University Physics III (3)**

Continues University Physics II. Includes the study of relativity, quantum theory, atomic, molecular and nuclear physics, and an introduction to solid state physics. Required for physics and engineering majors. Lec 3 hrs. Requires a weekly two-hour discussion and problem solving session. Pre-req.: PHYS 202. Co-req.: For engineering majors, PHYS 207.

**PHYS 205 University Physics I Laboratory (1)**

Concentrates on experiments in the principles of physics, and must be taken concurrently with PHYS 201. Lab 2 hrs.



**PHYS 206 University Physics II Laboratory (1)**

Continues University Physics I Laboratory, and must be taken concurrently with PHYS 202. Lab 2 hrs.

**PHYS 207 University Physics III Laboratory (1)**

Accompanies University Physics III Lecture, and must be taken concurrently with PHYS 203. Lab 2 hrs.

**PHYS 211 Laboratory Techniques I (1)**

Introduces important techniques including electronic circuit construction and the use of science instruments. Provides instruction for science majors and students interested in experimentation. Lab 2 hrs., Pre-req.: PHYS 101 or PHYS 201.

**PHYS 212 Laboratory Techniques II (1)**

Continues Lab Techniques I. Introduces instruments and methods used in research laboratories in the physical sciences. Explores the use and calibration of standard electrical and electronic instruments. Provides instruction for science majors and others interested in instrumentation. Lab 2 hrs., Pre-req.: PHYS 211.

**PHYS 331 Mechanics I (3)**

Studies mechanics using Newton's laws of motion. Includes a discussion of velocity and acceleration in plane polar coordinates, cylindrical coordinates, and spherical coordinates. Also covers simple harmonic motion, damped harmonic motion and forced harmonic resonance, and constrained motion of a pendulum in addition to Kepler's three laws of motion and dynamics many particled- systems. Lec 3 hrs., Pre-req.: PHYS 202, MATH 152.

**PHYS 332 Mechanics II (3)**

Continues Mechanics I. Includes a discussion of mechanics of rigid bodies in two and three dimensions. Discusses physical pendulum, and Lagrange's and Hamilton's equations of motion, in addition to the dynamics of oscillating systems, and coupled harmonic oscillators. Lec 3 hrs., Pre-req.: PHYS 331.

**PHYS 341 Advanced Physics Laboratory I (1)**

Concentrates on laboratory experiments in modern physics and various experiments using scientific apparatus in laser spectroscopy, magnetics, ultra-sonics, x-rays, or nuclear physics. Designed for science majors. Lab 2 hrs., Pre-req.: Permission of Department chair.

**PHYS 342 Advanced Physics Laboratory II (1)**

Continues Advanced Physics Laboratory I in an area of study other than the one chosen in Advanced Physics Laboratory I. Lab 2 hrs., Pre-req.: PHYS 341.

**PHYS 345 Optics (3)**

Explores the techniques and instruments of both classical and modern optics from lenses to lasers. Provides instruction for science majors. Lec 3 hrs., Pre-req.: PHYS 202.

**PHYS 346 Thermodynamics (3)**

Examines thermodynamic systems making use of equations of state. Covers the first, second, and third laws of thermodynamics. Includes a discussion of some engineering applications and topics for physical chemistry. Lec 3 hrs., Pre-req.: PHYS 202, MATH 152.

**PHYS 381 Mathematical Methods in Science I (3)**

Explores various mathematical techniques, including series, complex variable theory, vector calculus, and differential equations, with emphasis on solving practical problems in chemistry, engineering, and physics. Lec 3 hrs., Pre-req.: PHYS 202, MATH 152.

**PHYS 382 Mathematical Methods in Science II (3)**

Continues Mathematical Methods in Science I. Applies applications to more advanced problems including differential equations, and boundary value problems. Lec 3 hrs., Pre-req.: PHYS 381

**PHYS 418 Statistical Mechanics (3)**

Discusses the development of certain thermodynamic concepts from the statistical point of view. Uses kinetic theory of gases where applicable. Lec 3 hrs., Pre-req.: PHYS 346.

**PHYS 441 Modern Physics I (3)**

Introduces quantum mechanics, covering the Schrodinger equation, tunneling phenomena, the hydrogen atom, multielectron atoms, and a survey of statistical mechanics. Lec 3 hrs. Prereq.: PHYS 203,

MATH 254.

**PHYS 442 Modern Physics II (3)**

Continues Modern Physics I. Applies the theory set forth in Modern Physics I to more specialized areas. Includes the physics of molecules and lasers, an introduction to physics of solids, and the study of nuclear and particle physics. Lec. 3 hrs. Prereq.: PHYS 441.

**PHYS 446 SEL TOPICS SOLID STATE PHYSICS**

Introduces periodic arrays of atoms, fundamental types of lattices, simple crystal structures, phonon and lattice vibrations, thermal properties of insulators, and free electron Fermi gas.

**PHYS 451 Senior Project I (VC)**

Investigates research problems using facilities of the laboratory and library. Requires approval and supervision by designated physics faculty. Prereq.: Permission of chairperson.

**PHYS 452 Senior Project II (VC)**

Continues Senior Project I. Requires each major to write a scientific paper based on senior project research and make an oral presentation of the paper to the physics faculty and students. Pre-req.: PHYS 451

**PHYS 461 Electricity and Magnetism I**

Provides mathematical treatment of the theory of electricity and magnetism with emphasis on electrostatic fields, the electric potential, and an introduction to the laws of magnetic interactions. Lec 3 hrs. Prereq 1539-202, 1539-254

**PHYS 462 Electricity and Magnetism II**

Continues electricity and magnetism I, including the study of electromagnetic induction, linear networks, dielectric and magnetic materials, Maxwell's equations, and electromagnetic waves Lec 3 hrs Prereq 1539-461

**PHYS 471 Quantum Mechanics I**

Introduces the origins of quantum mechanics, the one dimensional Schrodinger equation for simple systems, the formalism of quantum mechanics, quantum mechanics for three dimensional systems, and identical particles. Lec 3 hrs Prereq 1539-203, 1539-254

**PHYS 472 Quantum Mechanics II**

Continues Introduction to Quantum Mechanics I. Covers time independent perturbation theory, time dependent perturbation theory, the variational principle, the WKB approximations and scattering theory. Lec 3 Prereq 1539-471

**PHYS 481 Mathematical Methods of Physics I**

Examines several topics in mathematics of special importance in physical sciences. Includes vector and tensor analysis, integration in the complex plane, boundary value problems, and special functions. Emphasises the physical interpretation of problem solutions. Lec 3 hrs Prereq 1539-382

**PHYS 482 Mathematical Methods of Physics II**

Continues Mathematical Methods of Physics I with applications to the topics related to real physical problems. Lec 3 hrs Prereq 1539-481

**PHYS 499 General Examination in Physics**

Involves reading problems and a weekly discussion in a seminar setting. Requires a passing grade on the Departmental's general examinations. Lec 1 hr Prereq Permission of Chairperson.

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**MATHEMATICS**

**MATH 105 Intermediate Algebra (3)**

Develops basic geometric ideas, the real number system and algebraic expressions, radicals, rational expressions, first degree equations and inequalities, quadratic equations, the Cartesian plane, and systems of equations. Provides intermediate algebra instruction for students with competence in introductory algebra but who require additional preparation prior to enrollment in courses that lead to calculus (e.g., MATH 113 or MATH 115).

Lec. 3 hrs. Prereq.: appropriate score on the Mathematics Placement Test.



**MATH 113 Pre-Calculus with Trigonometry I (3)**

Examines algebraic notation and symbolism, exponents and radicals, algebraic functions, solution of linear and quadratic equations and inequalities, relations and functions, rational functions and graphs, conic sections, exponential and logarithmic functions and graphs. Provides instruction primarily for students preparing to take calculus. Lec. 3 hrs. Prereq.: MATH 105 **Important note:** credit will be given for only one of MATH 113 or MATH 115.

**MATH 114 Pre-Calculus with Trigonometry II (3)**

Continues MATH 113. Examines trigonometric functions, identities, and the applications. Includes solving trigonometric equations, exploring systems of equations and inequalities, examining operations with complex numbers, polynomials, and mathematical induction. Lec. 3 hrs. Prereq.: Math 113. **Important note:** credit will be given for only one of MATH 114 or MATH 115.

**MATH 115 Pre-Calculus Intensive (3)**

Covers all the material in MATH 113 and MATH 114. Designed for students who have three or four years of secondary school mathematics. The technical laboratory is an integral part of the course. Students taking MATH 115 must take the same section of MATH 120. Lec. 3 hrs. Co-req: MATH 120; Prereq.: Completion of algebra, geometry, and trigonometry in high school and permission of the Department of Mathematics. **Important note:** credit will be awarded for only one of the following sequences: MATH 113, MATH 114 or MATH 115.

**MATH 120 Pre-Calculus Intensive Lab (1)**

Uses technology to provide visual and/or numerical support when solving problems by algebraic methods and when algebraic methods are impossible or impractical. Students taking MATH 120 must take the same section of MATH 115. Lab. 2 hrs. Co-req: MATH 115.

**MATH 116 Finite Math (3)**

Investigates systems of linear equations, matrices and linear programming, elementary functions, especially logarithmic and exponential functions, and applications to business situations. Lec. 3 hrs. Prereq.: Math 105 or appropriate scores on the Mathematics Placement Test.

**MATH 151 Calculus I (3)**

Develops concepts and skills for limits and continuity. Also covers derivatives and the applications, integrals, The Fundamental Theorem of Calculus, and elementary transcendental functions. Computer laboratory is an integral part of the course. Lec. 3 hrs. Co-req.: MATH 155; Prereq.: MATH 151 or permission of the Department of Mathematics.

**MATH 152 Calculus II (3)**

Continues Math 151. Explores further applications of the integral, and techniques of integration. Additional topics include the calculus of one variable, analytic geometry, sequences, and infinite series. Computer laboratory is an integral part of the course. Lec. 3hrs. Co-req: MATH 156; Pre-req.: Math 151 or permission of the Department of Mathematics.

**MATH 155 Calculus I Lab (1)**

Explores theoretical concepts and applications of Calculus I (MATH 151). Provides an experimental environment designed to employ symbolic, numerical, and graphics capabilities of a computer algebra system. Lab. 1 hr., Co-req.: MATH 151.

**MATH 156 Calculus II Lab (1)**

Explores theoretical concepts and applications of Calculus II (MATH 152). Provides an experimental environment designed to employ symbolic, numerical, and graphics capabilities of a computer algebra system. Lab. 1 hr., Co-req.: MATH 152.

**Math 176 Introduction to Mathematical Concepts (3)**

Examines elementary set theory and logic. Involves axiomatic systems taken from both numbers and geometry, mathematical induction, basic techniques for structuring and performing elementary proofs, and mathematical systems. Provides instruction

primarily for mathematics majors. Lec. 3 hrs. Prereq.: MATH 152, and PHIL 105.

**MATH 185 Elementary Statistics I (3)**

Introduces concepts and techniques of probability and statistics, including measures of central tendency and dispersion. Also includes probability and probability distributions, correlation, and regression. Also introduces statistical inference and computer applications using Minitab. Lec. 3hrs., Prereq. Math 105.

**MATH 186 Elementary Statistics II (3)**

Continues MATH 185. Develops concepts, skills, and applications for hypothesis testing. Also includes analysis of variance, the chi-square distribution, correlation and regression analysis in addition to non-parametric statistics and computer applications using Minitab. Lec. 3 hrs. Prereq.: MATH 185.

**MATH 215 Calculus for Business, Economics, the Social and Life Sciences (4)**

Presents concepts and skills on limits and continuity. Examines differential and integral calculus with applications from business, economics, and the social and biological sciences. Lec. 4 hrs. Prereq.: MATH 113, MATH 116 or equivalent.

**Math 220 Discrete Mathematics (3)**

The course examines counting principles, logic, set theory, functions, properties of the natural numbers and of the integers, mathematical induction, complexity of algorithms, matrices, relations, and graph theory. It provides instruction primarily for engineering and computer science students.

**Prereq.** MATH 113 or the permission of the Department of Mathematics is required. **Important Note:** *MATH 213 does not meet the requirements for a major in mathematics*

**MATH 225 Linear Algebra (3)**

Investigates systems of linear equations and methods of solution, matrices and matrix solutions of linear systems, and matrix algebra. Also involves determinants, vectors, and vector spaces. Examines linear transformations, inner products, and norms. Lec. 3 hrs. Prereq.: MATH 151 or permission of the Department of Mathematics.

**MATH 253 Calculus III (3)**

Continues MATH 152. Provides additional topics in the calculus of several variables, vector and analytic geometry in space, vector-valued functions, partial differentiation, multiple integration, and integration of vector fields. Also includes Green's, Stokes', and Gauss' Theorems. Computer laboratory is an integral part of the course. Lec. 3 hrs. Co-req.: MATH 255; Prereq.: MATH 152 or permission of the Department of Mathematics.

**MATH 254 Differential Equations (3)**

Examines first order equations, linear and systems of linear differential equations, higher order equations, and first order equations with non-constant coefficients. Also covers applications series solutions, and Laplace Transform solution of partial differential equations as well as elliptic and hyperbolic equations. Lec. 3 hrs. Prereq.: MATH 253 and MATH 225 or permission of the Department of Mathematics.

**MATH 255 Calculus III Laboratory (1)**

Explores theoretical concepts and applications of Calculus III (MATH 253) in an experimental environment designed to employ symbolic, numeral, and graphics capabilities of a computer algebra system. Lab 2 hrs. Co-req.: MATH 253.

**MATH 260 Differential Equations with Linear Algebra (4)**

Covers ordinary differential equations and topics from linear algebra and the applications to differential equations. Examines first order equations, higher order equations systems of first order linear differential equations, matrices, determinants, vector spaces, eigenvalues, and other selected topics from Linear Algebra. Provides instruction for mathematics, science, and engineering students. Lec. 4 hrs. Prereq.: MATH 253 or permission of the Department of Mathematics.



**MATH 315 Number Structures with Applications (3)**

Introduces the real number system, its subsystems, and applications. Includes the elementary number theory. Lec. 3 hrs. Prereq. MATH 151 or MATH 215 or permission of the Department of Mathematics.

**MATH 316 Number Theory (3)**

Examines divisibility, numerical functions, the arithmetic of congruency classes, solving congruence's, theory of primitive roots, and quadratic reciprocity. Lec. 3 hrs. Prereq.: MATH 151 or permission of the Department of Mathematics.

**MATH 335 Classical Geometry (3)**

Investigates plane and solid Euclidean geometry from a theoretical and historical perspective, including congruence; parallel postulate and its consequences. Also covers similarity, area and area functions, constructions, volume, and elementary transformations of the plane. Lec. 3 hrs. Prereq.: MATH 151 or permission of the Department of Mathematics.

**MATH 351 Advanced Calculus I (3)**

Explores completeness and order properties of the real numbers, sequences and their limits, the Bolzano-Weierstrass and Heine-Borel theorems. Also covers limits and continuity, and theory of differentiation and integration as well as infinite series of numbers and infinite series of functions. Lec. 3 hrs. Prereq.: MATH 253 and MATH 176, or permission of the Department of Mathematics.

**MATH 352 Advanced Calculus II (3)**

Continues MATH 351. Examines  $n$ -dimensional Euclidean space and its topology, convergence of sequences, metric spaces, differentiation and integration of functions and several variables, and vector analysis. Lec. 3 hrs. Prereq.: MATH 351 or permission of the Department of Mathematics.

**MATH 381 Probability and Statistics (3)**

Explores mathematical models of random phenomena, basic probability theory, discrete probability spaces, combinatorial methods, conditional probability, independent and dependent events. Also examines Bernoulli trials, Markov chains, fluctuations in coin-tossing and random walks, distribution functions, mean and variance of a probability law, notion of average, and expectation of a function. In addition, investigates the normal, Poisson, exponential, gamma, and related probability laws, and computer applications using Minitab. Lec. 3 hrs. Prereq.: MATH 152 or permission of the Department of Mathematics.

**MATH 382 Probability with Applications (3)**

Continues MATH 381. Examines approximations of binomial and Poisson distributions by the normal distribution, probabilities of functions of random variables, law of large numbers, central limit theorem, related topics, statistical inference, and hypothesis testing. Also covers computer applications using Minitab. Lec. 3 hrs. Prereq.: MATH 381. Co-req.: MATH 253 or permission of Department of Mathematics.

**MATH 385 Introduction to Regression Analysis and its Application (3)**

Introduces simple and multiple linear regression, stepwise regression procedure, and regression diagnostics, including residual analysis, collinearity and scaling problems. Also covers computer applications using Minitab or SPSSX. Lec. 3 hrs. Prereq.: MATH 381 or permission of the Department of Mathematics.

**MATH 386 Analysis of Variance and its Application (3)**

Introduces and illustrates design of experiments and analysis of variance, randomized blocks, factorial analysis, and Latin Square designs, and analysis of covariance. Includes computer applications using Minitab or SPSSX. Lec. 3 hrs. Prereq.: MATH 385 or permission of the Department of Mathematics.

**MATH 393 Theory and Applications of Mathematics (3)**

Explores structure of a mathematical system including sets and whole numbers, sets and arithmetic, system of whole numbers, base-ten arithmetic, arithmetic in bases other than ten, and elementary number theory. Also covers system of integers, system of rational numbers, decimal expansions and real numbers, the metric system, probability, and statistics. Provides instruction for

students who intend to teach in elementary school. Lec. 3 hrs.

Prereq.: MATH 102 or permission of the Department of Mathematics.

**MATH 394 Informal Geometry with Applications (3)**

Investigates intuitive plane geometry, measurement and coordinate geometry, elementary logic, geometric constructions, and Pythagorean Theorem. Provides instruction for students who intend to teach in elementary school. Lec. 3 hrs. Prereq.: MATH 393 or permission of the Department of Mathematics.

**MATH 409 History of Mathematics (3)**

Investigates, among other topics, mathematics of early humans, the real number system, and the role of the ancient civilizations in its development. Also covers mathematics during the Dark Ages of Europe, mathematics during the Renaissance, and contributions of Africans, Asians, and non-Europeans to the development of mathematics. Lec. 3 hrs. Prereq.: MATH 152 or permission of the Department of Mathematics.

**MATH 411 Abstract Algebra I (3)**

Studies binary operations, groups and subgroups, permutations, cyclic groups, isomorphism's, direct products, finitely generated Abelian groups, homomorphism's normal subgroups and factor groups, and series of groups. Lec. 3 hrs. Prereq.: MATH 176 and MATH 225 or permission of the Department of Mathematics.

**MATH 412 Abstract Algebra II (3)**

Continues MATH 411. Investigates rings, integral domains, fields and fields of quotients of integral domains, quotient rings and ideals. Also includes homomorphism of rings, polynomials, factoring polynomials over a field, extension fields, splitting fields, separable extensions, finite fields, and Galois Theory. Lec. 3 hrs. Prereq.: MATH 411 or permission of the Department of Mathematics.

**MATH 425 Advanced Linear Algebra (3)**

Examines vector spaces, dual spaces, and canonical forms. Also covers eigenvalues and eigenvectors, inner product spaces, and spectral theory and applications. Lec. 3 hrs. Prereq.: MATH 176 and MATH 225, or permission of the Department of Mathematics.

**MATH 431 Modern Geometry I (3)**

Explains the foundation and structure of how geometry develops, including projective, Euclidean, non-Euclidean and finite geometries studied by means of transformations and axiom systems. Lec. 3 hrs. Prereq.: MATH 176 and MATH 225 or

**535 432 Modern Geometry II(3)**

Continues MATH 431. Studies algebraic projective geometry; linear algebra; vector algebra; generalized coordinate systems, and linear transformations. Lec. 3 hrs. Prereq.: MATH 431 or permission of the Department of Mathematics.

**MATH 435 Differential Geometry (3)**

Develops tangent vectors, normal planes, curvature, principal normals, torsion, Frenet equations, co-ordinate systems, tangent planes, and normal lines. Also involves the first and second fundamental forms, normal and principal curves, Gaussian, and mean curvature. In addition to the fundamental theorem of surfaces, applications of multilinear algebra to surfaces, geodesics, and differential forms. Lec. 3 hrs. Prereq.: MATH 254 or MATH 260, and MATH 352 or permission of the Department of Mathematics.

**MATH 445 Topology (3)**

Examines open sets, topologies, closed sets, neighborhoods, limit points, and closures and interiors. Also covers derived sets, bases, continuity, homeomorphisms, and connectedness and compactness. Lec. 3 hrs. Prereq.: MATH 176 or permission of the Chairperson of the Department of Mathematics.

**MATH 451 Real Analysis I (3)**

Examines metric spaces, the Bolzano-Weierstrass theorem, Cantor sets, sequences of functions, Borel sets and Baire functions. Also examines well orderings, measure and measurable sets, and Lebesgue integration and measure. Lec. 3 hrs. Prereq.: MATH 352 or permission of the Chairperson of the Department of Mathematics.



**MATH.452 Real Analysis II (3)**

Continuation of MATH 451. Includes Banach and Hilbert spaces, the Hahn-Banach theorem, the open-mapping theorem, operators, dual and double dual spaces, and reflexive Banach spaces. Lec. 3 hrs. Prereq.: MATH.451 or permission of the Chairperson of the Department of Mathematics.

**MATH 461 Complex Analysis I (3)**

Investigates complex numbers and their geometry, functions and limits, derivatives and elementary functions, line integrals, and Cauchy's theorems and applications. Also includes power and Laurent series, and residues and applications. Lec. 3 hrs. Prereq.: MATH 351 or permission of the Department of Mathematics.

**MATH 462 Complex Analysis II (3)**

Continues MATH 461. Further examines topics in power series, conformal mappings, and harmonic functions and their applications. Lec. 3 hrs. Prereq.: MATH 461 or permission of the Department of Mathematics.

**MATH 475 Mathematical Logic (3)**

Includes propositional logic and predicate logic. Also covers the formalization of arithmetic and Gödel's theorems, and applications to automata and data structures. Provides instruction for students who have had some experience proving theorems and desire a rigorous introduction to the foundations of mathematics. Lec. 3 hrs. Prereq.: MATH 411 or permission of the Department of Mathematics.

**MATH 480 Mathematical Statistics I (3)**

Explores distribution and functions of random variables, sampling theory, order statistics, point estimation, confidence intervals, and introduction to tests of hypothesis and analysis of variance from mathematical point of view. Usually offered every fall. Lec. 3 hrs. Prereq.: MATH 351 and MATH 382 or permission of department.

**MATH481 Mathematical Statistics II (3)**

Continues MATH 480. With generating functions; maximum likelihood techniques, tests of hypothesis, and analysis of variance and linear regression from mathematical point of view. Special topics include Bayesian procedures and applications. Includes computer applications using MINITAB, SPSS or SAS. Usually offered every spring. Lec. 3 hrs. Prereq.: MATH 480 or permission of the department.

**MATH 482 Numerical Analysis I (3)**

Two-semester course which introduces basic computational methods for nonlinear equations, acceleration of convergence, interpolation, approximation, and numerical differentiation and integration. Supplements theoretical study with computer programming assignments. Lec. 3 hrs. Prereq.: MATH 152 and competency in a programming language or permission of the Department of Mathematics.

**MATH 483 Numerical Analysis II (3)**

Continues MATH 482. Investigates initial value problems for ordinary differential equations, direct and iterative methods for solving systems of linear equations, the symmetric eigenvalue problem, and the least squares problem. Includes computer programming assignments. Lec. 3 hrs. Prereq.: MATH 225, MATH 482 and either MATH 254 or MATH 260 or permission of the Department of Mathematics.

**MATH 485 Mathematical Modeling (3)**

Introduces mathematical techniques in modeling the behavior of various systems. Includes linear programming and differential equations. Lec. 3 hrs. Prereq.: MATH 254 or MATH 260 or permission of the Department of Mathematics.

**MATH 490 Senior Seminar (1)**

Describes methods of presenting seminars, new mathematical discoveries, career opportunities in mathematics, and other topics not covered in formal courses. Serves as a requirement for all senior mathematics majors. Lec 1 hr., Prereq.: Math 351, MATH 411, and

senior status in mathematics or permission of the Department of Mathematics.

**MATH 495 Independent Study**

**VC (1-6)**

Explores a mathematical topic not covered in any other undergraduate course. May be repeated for credit, but no more than six credit hours will be awarded. Offers independent study under the direction of a faculty member. Prereq.: An agreement with an instructor describing the subject matter, method of study, and written approval of the Chairperson of the Department of Mathematics.

**Mathematics Graduate Courses**

**Survey of Probability and Statistics (3 credits)**

Survey of statistics and probability. Topics include design of experiments and data production, descriptive techniques for univariate and bivariate data, measurement error, probability and probability distributions, and sampling error and its measurement. Also introduces estimation, hypothesis testing, probability models, and tests. Prerequisite: Admission to the Master of Science in Applied Statistics Program.

**Math 574 Probability Theory (3 credits)**

Introduces the mathematical theory of probability. Topics include combinatorial analysis, conditional probability, stochastic independence, probability distributions of random variables, probabilistic foundations of statistics, limit theorems, and the law of large numbers. Introduces computer applications using statistical software such as SAS or MINITAB.

**Math 583 Mathematical Statistics I (3 credits)**

The first of a two-semester sequence designed to give a rigorous introduction to statistical theory. Topics include a review of probability and random variables, expectation, univariate parametric families, multivariate parametric families, and asymptotic distributions. Prerequisite: Probability Theory: Math 574

**Math 584 Mathematical Statistics II (3 credits)**

Math/Stat II is the second part of a two-semester sequence course designed to familiarize students with the mathematical theory of statistical inference. Topics include estimation, hypothesis testing, analysis of variance, and statistical decision theory, application of statistical tests and modern statistical approaches to improve the quality of data. Prerequisite: Mathematical Statistics I: Math 583

**Math 585 Statistical Modeling (3 credits)**

Examines simple and multiple regressions, partial correlation, residual analysis, stepwise model building, a study of statistical methods for data analysis using computerized statistical procedures, and application of multivariate statistical techniques to multidimensional datasets. Also covers the theory and methods for one way, two ways ANOVA with the applications of covariance as well as techniques for estimating bias and computing standard errors (i.e. Boots Trophy) Prerequisite: Math 584 and Math 599

**Math 586 Design of Experiments and Analysis of Variance (3 credits)**

Review of regression concepts, power analysis and sample size, simple random, systematic, stratified, cluster, multistage, and double sampling. Also includes multiple regression and logistic regression analysis, analysis of variance and covariance. In addition, the course introduces measurement error.

**Math 599 (Selected topic section 01) Data Analysis with SAS (3 credits)**

Introduces fundamental SAS programming concepts, Covers how to prepare data for analysis, read data files, build logical expressions, combine and transform several data sets. Also introduces different statistical procedures. Topics include a single variable analysis, multivariate analysis of continuous and discrete random variables, regression, non-linear models, GLMs, time-series analysis, analysis of variance and factorial analysis. Useful for people who import/export data, create, manipulate, and restructure data. A graduate course that can be offered to advance undergraduate students as well.



**Math 599 (Selected Topic Section 02) Research Methods, Statistics and Data Mining (3 credits)**

Examines the basic methods and techniques of scientific research. Provides techniques for understanding, interpreting, and using data to predict future outcomes of a certain process or phenomenon. Examines the principles of statistical data mining, including the foundation of probability and data analysis, modeling, data mining algorithms, patterns, and rules of discovering. Introduces different hands-on applications of data mining techniques.

**Math 610 Exploratory Data Analysis and Non Parametric Statistical Methods (3 credits)**

Survey of non-parametric statistical methods including the sign test, Wilcoxin-Rank Test, the Kruskal- Wallis Test, and the Kolmogoroff-Smirnoff Test. Discusses the use of ranks to test equality of distributions and the parameters of distributions. Stresses the use of computer applications.

Co-rerequisites: Probability Theory (Math 574) and Data Analysis with SAS (Math 599) Math 645 Topics in Statistics (variable credit)

**Biostatistics (3 credits)**

Examines techniques of biostatistics inference. Topics include statistical power and sample size ,computation, diagnostic tests, analysis of binary response data, adjusting for covariate model, logistic regression. Also covers survival data analysis (Kaplan-Meier approach), resampling procedures (randomization), longitudinal data and repeated measurement analysis using R. Procedures will be illustrated using actual laboratory and clinical data whenever possible. Prerequisite: Regression Analysis: Math 585 and Data Analysis with SAS: Math 599 Multivariate Analysis (3 credits)

**Math 650 Seminar on Statistical Consulting and Research (3 credits)**

This course provides an introduction to the skills necessary to provide competent statistical service. Topics include: time management; preparation necessary to understand the specific requirements of a client; effective and accurate oral and written communication of requirements and results of statistical analysis; and business considerations of the independent consultant.

**Math 625 Time Series Analysis (3 credits)**

Designed to familiarize students with analysis and forecasting of real data. Topics include fundamental concepts of time series and stochastic processes, stationary and non-stationary time series, autoregressive integrated moving average (ARIMA), modeling, forecasting of univariate time series, estimation of special density functions, white noise tests, and tests of periodicities. Prerequisite: Regression Analysis: Math 585

**Math 630 Contingency Table Analysis (3 credits)**

Introduces discrete multivariate analysis, model testing and validation. Also includes general hypothesis testing. Topics to be covered include 2 x 2 tables, the cross-product ratio, and R x C tables of arbitrary dimension,. Use of loglinear computer packages to help in the analysis will be essential.

Prerequisite: Probability Theory: Math 574 Co-rerequisite: Data Analysis with SAS: Math 599 or Equivalent

**Math 655 Approved Internship**

Complete an approved internship together with a related Project.

**Math 660 Expository Thesis**

Write and defend an expository thesis under the direction of a permanent member of the Department of Mathematics and Statistics

**CRIMINAL JUSTICE**

**CRIM 100 Criminal Justice System (3)**

Introduces the criminal justice system, its main organizational components, policies, and procedures. Also examines the social, political, and cultural considerations that have influenced and shaped the system's policies and practices.

**CRIM102 Criminology (3)**

Introduces the study of crime using computer software applications. Explores different types of crime and the issues of crime analysis. Designed to present students with the importance of a geographical and demographic analysis of the incidence of crime.

**CRIM 111 Contemporary Police Systemsand Problems (3)**

Examines the philosophy of modern police systems in the U.S. Evaluates the purposes of the organization, jurisdiction, and law enforcement methods of specific law enforcement agencies.

**CRIM 115 History and Philosophy of Corrections (3)**

Traces the evolution of modern-day correctional thought in the United States, the development of institutional programs and architectural design, and the impact of theoretical and practical research on correctional standards and practices.

**CRIM 150 Justice Issues in Society (3)**

Examines a variety of contemporary justice issues in order to study the economic, political, and social basis of crime. Using a critical reasoning model, students develop a methodology of analytical reading and writing in order to study how social problems relate to crime and public safety issues.

**CRIM 175 Introduction to Geo-Spatial Analysis (3)**

Introduces the study of crime using mapping and special analysis to understand the relationship between geo-spatial environment and human habitation. Utilizes crime mapping techniques as well as quantitative and qualitative methodologies to explore topics of crime causation and analysis from a geo-spatial perspective. CRIM 100, 102

**CRIM 203 Forensic/ Investigation (3)**

Introduces the field of forensic science. Examines the application of science and technology to crime scene analysis. Explores the use of Utilizes computers, as well as be traditional laboratory equipment in criminal analysis. Prereq.: CRIM 100, 102, 175,232

**CRIM 221 Investigations (3)**

Explores methods and techniques of investigation, with emphasis on criminal investigations. Covers crime scene search, development of leads, recognition, handling and preservation of evidence, witness identification, and techniques of interview. Prereq.: CRIM 100, 102, 111, 232.

**CRIM 222 Criminal Procedure (3)**

Focuses on the procedural requirements of the fourth, fifth, and sixth amendments to the U.S. Constitution through a study of historical? Supreme Court cases. CRIM 100, 102,

**CRIM 224 Issues in Criminal Law (3)**

Examines issues and principles in criminal law utilizing legal concepts. Explores these issues and principles not only from the perspective of what is required (or prohibited), but from the implications and impact of the requirement or prohibition. Examines the systemic perspective as well as the manner in which various societal groups are advantaged or disadvantaged. AAlso covers conditions of pretrial release, grand jury, elements of offenses, affirmative defenses (such as insanity, entrapment), and sentencing and explores contemporary issues in criminal law. Prereq.: CRIM 100, 102 and 232.

**CRIM 232 Criminal Behavior (3)**

Introduces the scientific study of behavior. Usesg a variety of behavioral problems to examine how criminologists study crime and criminal behavior. CRIM 100,102,175.

**CRIM 234 Juvenile Justice (3)**

Studies the complexity of juvenile delinquency as a behavioral pattern through the examination of contemporary cultural and ecological environments and the differing theories of delinquent behavior. Examines the juvenile court and focuses on special constitutional and legal concerns facing juvenile offenders. CRIM 100,102, 175,232.

**CRIM 235 Probation, Classification and Parole (3)**





Covers general probation and parole objectives, methods, and procedures, including a working knowledge of the duties of the correctional treatment specialist. Explores the review and formulation of routine? standard? case studies and understanding of the principles and methods involved. Prereq.: CRIM 100, 102, 115, 232.

**CRIM 271 Dynamics of Human Relations (3)**

Introduces theoretical analysis, current research findings, models of helping methods, intervention Provides opportunities to role play and assess human behavior and interaction, then evaluate and provide feedback. Prereq.: CRIM 100, 102, 232.

**CRIM 272 Conflict Resolution and Mediation Techniques (3)**

Examines the characteristics of these two approaches to determine each method's effective as both prevention and intervention techniques in avoiding or reducing violent confrontations. Develops an understanding of how appropriate use of these approaches can facilitate interaction between the criminal justice system practitioner and individuals involved in one-on-one engagements. Provides an opportunity to role play and assess behavior, and to interact , evaluate, and provide feedback. Prereq.: CRIM 102, 232, 271.

**CRIM 294 Special Topics (3)**

Explore a variety of topical course offerings including (but not limited to) Homicide; Technology, Privacy and Justice in the 21st Century; Victimology; Female Offenders; Domestic Violence; Gangs and Gang Behavior; Cybercrime and Terrorism in the United States; and Weapons of Mass Destruction.

**CRIM 300 Constitutional Law (3)**

Through a study of prominent U.S. Supreme Court cases, explores federalism and separation of powers issues. Analyzes the authority to promulgate criminal laws and policy initiatives in relationship to these issues. Prereq.: CRIM 102, 222, 224.

**CRIM 301 Correctional Operations (3)**

Studies basic organization and objectives of a department of corrections. Examines specific administrative principles required for the effective conduct and operation of a correctional organization. Explores relationships among the following institutional units: custodial force, treatment staff, clerical, culinary, maintenance staffs, and residents. Prereq.: CRIM 115.

**CRIM 302 Police Community Relations (3)**

Examines various approaches to community-based policing and the relative advantages and disadvantages of each approach. Also examines the implications of the diversity within the Washington, D.C. community, the operations of the various community organizations in the city, and the barriers existing which hinder effective community policing. Emphasizes the development of methodologies for increasing constructive interaction between the police and residents. Prereq.: CRIM 111, 232, 271, 272.

**CRIM 303 Comparative Criminal Justice Systems (3)**

Examines and compares the criminal justice system in the United States with a select group of other nations. Prereq.: CRIM 100.

**CRIM 305 Administration in Criminal Justice (3)**

Examines the organizational design, mission statements, staff roles, and relationship between administrative processes and outcome objectives of criminal justice agencies. Emphasizes the interrelationship of program goals, organizational design, and budget preparation. Prereq.: CRIM 100, 102.

**CRIM 309 Justice in a Multicultural Society (3)**

Examines in broad historical outline the critical importance of race and similarly categorical distinctions (such as sex and religion) on the patterns of American society and how these patterns have affected the criminal justice system. Develops practical model for understanding racism which may be applied in a variety of settings. Prereq: Junior or senior classification.

**CRIM 390 Practicum (3)**

Provides a conceptual framework for reality testing of curriculum-related assumptions and strategies with cooperating public and private agencies. Course includes a ninety-hour internship. Prereq.: CRIM 100, 102, 232 and Junior or senior classification.

**CRIM 402 Community-Based Correctional Programs (3)**

Examines problems of work-release and school-release programs and institutional inmates, including an administration of half-way houses, nonresidential programs for probationers, parolees, and drug abusers. Also explores community residences for juvenile offenders and supervision of foster care programs. Prereq.: CRIM 115

**CRIM 405 Organized Crime in the United States (3)**

Examines the historic origins, organizational structure and method of operation, and goals and objectives of organized crime in the United States. Prereq: Juniors or seniors.

**CRIM 450 Research in Justice Systems (3)**

Laboratory course which covers the logic of scientific inquiry and its relationship to qualitative and quantitative research methodologies as applied to the justice field. Emphasizes the use of computer-based statistical programs, as well as other computer-based criminal justice research programs. Co-req.: CRIM 451. Prereq: CRIM 100, 102, 232, 234, Junior Standing.

**CRIM 451 Research in Justice\ Statistical Lab (1)**

Introduces advanced statistical techniques used in criminal justice research. Co-req.: CRIM 100, 102, 232, 234, Junior Standing.

**CRIM 460 Theories of Planned Change: Society, the Environment, and Justice (3)**

Examines theories and practices of both institutional and social change as these apply in the area of criminal justice. Analyzes and critiques a variety of intervention models applicable to criminal justice utilizing computer-based forecasting and prediction methodologies. Develops an understanding for the necessity of thorough anticipation of both manifest and latent functions of any planned change. Prereq.: Junior standing.

**CRIM 464 Evidence (3)**

Covers the rules of evidence applicable in criminal cases which derive from a statutory or case law background, including, but not limited to, hearsay, presumptions and inferences, and documentary evidence. Excluded are those evidentiary exclusions included in the U.S. Constitution. Prereq.: Junior or senior standing.

**CRIM 491 Senior Project (3)**

Capstone course which requires, in consultation with faculty, a senior thesis paper on a criminal justice topic of the student's choice. Prereq.: Criminal Justice seniors only and CRIM 450, 451, 497.

**CRIM 495 Independent Study (VC)**

Involves a program of reading and reporting planned and carried out under the guidance of a faculty member. The topic, issue, or area of student interest must concern a problem in the administration of justice, constitutional or criminal law or procedure, corrections (including probation and parole), or law enforcement. Prereq.: Junior or senior standing and a 3.2 average in courses in the field.

**CRIM 496 Reading Course in Justice Systems (3)**

Seminar course involving a series of individual readings from an assigned reading culminating in an engaged discussion and analysis of issues raised by the readings related to the criminal justice system. Prereq.: Junior or senior standing.

**CRIM 497 Program Design and Evaluation Techniques (3)**

Investigates the techniques used to design, implement, and present the results of research culled from justice program evaluations. Prereq.: CRIM 450, 451.



## SOCIOLOGY

### **SOCY 111 Introduction to Sociology (3)**

Explores society through the lens of direct interaction, institutions, and whole social systems. Examines the basic concepts and methods of sociology with a specific focus on the U.S. and other advanced industrial societies.

### **SOCY 244 The Family (3)**

Examines families in their social and historical contexts. Considers the various forms of the family appearing in different stages of societal development and the relationships to other social institutions. Focuses specifically on the internal dynamics of families through the life cycle.

### **SOCY 245 Sociology of the Black Community (3)**

Explores the primary social structures and institutions of Black communities which evolved as a result of racism, as creative responses within a racial context, and as independent cultural developments.

### **SOCY 254 Black Social Movements (3)**

Studies the dynamics of social movements in Black societies from origin, to development, to institutionalization and/or demise. Examines the conditions leading to social mobilization, the internal dynamics and external alliances, and the effects on the larger society. Emphasizes African-American movements.

### **SOCY 264 Small Group Dynamics (3)**

Examines the phenomena of group dynamics by exploring the face-to-face interactions that form the basic unit of all social institutions. Increases self-awareness and effectiveness in working with others.

### **SOCY 265 Sociology of Urban Youth (3)**

Focuses on children and youth primarily in urban settings, with special attention to youth in the District of Columbia. Explores the environment of these youth as they struggle with the stresses of maturation. Includes international and cross-cultural perspectives.

### **SOCY 320 Research Methods (3)**

Explores the meaning, purposes, and basic techniques of social research. Develops research plans and research designs using quantitative and qualitative measures. Emphasizes survey research and on participant observation. Prereq.: SOCY 111 and completion of math requirements.

### **SOCY 321 Statistics for Social Research (3)**

Covers inferential statistics and sampling, including hypothesis testing, analysis of variance, multiple correlation, and experimental designs. Prereq.: SOCY 111 and math requirements.

### **SOCY 346 Social Stratification: Power and Inequality (3)**

Studies structured social inequalities, unequal distributions of power, and social mobility in societies stratified by caste, class, race, sex, and age. Examines data from various societies, including feudal, slave, and capitalist.

### **SOCY 354 Deviance and Social Control (3)**

Discusses deviant behavior and social control of individuals and groups in class and non-class societies. Also explores the processes of social control and resistance, and the roles of institutions including family, work, church, and state. Prereq.: Juniors and seniors only.

### **SOCY 356 Population Dynamics (3)**

Explores the social and cultural causes and consequences of population dynamics, drawing heavily on illustrations from past and contemporary studies of the population of the U.S. Examines the effects of factors such as population growth, migration, and increase in longevity, on the society. Prereq.: Junior standing.

### **SOCY 365 Sex Roles (3)**

Discusses sex and gender identities in class and non-class societies, with emphasis on modern economic, political, and cultural structures that determine the positions of men and women in contemporary society. Examines theories of sex roles. Includes

observations and discussions of sex role behavior in daily life. Prereq.: Junior standing.

## ANTHROPOLOGY

### **ANTH 113 Introduction to Anthropology (3)**

Introduces basic concepts approaches, and findings that highlight the study of how human cultures develop, with an emphasis on cultural anthropology.

### **ANTH 234 Black Societies in the New World (3)**

Examines Black societies in North, Central, and South America, and the Caribbean from historical and comparative perspectives. Examines the institutions and culture of the colonial and post-colonial periods.

### **ANTH 235 People and Cultures of Africa (3)**

Explores the economic, social, political, and religious features, examining the relationship between traditional and contemporary social forms.

### **ANTH 246 Ethnicity (3)**

Explores the interaction, cultural differences, and adaptive features of selected ethnic groups. Highlights interaction between dominant and minority groups in the United States and other societies.

### **ANTH 313 Physical Anthropology (3)**

Examines biological and cultural evolution and the interaction of the two. Demonstrates how human biology makes culture possible, and how culture makes human beings, considering human behavior as both genetic and learned. Traces the development of differences among human populations and examines the concept of race.

### **ANTH 474 Anthropological Theories In Perspective (3)**

Explores major, contemporary social theories, emphasizing the critical analysis of original sources and the comparison of different approaches to the study of human groups in society. Prereq.: Junior standing or permission of the instructor.

## Social Work

### **SOWK 110 Introduction to Social Welfare and Social Work (3)**

Survey course which introduces the fields of social welfare and social work. Explores the nature, purpose, and processes of social welfare as a public and private enterprise. Emphasizes the philosophical, theoretical, and operational aspects of social work as a professional practice.

### **SOWK 264 Concepts of Alcohol Abuse: Preventive Intervention Strategies (3)**

Investigates the basic issues surrounding the problem of alcoholic beverage abuse. Explores ideas concerning the use of terms "alcoholism," "alcoholic," "disease," and "treatment" through a historical perspective on beverage alcohol distillation, attitudes toward drinking, and the politics surrounding the production and sale of liquor. Discusses current treatment approaches and methods of control

### **SOWK 265 Theories of Drug Abuse: Preventive and Intervention Strategies (3)**

Examines the nature, history, and selected theories of drug use and drug abuse in the United States. Investigates the chemical properties and actions of narcotics, hallucinogens, and other consciousness altering substances. Examines the various attempts to control, treat, and prevent drug use and drug abuse.

### **SOWK 274 Introduction to Aging Studies and Special Problems of the Black Elderly (3)**

Introduces the field of Gerontology, including basic terminology, theories, and definitions as well as current perspectives on scientific and social issues. Examines demographic data on the Black aged and their strengths, needs and problems.



**SOWK 275 Ecology of Health, Illness, and Aging (3)**

Explores the physical and psychosocial aspects impacting on the health of the aged individual. Explores the epidemiology of disease patterns, norms of mental and physical health, morbidity, mortality and chronic illness rates, and common pathologies and impairment associated with aging. Also explores the social and economic implications in future health care for the elderly.

**SOWK 276 Introduction to the Economics of Aging (3)**

Introduces the problem of economic security in the elderly population. Compares past, present, and future trends in income maintenance, reviews current insurance, pension, and annuity plans, and introduces income supplements as special services and benefits. Also provides an overview of public laws and policies relating to income and services for the elderly and implications for changes which may influence the economic status of elderly Americans.

**SOWK 277 Working with Older People (3)**

Explores counseling services that older persons need to prepare for new careers, plan for retirement, and face the inevitability of death. Describes the various developmental crises of adulthood and methods of intervening. Includes an examination of theories and techniques of counseling along with interviewing techniques.

**SOWK 310 Social Welfare as a Social Institution I (3)**

Overview of the history, philosophy and development of the social work profession and of social welfare as an American institution. Traces the role of the profession as a foundational institution within American society its early beginnings to its evolved organization. Reflects on the social and political influences brought to bear on institutional development. Also examines the role and function of public and private human service agencies and service delivery systems and explores the historical progress of social work in the context of social policies developed to address social problems in civil society. Examines the impact of ideology, attitudes and values including those related to social and economic justice in the context of these evolving institutions. Prereq.: General education requirements in English, math, philosophy, natural science, and all pre-professional foundation courses required by the Social Work Program (Student should see their Social Work advisor).

**SOWK 311 Social Welfare as a Social Institution II (3)**

Explores the significance of social, economic and political factors that influence policy making and implementation and examines the content and process of social policy development. Examines social welfare policy issues (such as poverty, homelessness, and mental illness) and analyzes and critiques social welfare policy. Discusses several theoretically based approaches to policy analysis, in addition to strategies for achieving policy outcomes that reflect social and economic justice. Prereq.: SOWK 310 Social Welfare as a Social Institution I.

**SOWK 320 Human Behavior and Social Environment I (3)**

Focuses on the development of the individual from conception through middle childhood and the impact of various aspects of the social environment on the course of that development. Examines various environmental factors at the micro, mezzo and macro levels that influence and shape the physiological, psychological, and social aspects of human development and behavior. Prereqs.: General education requirements in English, math, philosophy, natural science, and all pre-professional foundation courses required by the Social Work Program (Students should see their social work advisor).

**SOWK 321 Human Behavior and Social Environment II (3)**

Continues SOWK 320, focusing on studying the development of the individual from early adolescence through very old age and the impact of various aspects of the social environments on human development. Prereq.: SOWK 310 Social Welfare as a social institution I and SOWK 320 Human Behavior and Social Environment I.

**SOWK 332 Social Work Practice I (3)**

First in a series of courses that prepares students with the knowledge, values and skills necessary for professional generalist social work practice. Examines the theoretical models, practice perspectives and approaches in practice with individuals families, groups, communities and organizations. Prereq: Must be taken concurrent with or following SOWK 321 Human Behavior and Social Environment II.

**SOWK 333 Social Work Practice II (3)**

Describes and elaborates the nature and purposes of the interactional process in generalist social work practice with a primary focus on the core process and skills used by the social work practitioner in the helping relationship and helping process with individuals and families. Prereq.: SOWK 332 Social Work Practice I and concurrent with or before SOWK490PracticumI.

**SOWK 334 Approaches to Group Work (3)**

Focuses on the use of groups in generalist social work practice. Introduces the history of social work practice with groups. Explores models of group development, process and dynamics in addition to group leadership skills over time; approaches to group work practice; an overview of four major group attributes about which the social work generalist must be sensitive, use of the ecological systems framework for generalist practitioners of social work with formal and informal groups; application of the ecological framework to problem solving in generalist practice in groups; and identification and application of social work generalist roles and skills in group settings. Special attention is given to preparing beginning generalists social work practitioners for work in settings where the race/ethnicity, gender, sexual orientation, social class, and experiences of oppression and marginalization of the client population may be different from that of the worker. . Pre-req./Co-req: This course must be taken following SOWK 332 and prior to or concurrent with SOWK 390 Practicum I.

**SOWK 340 Research in Social Welfare I (3)**

The first of two required courses on social work research for social work majors. Supports the generalist framework of practice and provides qualitative and quantitative research content enabling students to understand a scientific, analytic, and ethical approach to building knowledge for practice. Co-req./Pre-req.: This course must be taken concurrent with or after SOWK 311 Social Welfare as a Social Institution II and SOWK 321 Human Behavior and Social Environment II.

**SOWK 341 Research in Social Welfare II (3)**

Course is the second of two required courses on social work research. Designed to equip students with the knowledge and skill needed to critically evaluate literature, conduct survey research and evaluate program efficacy and use research knowledge to improve practice, policy, and social service delivery; and to evaluate social work practice. Prereq: SOWK 340. Research in Social Welfare I.

**SOWK 342 Research in Social Welfare Statistical Lab I (1)**

Laboratory course for SOWK340 and complementary to Research In Social Welfare I. Provides practical experience in the nature, forms, and applications of parametric statistics. Provides practice in the use of selected statistical models, e.g., measures of central tendency, and of variability, the normal curve, and standard scores. Co-req.: Must be taken concurrent with SOWK 340 Research. In social Welfare I

**SOWK 343 Research in Social Statistical Lab II (1)**

Course is complementary to Research in Social Welfare II. Provides practical experience in the nature, forms, and applications of parametric and nonparametric statistics. Explores the use of inferential models of statistical analysis. Co-req.: Must be taken concurrent with SOWK41 Research. In Social Welfare II



**SOWK 364 Concepts of Family and Child Welfare (3)**

Focuses on the knowledge and value base required for beginning social work practice in major family and child welfare settings. Explores the historical and philosophical contexts of family and child welfare. Major emphasis on service delivery systems and upon the tasks and requisite skills of the social worker in the performance of the social worker's role. Critiques the policy and practices of service systems in terms of effectiveness particularly for Black families and children. Prereq.: SOWK 320 Human Behavior and Social Environment I

**SOWK 367 Human Behavior and Social Structure (3)**

Explores how human behavior changes from normal to pathological. Emphasizes those forms of behavior characterized as deviant or pathological and often called "mental illness." Attention given to the etiology of such behavior and how its development may be influenced by biological, physiological, psychological, sociological, cultural, political, and economic factors. Explores the relevance and implications for the generalist social work practitioner. Prereq.: SOWK 321. Human Behavior and Social Environment II

**SOWK 398 Independent Study (VC)**

Provides an opportunity for supervised study of a particular problem or issue selected by the student in consultation with a faculty advisor. Designed for students who have shown potential for independent work on a research project. Students must submit a proposal describing the plan of study to the Program for approval one semester prior to registration for the course. Majors can take a maximum of six credit hours. Prereq.: Junior or senior status, permission of program director. Social work majors only.

**SOWK 433 Social Work Practice III (3)**

Focuses on frameworks and skills useful in decision making and action related and the macro change process with communities and organizations. Students work in groups to apply the problem solving process to a real live situation with a focus on large system impact and change.

**SOWK 464 Dynamics of Supervision in Social Work Practice (3)**

Explains the nature, purpose, and conduct of supervision in social work practice. Concentrates on how knowledge is developed about interactive supervisory roles and tasks, the process of supervision, and the problems with which it is concerned. Addresses specific strategies related to skill development as a supervisor. Prereq.: SOWK 332 or senior status.

**SOWK 477 Management of Extended Care Facilities (3)**

Presents the information necessary for the successful operation and management of extended care facilities. Focuses on the preparation and maintenance of physical facilities according to the standards prescribed by agencies such as housing, fire, and sanitation. Steps presented on how to administer, manage, and maintain the facility. Hands-on information provided on record keeping, budgeting, services available, nutrition, finance, insurance, and other relevant aspects.

**SOWK 478 Social Psychology of the End of Life (3)**

Introduces the concept of thanatology, the study of death and dying. Examines the philosophical, social, and psychological aspects of death and dying within the context of the life cycle.

**SOWK 490 Practicum I (5)**

The first component of a two (2)-part course that integrate and apply knowledge, skills, values and ethics learned in social work foundation courses to experiential agency-based learning. A combination of seminar and field instruction demonstrates generalist social work skills, knowledge and values, in social work practice. Students are placed in various agencies and organizations to learn through on-site social work supervised instruction and participation, complete a minimum of 200 hours in an agency/organization, and remain in the placement throughout the semester. Co-req./Prereq: Must take concurrent with or after SOWK 333 Social Work Practice II.

**SOWK 491 Practicum II (5)**

The second-component of a two-part course that continues the integration and application of knowledge, skills, values and ethics in agency-based learning. A combination of seminar and field instruction builds upon values, and are aimed at delivering practice experiences. Students continue their internship in the agency where placed during Practicum I. They must complete a minimum of 200 hours of generalist social work practice experiences and remain in the placement throughout the semester. Prereq: SOWK 490 Practicum I.

**SOWK SPECIAL TOPICS COURSES:**

**Working with Black Families in Urban Communities (3)**

Explores the challenges faced by black families from an historical and developmental perspective, and the strategies, strengths and capacities used to address those challenges. Equips students with the knowledge values and skills required for effective culturally competent practice with black families in contemporary urban communities. Emphasizes the use of appropriate theoretical models and perspectives including use of evidence-based approaches and sensitivity to each family's needs and interests. Incorporates national and local public policy perspectives to address the needs and interests of black families.

**Contemporary Youth: Risk and Resiliency (3)**

One of four practice courses designed to meet a three credit social work practice elective requirement for the major. Utilizes a risk and resiliency approach within a contemporary urban context to examine how youth interpret various events and relationships that they experience within their socio-ecological environments. The course focuses in three primary areas; 1) biopsychosocial-spiritual development of adolescents and emerging adults in urban communities, 2) protective and risk factors associated with urban adolescents and emerging adults and 3) prevention and intervention models utilized to address positive adolescent development. In addition, various environmental factors at the micro, mezzo, and macro levels that influence and shape the physiological, psychological, and social aspects of human development and behavior are examined along with how the individual affects these systems. Examines individuals as they operate within social systems of development within both traditional and alternative environments, urban organizations, neighborhoods, families, groups, and communities. Explores how discrimination and oppression impact human development and behavior among youth in contemporary urban communities.

**Mental Health Issues in Social Work practice (3)**

Required course for all social work majors. Examines historical and contextual factors that influence the prevalence and treatment of mental health problems in the African American community. Explores the social, economic, and cultural factors that contribute to mental health challenges in the African American community. Investigates the intersection between the intrapersonal (cognitive, individual factors), interpersonal (relationships), and environment and develop basic practice skills that support a generalist framework of social work for working with individuals with mental health challenges. Examines person-in-environment perspective; effects of oppression; mental health issues that affect different sub-populations of the African American community; utilization of kinship care and importance of family in the African American community; disparities in care among African American women and the elderly; and the Afrocentric Perspective.



## **HOMELAND SECURITY**

### **HLSC-530 Homeland Security (3)**

Introduces the study of national security issues such domestic and international terrorism, counter-terrorist and intelligence efforts, and the national response framework. Explores the use of case studies and case study analysis, as well as simulations to better understand the subject area content and system dynamics in terrorist threat detection and response.

### **HLSC- 531 Individual Rights & Liberties (3)**

Examines the "rule of law" and the tension between the individual rights and liberties guaranteed by the U.S. Constitution and national security concerns. Explores historical examples of how this tension has manifested in this country provides a framework within which to examine its contemporary manifestations. Also examines the challenges to privacy presented by an increasingly digital era.

### **HLSC -532 Terrorism**

Provides an overview of the typologies of terrorism both domestic and international, as well as the differing types of individuals who engage in terrorist activity. Explores the role of motivators in the emergence of terrorist activity, in addition to counter-terrorism strategies. Using case studies, simulations, and real-world events, examines the phenomena of terrorism in contemporary society. Offers the opportunity to explore a region, typology, or organization in-depth.

### **HLSC 533-Emergency Management**

Examines theories, principles, and practices of emergency management. Discusses the philosophy of comprehensive Emergency Management with the four attendant steps: mitigation, preparedness, response, and recovery. Explores federal laws affecting emergency operations and considers the location implications. Also examines the political processes and phenomena associated with mitigating the likely effects of catastrophic events, whether natural or man-made. Simulated emergency situations and utilization of virtual world environments provide opportunities to demonstrate application of course concepts.

### **HLSC 534 Weapons of Mass Destruction (WMD)**

Examines biological, chemical, radiological, nuclear and explosive weapons. Defines various weapons and U. S. policy, laws and regulations on WMD. Also explores terrorists' motives and use rationales. Assesses the effective of the All-Hazard Model's use in fighting the proliferation of WMD and evaluates the Geneva-Hague Convention Protocols and other international protocols relating to WMD use.

### **HLSC 535-Urban Spatial Analysis (3)**

Utilizing geographic information systems (GIS), evaluates and assesses urban population demographics, infrastructure, and governance as an aid and impediment in case of a high consequence event. Explores the unique needs of urban communities or communities possessing large numbers of vulnerable and disadvantaged populations within the context of "asset" modeling to facilitate community preparedness, response, and recovery.

### **HLSC 536-Intelligence and Security**

Provides an overview of conceptual competencies and skills expected of those involved in the support of national security and intelligence activities.

### **HLSC 537-Chemical Weapons (2)**

Explores the use of chemical agents as weapons of mass destruction. Describes the characteristics, physical properties, persistency, availability, decontamination, and treatment. Explores the use of chemical agents from an historical context to a present perspective.

### **HLSC 538-Biological Weapons (2)**

Explores the use of biological agents as weapons of mass destruction. Describes the characteristics, physical properties, persistency, availability, decontamination, and treatment. Explores the use of biological agents from an historical context to a present perspective.

### **HLSC 539-Nuclear, Radiological, & Explosive Weapons (2)**

Explores nuclear, radiological, and explosive (NRE) weapons. Describes the characteristics, physical properties, persistency, availability, decontamination, and treatment. Explores NRE weapons from a historical context to a present perspective.

### **HLSC 540-Cybercrime (3)**

Introduces the increasing types of crimes involving computers. Examines theoretical perspectives on computers and crime, and the significance of computers as a terrorist target. Focuses primarily on cybersecurity as a critical infrastructure concern and the increasing challenges presented by ever-growing and pervasive [cyber threats and the challenges of?]protecting cyberspace.

### **HLSC 550-Internship (3)**

Internship in an area of concentration to be selected by the student in consultation with the faculty advisor. Requires two-hundred and forty (240) hours of internship activity.

### **HLSC 553-Directed Study ( variable credit)**

Independent research conducted either by an individual student or a research team with faculty supervision.

### **HLSC 560-Special Topics (3)**

Special topics courses addressing a variety of contemporary, cutting-edge issues in the discipline. Students may enroll in more than one special topic course.

### **HLSC 570-Research Techniques (3)**

Overview of sources and types of data, as well as differing research methods in the justice, crime, and security field. Also addresses ethical standards in the conduct of research. Students explore in detail a method utilized in their chosen concentration.

### **HLSC 760-Thesis Project (variable credit)**

Students prepare and defend an original project based on their research or professional career interests. Requires a thesis in the student's concentration area of interest . The project may consist either of a traditional thesis or an in-depth policy paper relative to the concentration area.

## **GEOGRAPHY**

### **GEOG 103 World Regional Geography (3)**

Introduces students to global regions by integrating the environment, cultural, and economic spatial frame-works. Examines the geography of individual regions, along with the interactions between the regions and the resulting systems of interdependence.

### **GEOG 104 World Physical Geography (3)**

Presents a spatial systematic view of the earth and relates certain selected physical phenomena to the human-nature complex of the earth. These relationships emphasize the roles of the physical elements in man's environment. Topics include geographic tools, earth-sun relationships, atmosphere, lithosphere, hydro-sphere, and biosphere.

### **GEOG 105 World Cultural Geography (3)**

Investigates the spatial organization of human beings and their societies. Explores world distributions and patterns of population, cultural elements, settlements, livelihoods, and political orders as these are spatially related to the physical environment and to one another. This perspective examines where and why people occupy and utilize some portions of the earth's surface in preference to others.

### **GEOG 258 Geography of the District of Columbia (3)**

Emphasizes the physical, cultural, and economic geographical framework of the Washington metropolitan area, with consideration given to its development in a historical context. Particular stress is placed upon the spatial factors which are significant in Washington's functioning urban area.

### **GEOG 347 Urban Geography (3)**

Examines the principles governing the origin, structure, and growth of urban agglomerations. Emphasizes the phenomena of the



institution and establishment and renewal of physical and cultural areas within and without metropolises.

**GEOG 370 Introduction to Computer Mapping & Cartography (3)**

Introduces computer mapping hardware and software and cartography (the making and understanding of maps). Pertinent to anyone planning to utilize current mapping software and hardware in other university courses or disciplines, or considering a career in city and regional planning or urban policy agencies, research centers, and public and private sector employment positions.

**GEOG 375 Introduction to Desktop GIS (3)**

Introduces students to advanced software and hardware in the GIS technology. May be used for scientific investigations, resource management, and development planning. Instructs in how to assemble, store, manipulate, and display geographically referenced information which is data identified according to their location.

**GEOG 470 Advanced Desktop GIS (3)**

Applies computer mapping skills to real research or projects when working with the university administration or research centers, outside research centers or groups, local and federal government agencies, and private sector activities.

**GEOG 475 Urban and Environmental Information Systems (GIS) (3)**

Utilizes extensive databases to conduct research or work on projects and uses work stations to analyze data and display the data in geographic form.

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**HISTORY**

**HIST 101 - United States History I (To 1865) (3)**

Examines the interaction and conflict between Native Americans, Africans, and Europeans; social and economic structure of the English colonies; the war for independence and nation building; slavery and the emergence of the cotton kingdom; the development of political parties in the Age of Andrew Jackson; sectional conflict in the West; and the coming of the Civil War.

**HIST 102 - United States History II (Since 1865) (3)**

Examines the Reconstruction and the emergence of the urban industrial order; immigration, populism, and the rise of segregation and disenfranchisement, and progressivism. Also examines the new imperialism and the coming of World War I, and social and cultural change in the 1920's in addition to the Depression, the New Deal and the origins of World War II, the Cold War and McCarthyism, and culminating in the Civil Rights Movement, Vietnam and urban race riots, the rise of the new conservatism, and the Cold War and its aftermath.

**HIST 111 - African History (3)**

Focuses on the broad history of continental Africa up to 1875, with an introductory view of African cultural traditions, state building in various regions of Africa, the coming of the white man, and the slave trade in East and West Africa.

**HIST 121- Pre-Columbian and Colonial Latin American History (3)**

Surveys the indigenous civilizations of the Americas and Africa, the slave trade and the Iberian civilizations that became the third ingredient in the formation of modern Latin America and the Caribbean. Discusses the economic, political, and social overview of four centuries of existence as Iberian colonies.

**HIST 122 - Modern Latin American History (3)**

Surveys the 19th century independence movement and the development of national identity, twentieth century revolutions, especially Mexico and Cuba, and the contemporary history of the area.

**HIST 144 - History of the Islamic Peoples (3)**

Discusses life in pre-Islamic society, Mohammed and the rise of Islam, Islamic culture and institutions, and the spread of Islam in Asia, Africa, Europe, and the United States.

**HIST 154 - Asian Civilization (3)**

Surveys the cultural, political, economic, social, and intellectual developments in China, Japan, Korea, and Southeast Asia; communications among the Asian countries in ancient and medieval periods; Western domination in Asia from the 15th to 20th century, and contemporary issues.

**HIST 164 - History of Black Americans I (3)**

Discusses the impact of the European slave trade on African civilization, the establishment of slavery in Latin America, the Caribbean, and North America, the economic and political nature of slavery, the position of free Black people in a slave society up to, and including, the Reconstruction. Emphasizes the importance of early Black community and organizational development.

**HIST 165 - History of Black Americans II (3)**

Discusses the disenfranchisement of Black America and the beginning of urban migratory experience. Also explores group protests, including the nationalist movement. Course concludes with the "New Negro" movement and an examination of the civil rights and liberation movements, highlighting Black intellectual leaders and the current status of Affirmative Action.

**HIST 171 - World Civilization I (3)**

Presents the broad characteristics of traditional, classical, and feudal civilizations, examined in chronological and comparative order. Introduces basic concepts of the humanities and social sciences.

**HIST 172 - World Civilization II (3)**

Analyzes the changes produced in the West by science, technology, industrialism, and political ideologies contributing to the formation of modern culture. Examines the transformation of the non-Western world, both from within and without, by such forces as colonialism, nationalism, revolutionary ideologies, independence, and development.

**HIST 224 - History of the Caribbean (3)**

Surveys the culture of the indigenous people of the area, including the sugar-slavery-based socio-economic system of the colonial era, abolition, and emancipation. Also examines the Caribbean as a sphere of United States influence, and the development of the modern nations of the area, including Guyana.

**HIST 233 - Emergence of Western Europe (3)**

Analyzes dynamic changes produced in the West by the Middle Ages, Renaissance exploration, and Reformation. Considers the major forces of change contributing to the formation of modern Western culture.

**HIST 235 - Age of Revolution (3)**

Examines revolutions, with special emphasis on socio-economic developments in the world since the 18th century. Emphasizes the impact of revolutionary ideas on other societies and the relevance of these ideas today.

**HIST 245 - The Middle East Since 1800 (3)**

Discusses early Islam, the Byzantine Empire, the Ottoman Turks, and the rise of the Ottoman Empire to world power.

**HIST 265 - Black Women in America (3)**

Discusses the history of African-American women in the United States and the Third World, from the African experience to the present. Emphasizes diverse roles and activities in the African-American community and in the development of the U.S. Also examines certain themes, such as the myth of the Black matriarch, the economic roles of Black women, and the participation of Black women in the liberation movement.

**HIST 274 - History of Socialism and Communism (3)**

Discusses the socialist movement from the French Revolution to Perestroika and the demise of communism in Eastern Europe. Focuses on the writings of Fourier, Saint-Simon, Owen, Marx, Engels, Lenin, Stalin, Mao Zedong, Ho Chi Minh, Ernesto, Che Guevara, Nkrumah, Nyerere, and others.



**HIST 276 - Colonialism and Imperialism (3)**

Examines the ideology and practices of imperialism and colonialism including patterns of colonial government and administration, impact of colonial rule, analyses of successes, and the failures of these systems.

**HIST 278 - History of Women in the World (3)**

Introduces women's studies and the role of women in society through different historical stages. Explores women's involvement with the political and educational processes in selected countries in the Americas, Europe, and the Third World. Examines the ideals and issues of women of different classes, occupations, races, and ethnic groups.

**HIST 279 - History of the District of Columbia (3)**

Discusses the District of Columbia from its founding to the present. Emphasizes the development of social structures, forms of government, and urban patterns as these reflect changes in the local community

**HIST 305 - United States Social History (3)**

Explores the rapidly changing nature of society in the United States. Concentrates on ethnic, regional, religious, and economic shifts, with special attention to immigration, migration, and urbanization.

**HIST 333 - Expansion of the West (3)**

Discusses the dynamics of the nation-state- and, the Industrial Revolution. Also examines the origins and results of the great wars, the rise of totalitarian systems, and the development and decline of Western imperialism.

**HIST 344 Contemporary History of the Middle East (3)**

Examines the political, cultural, and social developments in the Middle East since the end of World War II.

**HIST 354 - History of Modern China (3)**

Examines the Confucian heritage and the Qing Empire (1644-1911). Also explores China's response to Western and imperialist challenges and the Chinese Revolution, as well as cultural changes, in the light of current Chinese scholarship and Western interpretations.

**HIST 355 - History of Modern Japan (3)**

Explores the political, cultural, and social development of modern Japan since the Meiji Restoration (1867). Examines the rise and fall of the Japanese Empire, and foreign and trade relations since World War II.

**HIST 394 - Philosophy and Methods of History (3)**

Explores aspects of the discipline of history. Examines theories of history and historical explanations with emphasis on the ways which historians explain the past. Covers selected topics in speculative and analytical philosophy of history interpretation. Prerequisite: Junior standing.

**HIST 404 - United States Intellectual History (3)**

Examines philosophical, scientific, social, and religious thought in the United States, with a selective emphasis on the interaction of European origins and American development.

**HIST 410 - History of Crime and Punishment in the U.S. (3)**

Covers the 300 year period from colonial times to the present with the constantly changing definitions of both crime and punishment focusses on the significant impact of crime on the way that politics, economics, and social values are structured in the United States, with special emphasis on how crime has provided mobility to certain ethnic groups in American society.

**HIST 490 - Selected Topics in History (3)**

Addresses selected topics in one of the following fields of history: Latin America, United States, Afro- Americans, Africa, Europe, Middle East, and Asia. Selected topics to be determined by faculty availability and student interest.

**HIST 491 - Research Seminar History (3).**

Required of history majors. Provides opportunities for research and writing in a field of concentration supervised by a faculty member. Pre-req.: HIST 394

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**PHILOSOPHY**

**PHIL 105 Introduction to Logic (3)**

Examines the principles of correct reasoning, emphasizing ways to acquire and strengthen basic skills, including how to recognize and analyze arguments, how to distinguish between inductive and deductive arguments, and valid and invalid arguments, and how to recognize informal fallacies.

**PHIL 106 Introduction to Problems in Philosophy (3)**

Introduces critical and dialectical methods in philosophy as applied to societal and cultural issues, such as knowledge, freedom, morality, happiness, rights, and beauty. Emphasizes the range of positions on any given issue and develops the ability to examine these positions in a reasoned and systematic manner.

**PHIL 107 Introduction to Philosophy of Religion (3)**

Clarifies major philosophic positions regarding religion, centering on the concept of God, life after death, and mysteries. Focuses on the unique features of religious language as compared to ordinary language, how religious concepts and claims can be evaluated, and the possibility of the rational defense of traditional religious views.

**PHIL 108 Introduction to Social Ethics (3)**

Examines common theories about the nature of morality and the ways these theories can be justified. Applies theories to social problems such as abortion, sexual and racial discrimination, war, and poverty.

**PHIL 109 Philosophy of Human Nature (3)**

Explores the conflicting beliefs about the nature and the purpose of human life. Examines the theories of Plato, Jesus, Marx, Freud, Sartre, Skinner, and Wilson.

**PHIL 110 Critical Reasoning (3)**

Discusses the basic concepts of critical thinking, with emphasis on how to acquire and strengthen the ability to identify the components of a complex argument, how to distinguish between valid and invalid arguments, how to recognize informal fallacies, evaluate the strength of non- deductive arguments, and write critical essays.

**PHIL 206 Introduction to Modern Logic (3)**

Examines the basic elements of modern deductive and inductive logic. Explores the use of "not," "and," and "if and then" operators, truth tables, proof construction, Mill's Methods of Agreement and Difference, and probabilistic reasoning.

**PHIL 206 Social and Political Philosophy (3)**

Examines the origin and nature of the state, the basis of natural rights, and the tension between the individual and the state. Explores individualism versus collectivism.

**PHIL 207 World Religions (3)**

Examines the basic tenets of major world religions, including similarities and differences. Designed to increase understanding and appreciation for different religions in today's global society.

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**POLITICAL SCIENCE**

**POLI 205 Introduction to Political Science (3)**

Introduces the scope and range of the discipline of political science, the role of politics in society, the nature of power and legitimacy, and political functions and institutions. Also addresses the enduring issues of equality, justice, and freedom as discussed in classical political thought, social contract theory, and contemporary ideologies.

**POLI 206 Introduction to American Government (3)**

Introduces the major principles of American government and politics. Focuses on the Presidency, Congress, and the Courts. Also examines federalism, civil rights and civil liberties, political behavior, and political parties.

**POLI 207 Black Politics (3)**



Introduces the study of the participation of African Americans in the American political system. Focuses on the historical and contemporary struggle of African Americans to become equal participants in the political process. Examines political strategies developed and used by African Americans in response to their minority status.

**POLI 285 Political Ideologies (3)**

Introduces the content and historical development of contemporary ideologies, such as communism, socialism, fascism, liberalism, and conservatism. Also examines the nature of nationalism and imperialism.

**POLI 295 Political Research Skills (3)**

Introduces the fundamental concepts of political inquiry, with particular emphasis on empirical research methods. Special emphasis on research problem formulation, writing, reading comprehension skills and knowledge of bibliographical and other research sources. Prereq.: POLI 205 or 206

**POLI 306 Political Parties and Interest Groups (3)**

Analyzes the structure, operations, and ideology of political parties and interest groups. Examines questions of conflict of interest and the influence of private groups on the electoral process. Prereq.: POLI 205 or 206

**POLI 307 The Legislative Process (3)**

Analyzes the process of policy formulation by the legislative branch of American government, exploring topics such as including legislative leadership, legislative behavior, the executive impact on legislation, and the role of parties and interest groups in the legislative process. Prereq.: POLI 205 or 206

**POLI 308 The Presidency (3)**

Examines the Presidency of the United States from the perspectives of historical development, constitutional powers and limits, and behavioral characteristics. Also analyzes power relationships involving the President, Congress, the Federal courts and other political subsystems. Prereq.: POLI 205 or 206

**POLI 336 Seminar in Practical Politics (3)**

Offers an opportunity to interact with policymakers in government and politics at the local, state, and national levels. Exposes students to practical aspects of government and politics through attendance at public hearings, City Hall, the U.S. Congress, and the Executive agencies. Prereq.: POLI 206.

**POLI 345 Introduction to Public Administration (3)**

Introduces the basic concepts and scope of public administration with particular emphasis on the federal level, viewed from the descriptive-structural perspective and the political and social dimensions of public administration in action. Analyzes the impact of bureaucratic institutions on contemporary society, the individual, and groups. Prereq.: POLI 205 or 206.

**POLI 346 Bureaucracy and Policy-Making (3)**

Examines the role of bureaucracies in policy-making and interactions with other elements of the political system. Topics covered include the sources of bureaucratic power, the bureaucratic policy process, and the interactions of the bureaucracy with the executive, legislative, and non-governmental structures, and the public. Prereq.: POLI 205 or 206

**POLI 355 Constitutional Law (3)**

Explores the constitutional and legal framework of American political institutions and the major decisions of the United States Supreme Court which have an impact on the separation of powers, the federal system, and the role of the judicial system. Prereq.: POLI 205 or 206

**POLI 356 Civil Rights and Civil Liberties (3)**

Explores the issues and problems of constitutional law, with particular emphasis on matters related to the Bill of Rights, such as freedom of speech and religion, right to privacy, and due process. Also examines desegregation, voting rights, and public accommodations. Prereq.: POLI 205 or 206

**POLI 365 Introduction to Comparative Politics (3)**

Provides a comparative study of political systems from an institutional, functional, and other perspectives, emphasizing the construction of systematic theory. Examines political systems ranging from simple to differentiated structure, and illustrates theoretical and substantive issues and problems.

Prereq.: POLI 205 or 206

**POLI 375 Introduction to International Relations (3)**

Examines the basic concepts, issues, and institutions of international relations, such as the nature of sovereignty, balance of power, spheres of influence, the nation-state, and supranational organizations. Also focuses on the nature of diplomacy and war. Prereq.: POLI 205 or 206

**POLI 376 International Law and Organizations (3)**

Focuses on international law and the basic theories of the structure and function of various international organizations, including administrative operations, with particular emphasis on the United Nations and its related agencies. Prereq.: POLI 205 or 206

**POLI 377 United States Foreign Policy (3)**

Examines the decision-making processes of American foreign policy, including the role of Congress, the federal bureaucracy, the executive branch, corporations, the military, and those involved in formulating policy. Discussion of historical and contemporary issues to illustrate these processes. Prereq.: POLI 205 or 206

**POLI 385 Western Political Thought (3)**

Discusses a selection of the major writers, issues, and traditions of Western political philosophy and how these are relevant to the theoretical and practical concerns of contemporary political thought. Discusses topics such as relation of man to the state, the nature of government, and the distribution of power. Prereq.: POLI 205 or 206

**POLI 386 Third World Political Thought (3)**

Introduces the major political theories and systems of thought of Third World countries, including historical development and socio-economic dimensions. Focuses on selected thinkers in Latin America, Africa, and Asia and their responses to the issues and problems of the Third World. Prereq.: POLI 205 or 206

**POLI 387**

**American Political Thought (3)**

Surveys the major intellectual influences on the political and constitutional systems of the United States. Discusses the origins of American political thought in Europe and the basic principles of significant political philosophies in the United States. Prereq.: POLI 205 or 206

**POLI 406**

**Selected Topics in American Politics (3)**

Examines specific aspects of American politics selected according to student interest and instructor availability. Examples may include the politics of the mass media, federal legislation relating to minority interests, and an in-depth study of influential works in contemporary American politics. Prereq.: POLI 205 or 206

**POLI 465**

**Selected Topics in Comparative Politics (3)**

Analyzes certain areas of comparative politics selected according to student need and instructor availability. Example of topics to be explored: a comparative study of selected political subsystems, such as the legislative and executive, and problems of selected areas such as Latin America, Africa, Asia, the Middle East, and Europe. Prereq.: POLI 205 or 206

**POLI 475**

**Selected Topics in International Relations (3)**

Examines certain aspects of international relations, international organizations, and foreign policy, selected according to student interest and instructor availability. Topics might include power, peace, war, terrorism, arms control, and cross-national analysis of the foreign policies of the major powers. Prereq.: POLI 205 or 206





POLI 485

**Selected Topics in Political Theory (3)**

Analyzes certain political issues and thinkers selected from the broad range of political theories and political philosophies. Examples of topics to be explored include contemporary issues in behavioral theory and normative philosophy, utopian theory, the theory of the open society, and anthropological political thought. Prereq.: POLI 205 or 206/POLI 495

**Congressional Internship Program- (4)**

An experiential learning experience that provides an opportunity to serve as an intern in a Congressional office. Students receive invaluable exposure to the inner workings of Congress, while demonstrating their professional research, analytical, and communication skills and developing professional relationships. Prereq.: POLI 206 or 307/POLI 497

**Methods of Political Science (3)**

Involves an advanced study of the nature of political inquiry, covering a brief history of the discipline of political science, the philosophical problems underlying political science research, and the major conceptual approaches of contemporary political analysis. Requires a project research design with attention given to the choice of technique. Prereq.: POLI 295

POLI 498

**Senior Seminar (3)**

Serves as the Capstone course for Political Science majors. Applies research skills learned in POLI 295 and POLI 497 towards a research project. Prereq.: POLI 295 & 497

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**URBAN STUDIES**

**URST 105 Introduction to Social Science (3)**

Introduces students to the broad scope of the social sciences. Focuses on how historical and cross-cultural forms of social organization evolve. Emphasizes an interdisciplinary approach to major theoretical and methodological perspectives used in the social sciences.

**URST 304 Urban Government (3)**

Examines the decision-making processes involving urban areas, focusing on the local, state, and national levels of government. Key aspects of urban governments are analyzed in relation to community power structures. Prereq.: URST 101.

**URST 307 Race, Class, Ethnicity and Urbanization (3)**

Examines urbanization as a social process in the U.S. Analyzes the impact of urbanization on the lifestyles, behavioral patterns, value systems, and social relations of different racial, ethnic, and class groups. Prereq.: URST 101.

**URST 310 Ethics and Public Service (3)**

Explores and analyzes ethical considerations in specific public service contexts. Students are encouraged to develop written, personal statements of their own ethical standards of public service.

**URST 311 Comparative Urbanization: The United States (3)**

Examines how American cities developed from colonial settlements to the present megalopolis. Explores growth patterns, development of urban governmental forms, and the place of the city in American thought. Prereq.: URST 101.

**URST 312 Comparative Urbanization: Europe (3)**

Examines the social, political, and economic transformation of Europe, from feudalism to capitalism and subsequent urbanization. Examines how these changes have been applied to population movements, productive activities of men and women, and the role of the state. Prereq.: URST 101.

**URST 335 The Urban Political Economy (3)**

Surveys main factors in economic change in urban society, particularly the interaction of economic and political decisions. Examines employment, age, and income, and the role of local and federal governments in economic development. Prereq.: URST 304.

**URST 336 The Municipal Budgetary Process (3)**

Explores urban fiscal problems and examines revenue sources, intergovernmental finance, the municipal budget, tax burden differences in the cost of governmental and social services, and alternative revenue sources. Prereq.: URST 304.

**URST 355 Housing (3)**

Examines the forces influencing the housing market and the role of federal, state, and local governments in the financing, production and regulation of housing. Explores current policy issues in housing. Prereq.: URST 101.

**URST 405 Urban Policy Analysis (3)**

A methods course which teaches the processes of urban policy and analysis and planning through the use of social science analytical methods and techniques applied to select urban social problems. Prereq.: Junior Standing

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**PSYCHOLOGY**

**PSYC 137 Psychology of Adjustment (3)**

Emphasizes the understanding of everyday human behavior through the application of scientific principles derived from research. Examines foundations of psychological adjustment and the development of maladaptive behavior. Discusses human reactions evoked by stressful and frustrating environmental events, as well as reactions to internal sources of frustration. Examines procedures of psychological assessment, change, and newer methods of enhancing adjustment.

**PSYC 201 Principles of Psychology I (3)**

Introduces the history, methods, major theoretical viewpoints, and concepts of scientific psychology. Provides non majors with an overview of the field of psychology; majors gain a foundation for further study. Prereq: Sophomore standing.

**PSYC 202 Critical Skills Development in Psychology (3)**

Enhances critical thinking and reasoning skills. Introduces the range of concepts needed to understand the process of empirical inquiry, scientific report writing, and utilization of the research literature and sources. Also teaches basic computer skills. Prereq: PSYC 201.

**PSYC 1 225 Social Psychology (3)**

Surveys the major theories and concepts of social psychology, focusing on such topics as person perception, attitude formation and change, conformity, aggression, cooperation and conflict, and interpersonal and intergroup relations. Evaluates psychology significance for understanding contemporary social issues and conflicts. Prereq: PSYC 202.

**PSYC 228 Psychology of Multicultural Relation (3)**

Surveys and examines critically environmental factors affecting the psychological experiences of men and women from ethnic minority groups. Organizes research findings and philosophical concepts into an ethnocentric framework which illuminates the strengths of minority groups. Prereq: Sophomore standing.

**PSYC 235 Theories of Personality (3)**

Examines the major theories which describe personality development and change. Explores representative theories from psychoanalytic, social learning, factor analytic, behavioral, and humanistic orientations, along with representative therapeutic approaches. Prereq: PSYC 201.

**PSYC 245 Developmental Psychology (3)**

Surveys basic concepts and theories of developmental psychology. Emphasizes the physical, cognitive, social, and emotional behaviors characteristic of individuals at each life stage, from birth to death. Shows how biological, cultural, and environmental factors interact to influence behavior at every life stage. Prereq: PSYC 201.

**PSYC 311 Statistics I (3)**

Introduces basic concepts of statistics and elementary probability. Includes measurement, sampling, distributions and graphs, measures of central tendency and variability, standardized scores, the normal curve, correlation, and regression.



Prereq: PSYC 202.

**PSYC 312 Statistics II (3)**

Introduces inferential statistics and experimental design. Includes probability theory, parametric and non-parametric hypothesis testing, power analysis, "t" tests for independent and repeated sample designs, one-way analysis of variance, and factorial or two way analysis of variance and basic experimental design. Prereq: PSYC 311.

**PSYC 313 Experimental Psychology Lecture (3)**

Examines fundamentals of the experimental method in psychology. Topics include scientific methodology, survey and correlational research designs, experimental design and control, ethics of research, and writing of research reports in APA format. Prereq: PSYC 311.

**PSYC 314 Experimental Psychology Lab (1)**

Provides first-hand laboratory experience for students enrolled in PSYC 313 Experimental Psychology (3). Students participate in the design of experiments and the collection, analysis, and interpretation of data. Explores topics related to learning, memory, perception, and social/personality psychology. Prereq: Must be taken concurrently with PSYC 313.

**PSYC 315 Industrial/Organizational Psychology (3)**

Examines factors involved in designing effective organizations. Reviews theories of organizational design and applies psychological theories and concepts in industrial settings. Prereq: PSYC 202.

**PSYC 316 Introduction to Clinical Psychology (3)**

Examines the issues of assessment, intervention, and professional issues in clinical psychology. Addresses training and educational issues, including elements of preparation for graduate work. Explores the array of professional activities of practicing psychologists and the interactive roles with other mental health professionals. Prereq: PSYC 235 and PSYC 436 or permission of the instructor.

**PSYC 317 Sensation and Perception (3)**

Introduces current research into sensory and perceptual phenomena. Includes topics such as sensory coding, adaptation, attention, perception of objects and space, perceptual development, and illusions. Prereq: PSYC 202 and junior standing.

**PSYC 318 Basic Conditioning and Learning (3)**

Examines principles of learning through systematic analysis of classical and operant conditioning. Explores both traditional and current approaches to learning and memory. Prereq: PSYC 202 and junior standing.

**PSYC 319 Human Learning and Cognition (3)**

Introduces the study of human cognition. Includes topics such as memory processes, language, thought, problem solving, concept learning, attention, short-term memory, and pattern recognition. Prereq: PSYC 202 and junior standing.

**PSYC 327 Group Processes (3)**

Approaches the study of group dynamics through exposure to theories, research, and first-hand laboratory experiences. Emphasizes integrating theoretical learning with experiential learning in an attempt to understand the social and psychological "forces" operating in groups. Fosters greater awareness of self and others, and develops in the ability to observe and diagnose group behavior. Prereq: PSYC 201.

**PSYC 335 Tests and Measurements (3)**

Examines measurement theory used in test construction and use. Introduces representative tests of all types. Examines the social, educational, and economic implications of using standardized tests and other psychological measures with minority groups. Explores alternative assessment approaches. Prereq: PSYC 311, or permission of the instructor.

**PSYC 336 Psychology of Human Sexuality (3)**

Surveys major aspects of human sexuality, including attitudes, myths, and premarital, marital, and non-marital behavior. Views

optimum sexual functioning, heterosexuality, homosexuality, and sexual variance from a psychological vantage point. Examines problem/dysfunctional sexual behaviors and therapeutic strategies used to treat these. Prereq: PSYC 201.

**PSYC 343 Health Psychology (3)**

Explores the mind-body relationship as it relates to health and illness. Examines biological, psychological, and social factors. Emphasizes a systems-theory view of health psychology. Teaches practical skills for stress management and general wellness. Prereq.: Junior standing or consent of instructor.

**PSYC 346 Adult Development and Aging (3)**

Provides an overview of the major theories of adult development. Explores myths about the physical, intellectual, social, and emotional changes associated with aging. Explores psychosocial aspects of death and dying. Prereq: PSYC 245 or permission of instructor.

**PSYC 351 Community Psychology (3)**

Surveys basic concepts and methods used by community psychologists to promote psychological well-being and prevent the development of problems of individuals, groups, and communities. Topics include values and roots of community psychology, historical trends and issues in mental health service delivery, assessment of person-environment interactions, principles and models of prevention, and strategies of social change. Prereq: Junior or senior standing in psychology.

**PSYC 352 Psychology Practicum (3)**

Provides an opportunity for students to gain experience, through supervised on-site training in the field, in how to apply psychological theories and methods to solve problems of individuals, groups, organizations, or communities. Includes didactic seminars to integrate classroom theory with the field experience. Field and seminar hours required. Prereq: Junior standing in psychology, including successful completion of at least two 200-level psychology courses beyond PSYC 202.

**PSYC 353 Environmental Psychology (3)**

Explores the various aspects of the person-environment relationship including artificial environments such as homes, schools, and offices, as well as the natural environment such as national parks and hazard areas. Emphasizes the use of causal models and computer simulation as research tools. Prereq.: Junior standing for majors or consent of instructor.

**PSYC 395 Independent Study (VC)**

Allows advanced psychology students to do independent research in a problem area of choice under the direction of a faculty member. Prereq: Junior or senior standing in psychology and a cumulative grade point average of 2.8.

**PSYC 396 Special Topics in Psychology (VC)**

Allows for research of and writing on contemporary topics in psychology which are of special interest to students. Prereq: Junior standing in psychology/ permission of the Department Chair.

**PSYC 1 405 History and Systems (3)**

Examines the origins of psychology in philosophy and biology, and the development of psychology as a science in the nineteenth and twentieth centuries. Considers current theoretical perspectives and research in relation to the enduring issues of the role of culture, science, and technology in developing psychological constructs. Strongly recommended for students who aspire to graduate study in psychology or related fields. Prereq: PSYC 202 and junior standing or consent of instructor.

**PSYC 415 Introduction to Neuroscience Lecture (3)**

Introduces the biological bases of behavior. Explores psychopharmacology, neurophysiology, and neuroanatomy. Knowledge of these areas is seminal to the understanding of both normal and abnormal behavior. Prereq: PSYC 201.

**PSYC 416 Introduction to Neuroscience Laboratory (1)**



Introduces a variety of techniques employed to understand the neural underpinnings of behavior. Laboratory exercises include neurophysiological, neuropharmacological, and neuroanatomical computer exercises. Also explores principles of stereotaxic surgery and neurohistology. Must be taken concurrently with PSYC 415.

**PSYC 1 419 Psychopharmacology (3)**

Provides basic information on therapeutic and recreational use and misuse of psychoactive drugs. Examines the mechanisms of action, known or unknown sites of action, types of neurons acted upon, the disorders that the drugs are used to treat, and structure-function relationships. Prereq: Senior standing or permission of instructor.

**PSYC 420 Senior Seminar (3)**

Provides a capstone experience for the psychology major. Integrates knowledge from previous courses covering major research issues in psychology, experimental design and methodology, and statistical procedures. Students are required to conceptualize a research problem, collect and analyze the data using SPSS, and write up the research project. Also, students are required to present research projects at a designated public forum.

**PSYC 436 Abnormal Psychology (3)**

Exposes students to the traditional classification system used to describe abnormal behavior, and examines theories of causation and therapy. Addresses questions related to the ethicality and validity of diagnostic classification, and the value of the disease model. Discusses the efficacy of traditional psychotherapies, the future of the community mental health concept, and the relevance of traditional approaches for treating minority groups. Prereq: PSYC 235.

**PSYC 440 Senior Seminar/Thesis (3)**

Provides a capstone experience for the psychology major. Integrates knowledge from previous courses concerning major research issues in psychology, experimental design and methodology, and statistical procedures. Students are required to conceptualize a research problem, collect and analyze the data using SPSS, and write up the research project. Also students are required to present the research project at a designated public forum.

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**COUNSELING PSYCHOLOGY**

**CNSL 507 Grief Counseling (3)**

Explores philosophical, theoretical, and practical considerations necessary for work with individuals experiencing death, grief, and loss. Prepares students for work with those dying and bereaved loved ones.

**CNSL 508 Organization and Administration of Counseling (3)**

Examines management and organizational concepts in general and highlights how these relate to educational and human service delivery systems in particular. Reviews management theory with a focus on key management functions. Examines development and functioning of school guidance offices.

**CNSL 509 Counseling Philosophies (3)**

Surveys counseling as a discipline by examining its philosophical foundations and the major undergirding principles and practice, including models of human development, principles of learning, and principles of guidance and counseling.

**CNSL 510 Group Counseling (3)**

Examines the major schools, as well as contemporary trends, in group counseling including didactic and experiential models. Provides laboratory exercises which demonstrate different group approaches, offering opportunities to experience both group leadership and group participation. Prereq: CNSL 509 & 514.

**CNSL 513 Cultural Diversity Issues and Multicultural Counseling (3)**

Reviews counseling theories and the appropriateness of each for counseling minorities including the aged, handicapped, gifted, mentally disabled, women, and members of racial and ethnic groups. Prereq: CNSL 509.

**CNSL 514 Theories of Counseling (3)**

Examines conceptual frameworks of major counseling theories and guides counselors in the development of theoretical preference.

**CNSL 517 Career Theories and Development (3)**

Reviews information related to training and educating for jobs and careers, marriage and careers, and retirement careers. Utilizes a series of practical class projects, such as performing a job analysis, studying an occupational information program, reviewing systems for classifying materials and information. Also involves critically reviewing and analyzing occupational materials from commercial publishers and professional associations to teach concepts. Explores the rationale behind the contributions of major career theorists. CNSL 514.

**CNSL 518 Supervision in Practicum & Field Experience (3)**

Facilitates the development of counseling skills in preparation for internship experience. Prereq: Advancement to Candidacy.

**CNSL 519 Appraisal Techniques of Counseling (3)**

Examines techniques and methods of human appraisal, including standardized testing, autobiographical techniques, case histories, case studies, and interviews.

**CNSL 521 Practicum and Field Experience in Counseling I (3)**

Requires hands-on work in a counseling setting under the direction of a qualified professional. Requires on-site and classroom hours. Prereq.: Completion of core courses and PSYC 537, CNSL 510, CNSL 514, CNSL 530 and 531.

**CNSL 522 Practicum and Field Experience in Counseling II (3)**

Continues the field experience with additional responsibilities to enhance continued skill development. Requires on-site and classroom hours. Prereq.: CNSL 521.

**CNSL 528 Drug Abuse Prevention and Treatment (3)**

Examines the psychological aspects of addiction to alcohol, narcotics, stimulants, psychotropics, hallucinogenic drugs, gambling, and sex. Integrates discussions of psychosocial factors leading to addictive states and explores approaches and strategies for prevention, control, counseling, and treatment across the course curriculum. Prereq: CNSL-514.

**CNSL 529 Human Sexuality and Sexual Dysfunction (3)**

Discusses topics that are germane to the counselor's roles as sex educator and sex counselor. Covers reproductive processes, sexual behavior, sex and gender, marriage, family and interpersonal relationships, and sex and health. Analyzes theories and empirical studies of social processes and sexual practices.

**CNSL 530 Techniques of Counseling (3)**

Focuses on interviewing and counseling skills for effective therapeutic relationships. Develops counseling goals, design intervention strategies, assess client outcomes, and methods used to effectively terminate counseling relationships. Prereq: CNSL 514.

**CNSL 531 Ethics, Legal and Legislative Issues (3)**

Surveys ethics in counseling and current legislation and laws impacting the counseling profession. Provides an overview of basic legal terminology and techniques for recognizing legal problems and issues. Prepares the counselor to serve as a client advocate and expert judicial witness. Examines the legal implications of controversial issues concerning contemporary, social welfare issues.

**CNSL 532 Introduction to Research and Program Evaluation (3)**

Examines qualitative and quantitative methods used in human services research. Prepares students to read, analyze, and evaluate research and equips them to evaluate the effectiveness of service delivery programs. Cross-listed with PSYC 552.

**CNSL 533 Crisis Intervention (3)**

Overviews theories of self-destructive behavior, crisis intervention, and suicide prevention. Explores treatment approaches for crises situations that occur in schools and other institutional settings. Prereq.: CNSL 530.

**CNSL 538 Mental Health Treatment Techniques (3)**



Examines traditional and contemporary mental health treatment approaches with special emphasis on techniques used in outpatient, community-based care. Prereq.: CNSL 514.

**CNSL 543 Addiction Disorders (3)**

Examines the physiological and psychological aspects of addiction to alcohol, narcotics, stimulants, psychotropics, hallucinogenic drugs, gambling, and sex. Assesses psychosocial factors associated with addiction. Explores a variety of treatment approaches.

**CNSL 544 Family Counseling (3)**

Focuses on traditional and non-traditional family life styles (including single-parent families, commune families, and the family in which two unmarried persons live together and procreate), family structures of racial and economic groups, communication, and communication breakdowns in family relationships. Prerequisites: CNSL 509 & 514.

**CNSL 545 Independent Research Study (1-6)**

Provides the counselor-in-training who has selected an area of specialization an opportunity for in-depth reading, discussion, and/or field or laboratory experience in an area of interest. Prereq: Permission of instructor and Department Chair. May be repeated for credit.

**CNSL 546 Counseling Children and Adolescents (3)**

Explores a variety of models for effecting behavioral change in the early stages of the lifespan. Exposes a variety of techniques for helping children and youth through counseling processes. Prerequisites: PSYC 537, CNSL 509 & 514.

**CNSL 549 Tests in Counseling (3)**

Examines the major types of tests and how these are administered and scored. Also discusses the use of tests in decision-making, research, and treatment the criteria used for judging tests, the basic concepts, and the terminology of tests and measurements.

**CNSL 555 Counseling the Elderly (3)**

Examines theories and methods for counseling senior citizens. Reviews biological and sociocultural aspects of aging and the impact these have on behavior and behavioral change. Prereq: 509 & 514

**CNSL 596 Special Topics in Counseling (VC)**

Presents and discusses special topics pertaining to counseling that are of interest to students.

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**REHABILITATION**

**RHCN -500 Foundations of Rehabilitation Counseling (3)**

Examines the history, philosophy, and legislation related to the development of the field. Focuses is on research findings, current policies, government entities, and ethical issues..

**RHCN -501 Psycho-social and Medical Aspect of Disability in Rehabilitation (3)**

Overview of major physical, cognitive, and sensory impairments. Emphasizes functional limitations, intervention resources, contributions of medical and allied health professions, and the psychosocial implications of adjusting to disabling conditions.

**RHCN -502 Career Counseling and Job Development and Placement in Rehabilitation (3)**

Explores occupational information job matching systems and job placement approaches. Focuses on demand-side job development, job-seeking skills, training, supported employment, transitional work, and placement techniques, including job analyses, ADA implementation, and labor market surveys.

**RHCN -503 Introduction to Assistive Technology Rehabilitation Counseling (3)**

Examines rehabilitative technology used to support individuals with physical, cognitive, and sensory disabilities.

**RHCN -504 Principles and Practices of Case Management in Rehabilitation (3)**

Examines personalized processes to assess needs, coordinate care, and ensure optimum outcomes. Identifies problem-solving

techniques for case management, variables that affect health, functioning, and skills in the development of case management plans.

**RHCN -505 Directed Readings in Rehabilitation (3)**

Provides intensive study in one or more topical areas of rehabilitation through directed readings and the evaluation of rehabilitation delivery systems and resources.

**RHCN-500. Foundations of Rehabilitation Counseling (3)**

Examines the history, philosophy, and legislation related to the development of the field. Focus is on research findings, current policies, government entities, and ethical issues. Also explores modules of organization and administration.

**RHCN-504. Principles and Practices of Case Management in Rehabilitation (3)**

Examines rehabilitation delivery systems. Explores benefit systems, ethic goal development, and rehabilitation planning and documentation.

**RHCN-506. Psychosocial and Medical Aspects of Disability in Rehabilitation I (3)**

Overview of major physical, cognitive, neurological, developmental, substance use and psychiatric disorders, and sensory impairments. Emphasizes functional limitations, intervention resources, contributions of medical and allied health professions, and psychosocial implications of adjusting to disabling conditions. Course includes a module on DSM-IV-TR.

**RHCN-507. Career Counseling in Rehabilitation (3)**

Explores career theories and other practices associated with successful job placement activities. Examines transferable skills analysis, labor market analysis, job seeking skills training, employer identification, management of job development campaign, as well as supported employment strategies. Explores technology related to these areas.

**RHCN-508. Rehabilitation Counseling Theories (3)**

Examines conceptual frameworks of major counseling theories and guides rehabilitation counselors in the development of conceptual and theoretical preference. Focuses on principles and approaches relevant to rehabilitation counseling and supervision. Includes a module on family and systems theory.

**RHCN-509. Introduction to Rehabilitation Research (3)**

Examines quantitative and qualitative methods used in human services research. Prepares students to read, analyze, and evaluate research, and equips them with the skills to evaluate the effectiveness of service delivery programs.

**RHCN-510. Practicum in Rehabilitation Counseling (3)**

Students supervised by Certified Rehabilitation Counselors (CRC) complete a 100-hour practicum. Provides opportunities to demonstrate counseling skills with disabled individuals in a rehabilitation agency or community rehabilitation centers.

**RHCN-511. Internship in Rehabilitation Counseling I (3)** Provides opportunities to demonstrate counseling skills in a rehabilitation setting, agencies, and community rehabilitation centers with primary supervision by a qualified CRC. Students spend significant time within an agency functioning as a professional rehabilitation counselor. Students should complete 300 hours in part I and II totaling 600 hours.

**RHCN-512. Internship in Rehabilitation Counseling II (3)**

Provides opportunities to demonstrate advanced rehabilitation counseling skills in a rehabilitation setting, agencies, and community rehabilitation centers with primary supervision by a qualified CRC. Students are required to spend significant time within an agency functioning as a professional rehabilitation counselor. Students will complete 300 hours during Internship I and II totaling 600 hours.

**RHCN-513. Job Development and Placement in Rehabilitation (3)**

Explores occupational information job matching systems and job placement approaches. Focuses on demand-side job development, job-seeking skills training, supported employment, transitional work,



and placement techniques, including job analyses, ADA implementation, and labor market surveys. Includes a module on assistive technology.

**RHCN-514. Psychosocial & Medical Aspects of Disability II (3)** Psychosocial and Medical Aspects Part II focuses on the psychosocial and psychological aspects of medical conditions. Covers cardiovascular, respiratory, renal, gastrointestinal, musculoskeletal, blood/immune systems, endocrine and dermatologic conditions disability. Emphasizes functional limitations, intervention resources, contributions of medical and allied health professions. Explores implications of adjusting to disabling medical conditions.

**RHCN-515. Developmental Disorders & Rehabilitation – 3 Semester hours**

Uses a 20-hour field experience component involving individuals with developmental disabilities in local DRS agencies. Provides an opportunity for students to better understand the unique challenges of individuals with developmental disabilities and to learn about the ways in which rehabilitation adapts to meet these challenges. Utilizes a life span approach to increase awareness and sensitivity about the variety of issues an individual with a developmental disability and his/her family may encounter.

**RHCN-516. Rehabilitation and Traumatic Brain Injury (3)**

Uses a 20-hour field experience component involving individuals with developmental disabilities in local DRS agencies. Reviews various types of traumatic brain injury and common physical, cognitive and behavioral consequences. Provides information on head injury and methods for discussing common causes of traumatic brain injury, continuum of care, and factors that contribute to the successful rehabilitation and recovery of a person from traumatic brain injury.

**RHCN-517. Rehabilitation & Psychiatric Disabilities (3)**

Uses a 20-hour field experience component involving individuals with psychiatric disabilities in local DRS agencies. Provides an overview of psychiatric disability and rehabilitation approaches, and reviews current and evolving evidence-based practices in employing individuals with psychiatric disabilities, including supported employment.

**RHCN-518. Rehabilitation, Transition and the Educational Setting (3)** Uses a 20-hour field experience component involving visiting sites that prepare individuals with disabilities to enter the post-school environment, this course provides an opportunity for students to better understand the unique challenges of individuals with educational disabilities and transition challenges. A key focus will be on the vocational choices, training and education available to young adults with educational disabilities as they make the transition into adulthood. Another key component focuses on differentiating the legal requirements of IDEA and ADA.

**RHCN-519. Neuropsychological Assessment Lecture (3)**

Surveys representative tests and techniques utilized in neuropsychological assessment of brain functioning. Explores methodologies in the administration, scoring, and interpretation of selected neuropsychological tests. Provides instruction in how to prepare a written neuropsychological profile and explains the terminology used in reaching diagnostic decisions.

**RHCN-520. Neuropsychological Assessment Laboratory (1)**

Provides a laboratory setting for teaching applied psychological assessment using neuropsychological tests.

**RHCN-521. Clinical Report Writing in Rehabilitation (3)**

Provides intensive training in report writing which integrates relevant, psychological, and developmental test and non-test data results into a coherent, comprehensive report which describes psychological functioning. Includes a module on medical terminology.

**RHCN-522. Application of Rehabilitation Counseling in a Field-Based Setting (3)**

Examines the major approaches and best practices of counseling techniques with a focus on individuals with disabilities. Incorporates traditional counseling microskills, from a rehabilitation perspective that may be understood contextually and operationally. Demonstrates how microskills can be used to evaluate, analyze, coordinate, teach, confer, and advocate on behalf of consumers with disabilities in a way that strengthens the consumer's capacity to live independently, become employed, and become more integrated with the community-at-large. Significant time is spent on experiential activities including dyads, triads, and role-playing.

**RHCN-523. Applications of Assistive Technology in Rehabilitation (3)** Reviews assistive technology applications as applied to the critical needs of consumers with disabilities. Through experiential, on-site visits (such as field trips and professional shadowing), and the internet, the course covers various forms of assistive technology including: electronic devices, home and jobsite modifications, wheelchairs and seating, vehicle modifications, computer access, and augmentative communication. Explores the components of conducting vocational evaluations, developing implementation plans, rendering clinical decisions, prompting appropriate recommendations, and locating the resources for assistive technology devices and services.

**RHCN-524. Ethics in Rehabilitation Counseling (3)**

Examines ethical and legal practice guidelines that are critical to rehabilitation counseling. Also addresses growing, emergent issues within the profession and in the disability arena as these relate to the future direction of rehabilitation counseling. Emphasizes professional identity development and professional behavior which influences effective, ethical decision making in practice and research.

**RHCN 525. Introduction to Vocational Evaluation(3)** Reviews foundations of vocational evaluation, including philosophical and historical aspects as these relate to consumers with disabilities. Incorporates didactic and practical methods. Examines standardized assessment tools including interest rating scales, career development instruments, intelligence, achievement, and ability tests, projective techniques, personality measures, and adaptive behavioral measures. Discusses the impact of the information derived from these instruments on job and career development and the independent living potential of consumers with disabilities.



## School of Engineering and Applied Science

### **BSCS AND BSIT COURSE DESCRIPTIONS**

<http://csit.udc.edu/coursedescriptions.php>

#### **APCT 110/111 Intro to Programming Lec/ Lab (2/1)**

Introduction to program development using a programming environment. Topics covers a basic understanding of understanding of programming concepts and constructing numbers, strings, assignments, sequential vs. selective execution, nesting, loops, functions, arrays, reference parameters, file streams, etc.

#### **APCT 115 Foundations of Computing (3)**

Survey of computer science topics. Features applied concepts of iteration, induction, and recursion; functions and relations; propositional logic and predicate logic; graph and tree data structures; Boolean and computer logic; finite state machines; and algorithmic problem solving.

#### **CSCI 135 Scientific Programming (3)**

Through this course, students will learn how to solve their computation problems in C/C++-language using numerical methods.

#### **APCT 231/ 233 Computer Science I Lec/ Lab (3/1)**

Covers algorithm and program development using a higher-level programming language (C or Java). Use of control structures, functions, and arrays. Objects are introduced.

#### **APCT 232/ 234 Computer Science II Lec/ Lab (3/1)**

Emphasis on object oriented programming (such as C++) Topics include multi-dimensional arrays, searching and sorting algorithms, data abstraction, file operations including random access files, classes, pointers, and introduction to linked lists, stacks and queues. Prerequisite: APCT 231/233.

#### **CMOP 235/ 236 Introduction to WebPage Development and HTML Lec/ Lab (2/1)**

This course in computer science develops basic skills in webpage development using the HTML programming language. It introduces the process of developing a webpage by explaining two broadly known programming languages such as HTML, XHTML, CSS, and JavaScript. Prerequisite: APCT 231/233.

#### **APCT 341 Advanced Web Development (3)**

This course will focus on introducing advanced web programming languages such as PHP, JavaScript, ASP .Net, and CodFusion. It mainly focuses on understanding advanced web-development techniques that use databases to create web contents. Prerequisite: CMOP 235/236.

#### **CMOP 131/ 132 Computer Networking Fundamentals Lec/ Lab (3/1)**

This course is a study of local area networking concepts through discussions on connectivity, communications and other networking fundamentals. The course is designed to prepare the student to be successful in completing industry network fundamental certification exams.

#### **CMOP 231/ 232 Wireless Local Area Networks Lec/ Lab (2/1)**

Fundamental concepts of Local Area Network architecture and protocols. Topics include (1) basic concepts needed to design, configure, and implement Local Area Networks and (2) the evolution of Ethernet, Fast Ethernet, Gigabit Ethernet, ATM and wireless LANs (WiFi). Prerequisite: CMOP 131/132.

#### **CSCI 241 Data Structures (3)**

This course covers the design and implementation of data structures including arrays, stacks, queues, linked lists, binary trees, heaps, balanced trees and graphs. Other topics include sorting, hashing, memory allocation, and garbage collection. Prerequisite: APCT 231/233.

#### **CSCI 251/ 253 Assemblers & Systems Lec/ Lab (3/1)**

Introduces assembly and machine level software concepts and applications. It will include the understanding of instruction sets, addressing techniques, input/ output programs, data representations, and logic. Prerequisite: APCT 231/233.

#### **CSCI 311/ 313 Computer Organization Lec/ Lab (3/1)**

Provides foundations of digital design, including Boolean Algebra, nondecimal number systems; basic digital elements using integrated logic modules, and logic design. Prerequisite: APCT 231/233.

#### **CSCI 315 Unix and System Programming (3)**

This course focuses on introducing tools for program development and efficient use of a workstation environment. Topics include UNIX commands, emacs environment, X-windows, separate compilation of large projects, user defined libraries, make files, intelligent debugging, perl, HTML, rcs/scs, tcl/tk and assorted additional topics. Prerequisite: APCT 232/234.

#### **CSCI 317 Multimedia Programming & Design (3)**

This course will address the topics of multimedia programming and design such as scripting language, image editing software, the development of games, and dynamic applications. Prerequisite: APCT 232/234.

#### **CSCI 325 Organization of Programming Language (3)**

The study of the organization of programming languages, especially the run-time behavior of programs; formal study of programming languages specification and analysis; continuation of the development of problem analysis and solution, and of programming skills. Prerequisite: CSCI 241.

#### **CSCI 341 Software Engineering (3)**

Explores issues in design, development, documentation, coding and implementation of large software projects. The tools and techniques required for all stages are addressed. The functional requirements and decomposition of model problems are discussed. Validation, test and maintenance of large software systems are also covered. Prerequisite: APCT 232/234.

#### **CSCI 342 System & Network Administration (3)**

This course covers system administration, network planning, routine system maintenance, firewalls and security, Internet connectivity, system optimization, troubleshooting and scripting languages. Prerequisite: CMOP 131/132.

#### **CSCI 343 Database Administration (3)**

This course introduces database management systems design philosophy and design considerations for satisfying both availability and integrity requirements. Prerequisite: APCT 232/234.

#### **CSCI 345 Human Computer Interaction (3)**

This course provides an introduction to the field of human-computer interaction (HCI) that concentrates on the study of interaction between human (users) and computers. Prerequisite: Junior standing or above.

#### **CSCI 351 Computer Networks (3)**

This course aims to provide data communication fundamentals and the principles governing computer communication networks. It provides an understanding of the components of networks, how they are connected as well as the basics in the design and implementation of network protocols. A number of techniques and protocols with respect to addressing, subnetting, routing, multicasting, and the interconnection of heterogeneous networks are discussed. Prerequisite: CMOP 131/132 or CSCI 241.

#### **CSCI 352 Network Security (3)**

This course provide a comprehensive overview of fundamental network security concepts, techniques, and issues such as types of attacks computers/networks are vulnerable to, attacker profiles, and hardware/software defense solutions available. Prerequisite: CMOP 131/132.





**CSCI 353 Information Security (3)**

This course provides an in-depth understanding of general information security fundamentals, organization and operation security procedures and policies, handling of security incidents, security audit principles and practices, security ethics, and computer forensics. Prerequisite: Junior standing or above.

**CSCI 410 Theory of Computing (3)**

Introduction to the theory of computing including: Regular languages, finite automata, transition graphs, Kleene's theorem. Finite automata with output. Context-free languages, derivation trees, normal form grammars, pumping lemma, pushdown automata, and Turing machines. Prerequisites: CSCI 241, MATH 152/156, or equivalent, MATH 213.

**CSCI 412 Operating Systems (3)**

This course will introduce the concepts of operating systems (including process, storage, and processor management techniques) and performance and security topics. Specifically, it concentrates on the kernel aspects of multi-tasking operating systems with the emphasis being on concepts which lead to practical implementations. Prerequisite: CSCI 311/313.

**CSCI 414 Introduction to Artificial Intelligence (3)**

This course will introduce the basic principles, techniques, and applications of Artificial Intelligence. The course also touches on more recent developments in natural language processing, visual processing, machine learning, robotics, and philosophical foundations. Prerequisite: CSCI 241.

**CSCI 415 Computer Architecture (3)**

Examines arithmetic and control units, system aspects of computer memory and access control functions, input-output, and system organization. Prerequisite: CSCI 311/313.

**CSCI 424 Introduction to Compiler Design (3)**

Studies programming language design, error detection, and recovery techniques. Lexical analysis, syntactical analysis, symbol table handling, semantic analysis, code generation, and code optimization, compiler-compilers are examined. Prerequisite: CSCI 325.

**CSCI 434 Analysis of Algorithms (3)**

Introduction to theoretical algorithm analysis, including study of growth rates of functions, worst-case and average behavior, and divide and conquer. Topics will include graphs, strings and dynamic programming. Prerequisite: CSCI 241 and MATH 152/156 or equivalent.

**CSCI 435 Digital Image Processing (3)**

This course will address a theoretical and practical introduction to the area of digital image processing including image representation, formats, segmentation, edge detection, convolution, compression, etc. Prerequisite: Junior standing or above.

**CSCI 441 Digital Forensics (3)**

This course will teach the concepts in digital/computer forensic analysis and Internet Investigations. Specifically, this course focuses on understanding various mechanisms to detect cyber-crime, preservation of evidence, government regulations, etc. In addition, legal and technical aspects of study to achieve a balance similar to that encountered during common cases in which computer forensics are employed. Prerequisite: APCT 232/234.

**CSCI 451 Advanced Network Management (3)**

This course will address the principles of network architecture and layering, multiplexing, network addressing, routing and routing protocols. Prerequisite: CSCI 342

**CSCI 452 Database Systems Design (3)**

This course covers database design, entity-relationship and relational model, relational algebra, query language SQL, storage and file structures, query processing, database system architectures. Prerequisite: CSCI 241 or CSCI 343.

**CSCI 453 Secure Software Engineering(3)**

This course provides a detailed explanation of common programming errors and describes how these errors can lead to software systems that are vulnerable to exploitation. The course concentrates on security issues intrinsic to software systems. Prerequisite: CSCI 341.

**CSCI 454 Computer Graphics (3)**

This course focuses on providing information about the theory and practice of computer graphics. In addition, this course will cover 3D objects rendering techniques ranging from simple flat shading to complex ray-tracing using the OpenGL graphics library. Prerequisite: CSCI 241 and MATH 225.

**CSCI 455 Cryptography (3)**

This class will provide the student a basic understanding of cryptography through algorithms. In addition, this class will cover the necessary materials including: data structures, basic algorithms, computational complexity, elementary number theory, and basic cryptography including private key cryptosystems and public key cryptosystems. Prerequisite: Senior standing or above.

**CSCI 456 Visualization (3)**

This course provides understanding of general visualization techniques, the differences between scientific visualization, information visualization, and visual analytics, visual perception and cognitive issues when creating visual elements, and evaluation methods. Prerequisite: CSCI 454.

**CSCI 495 Senior Seminar (1)**

This course is designed as a capstone experience to provide identifying the cutting edge technologies and a broader context for knowledge in the field of Computer Science & Information Technology. Students are required to do in-class presentations by reading current research or survey papers. Prerequisite: 90 credit hours or more.

**CSCI 498 Senior Project I (2)**

Students learn emerging topics and vocabularies in the discipline and problem-solving skills through capstone projects. This course teaches students how to continuously explore new ideas through their post-graduation life. Prerequisite: 90 credit hours or more.

**CSCI 499 Senior Project II (3)**

Students learn project management skills and intensive writing skills, and use the skills to professionally present the project results of Senior Project 1. Prerequisite: 90 credit hours or more.

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**MSCS COURSE DESCRIPTIONS:**

<http://csit.udc.edu/coursedescriptions.php>

**CSCI 504 Design and Analysis of Algorithms (3)**

Focuses on the design and analysis of algorithms to solve various classes of computational problems. Algorithmic techniques to be studied include divide-and-conquer, dynamic programming, greedy methods, amortized analysis, branch-and-bound, randomizing, and backtracking.

**CSCI 505 Foundations of Computer Architecture (3)**

The internal structure and operation of modern computer systems is examined in this course. Topics to be discussed include the design and operation of the ALU, FPU, and CPU; micro programmed control vs. hardwired control, pipelining, RISC vs. CISC machines, and various memory systems including caches and virtual memory; An introduction to parallel and vector processing, multiprocessor systems and interconnection networks will also be presented. System performance will also be addressed.

**CSCI 506 Principles of Operating Systems (3)**



In this course theoretical and implementation aspects of operating system design are presented from both developer and user perspectives. Parallelism or concurrency aspects are explained using the concepts of process management, synchronization, deadlocks, job and process scheduling. Detailed techniques of real and virtual storage management are discussed for a variety of processing environments such as multi-programming, multi-processing, etc. Students will be designing simulated operating system components and implementing them using a high-level language.

**CSCI 507 Principles of Database Systems (3)**

Focuses on theoretical and design aspects of database management system software. Topics include the entity-relationship model, database system architectures, data models, and file organization and access methods. A variety of database models including the relational, object-oriented and network models will be discussed. Other topics include normal forms, concurrency management, query languages and query optimization.

**CSCI 508 Principles of Data Communications Networks (3)**

Provides a unified treatment of data communications networks from the perspective of data communication principle, components and services, line control techniques and network requirements and design. Topics include transmission principles and media, data encoding and channel capacity, modems and modulation techniques, error and line control techniques, protocols, data compression techniques, switching technologies, common carriers' services and facilities and regulatory requirements. Prerequisites: graduate student standing with no deficiencies.

**CSCI 509 Foundations of Software Engineering (3)**

Fundamental software engineering techniques and methodologies commonly used during software development are studied. Topics include various life cycle models, project planning and estimation, requirements analysis, program design, construction, testing, maintenance and implementation, software measurement, and software quality.

**CSCI 510 Principles of Artificial Intelligence (3)**

In this course, the highly diverse field of artificial intelligence is explored from a theoretical and practical perspective. A variety of schemes for representation and reasoning will be discussed. Topics focusing on representation include symbolic, rule-based, frame-based, object, and semantic net systems. Topics focusing on reasoning include inductive, abductive and deductive systems, non-monotonic reasoning, temporal reasoning, model-based reasoning, and planning. Common LISP and Prolog will also be briefly discussed.

**Electives**

Courses listed in this section can be used by students in designing a program which meets their specific needs and interests. Students may concentrate on one of five areas - theoretical computer science, computer design and system software, specialized applications, network security, and intelligent systems.

**CSCI 511 Automata Theory and Formal Languages (3)**

Covers finite state machines and their limitations, tape automata and their limitations, Turing machines and basics of recursive functions, Post and Thue systems, word problems, phrase-structure grammars, and the different versions of the halting problem.

**CSCI 512 Computational Complexity (3)**

Computational complexity and its applications in computer science and cryptography are explored. Basic concepts of polynomial, NP, and NP-Complete problems are developed in both intuitive and rigorous forms. Methods for determining the tractability of problems, the polynomial hierarchy, techniques and complexity of approximation algorithms, and current topics in complexity are also covered. The course also covers complexity topics in cryptography.

**CSCI 513 Parallel Algorithms (3)**

Introduces students to parallel computation and algorithm design for parallel machines. Topics include adapting conventional algorithms to fit parallel execution models and stochastic methods suitable for massively parallel machines. Selected readings from the literature will be required.

**CSCI 518 Special Topics in Theoretical Computer Science (3)**

**CSCI 521 Advanced Computer Architectures (3)** In this course novel computer architectures are explored. Topics include parallel machines, multiprocessor and multi computer machines, dataflow machines, biologically inspired architectures, quantum computers and various interconnection structures. Performance evaluation aspects will also be considered. Selected readings from the literature will be required.

**CSCI 522 Advanced Operating Systems (3)**

Presents the design principles and applications of advanced operating systems. Topics include communications in distributed systems based on layered protocols, asynchronous transfer mode networks, the client-server model, remote procedure call, synchronization and deadlock in distributed systems; Various concurrency algorithms will also be presented.

**CSCI 523 Advanced Database Systems (3)**

Investigates the principles of object-oriented and distributed database systems, with an emphasis on algorithms and protocols for handling the complexity of managing data in a distributed environment. Topics include object-oriented and extended relational data models, object identity and persistence, replication, distributed concurrency control, distributed query processing and optimization, data security, semantic integrity control, optimal resource allocation, reliability, and failure recovery.

**CSCI 524 Human-Computer Interfaces (3)**

Covers the principles, concepts, and objectives of human engineering for interactive systems. Topics include definition of human factors, syntactic and semantic models of user behavior, design principles for user interfaces, interface presentation techniques, and evaluation methods. Selected readings from current research literature will be assigned.

**CSCI 525 Compiler Design (3)**

Explores the principles, algorithms, and data structures involved in the design and construction of compilers. Topics include context-free grammars, lexical analysis, parsing techniques, symbol tables, error recovery, code generation, and code optimization. Each student will implement a compiler for a small programming language.

**CSCI 531 Principles of Computer Graphics (3)**

Techniques and algorithms for creating and displaying a variety of 2-d and 3-d objects on raster-scan devices are discussed. The mathematics underlying 2-d and 3-d rotations, reflections, scaling and perspective transformations will be presented. Algorithms for clipping lines and polygons, curve fitting, surface rendering, etc. will also be presented.

**CSCI 532 Image Processing (3)**

Fundamentals of image processing are covered, with an emphasis on digital techniques. Topics include digitization, enhancement, segmentation, the Fourier transform, filtering, restoration, reconstruction from projections, and image analysis including computer vision. Concepts are illustrated by laboratory sessions in which these techniques are applied to practical situations, including examples from biomedical image processing.





**CSCI 533 Computational Geometry (3)**

Computational Geometry is used to developing algorithms for solving geometric problems in continuous spaces. It has deep connections to classical mathematics, theoretical computer science, and practical applications such as computer vision, graphics, and engineering such as CAD. The problems dealt with are typically posed as spatial decompositions such as polygon partitioning and triangulation, convex hulls, Voronoi diagrams and Delaunay triangulations, geometric search, and curves and surfaces.

**CSCI 534 Bioinformatics (3)**

A variety of algorithms for the representation and visualization of genetic data will be presented in this course. Appropriate material drawn from the fields of biology, physics and chemistry will also be presented so that the nature of genetic data can be understood. Extensive readings will be required.

**CSCI 538 Special Topics in Applications (3)**

**CSCI 551 Computer Network Architectures and Protocols (3)**

Covers the architecture and principles of operation of integrated broadband networks particularly those capable of supporting different types of traffic (voice, video, data, graphics) over local and wide area networks. The focus in this course is on high-speed networks (LANs, WANs), switching designs and architectures, router designs and routing protocols, MPLS, IPv6, optical networking, satellite communications, and network performance evaluation. Hands-on practical projects are an integral part of the course.

**CSCI 552 Network Programming (3)**

Provides programming skills useful for network designers and network application developers. It first covers a brief introduction to networking concepts and protocols. The course then covers topics including: the UNIX model, socket programming (TCP/UDP/raw sockets) for client-server systems, Internet addressing, application protocols (SMTP, DNS, Telnet, ftp), Remote Procedure Calls (RPCs), multicasting, secure protocols (e.g. IPsec). The course places a strong emphasis on the completion of hands-on projects.

**CSCI 553 Network Security (3)**

Provides students with a comprehensive overview of fundamental network security concepts, techniques, and issues. The course covers topics including: security basics and fundamentals, attackers and their attacks, secure data transmission protocols, cryptography, key management, security management, intruders and intrusion detection, operational security policies and procedures. This course also covers security approaches deployed in local and wide area networks. Hands-on practical projects are an integral part of the course.

**CSCI 554 Wireless and Mobile Computing (3)**

Ubiquitous access of information anywhere, anytime, from any device is being made possible to a large extent by wireless and mobile computing technologies. This course discusses key concepts of wireless communications, wireless networks including WiFi, Bluetooth, WiMax, ad hoc networks, cellular technologies (CDMA, UMTS, etc), mobility protocols (including mobile IP, SIP, SCTP), internetworking design architectures for heterogeneous wireless networks, mobility management techniques (handoff and location management), wireless Web (WAP), energy management algorithms, and sensor networks. The course places a strong emphasis on the completion of hands-on projects.

**CSCI 558 Special Topics in Network Security (3)**

**CSCI 571 Logic Programming (3)**

Provides an introduction to Prolog, the theoretical foundations of logic programming, and current research on applications of logic within artificial intelligence. Topics include a review of first-order logic, the resolution principle, semantics of logic programs and alternative proof procedures. Alternatives to first-order logic such as modal logics for representing and reasoning about knowledge and belief, and non monotonic and default logics will also be discussed. Assignments include problem sets and a number of Prolog programs

**CSCI 572 Evolutionary Computing (3)**

Focuses on concepts and techniques from genetic algorithms, genetic programming, and artificial life for modeling and developing software agents capable of solving problems as individuals and as members of a larger "community" of agents. Algorithms for solving optimization and learning problems will be stressed.

**CSCI 573 Neural Networks (3)**

Provides an introduction to concepts in neural networks and connectionist models. Topics include parallel distributed processing, learning algorithms and applications. Specific networks discussed include Hopfield networks, bidirectional associative memories, perceptrons, feed forward networks with back propagation, and competitive learning networks, including Kohonen and Grossberg networks.

**CSCI 574 Natural Language Processing (3)**

Covers the concepts and methods for the automated processing of natural language. Topics include pattern matching, parsing, dictionary and lexical acquisition, semantic interpretation, anaphoric reference, discourse analysis, and text generation and understanding.

**CSCI 575 Speech-based Computing (3)**

Topics addressed in detail in this course include the anatomy, physiology and physics of speech generation and reception, speech signal analysis/synthesis and computer representations of spoken data. Systems to be discussed include text-to-speech, speech to text, multilingual speech software and speaker identification/verification.

**CSCI 578 Special Topics in Intelligent Systems (3)**

**CSCI 598 Master's Project (3)**

**CSCI 600 Master's Thesis** [3 credits/term; 6 credits maximum]

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***ELECTRICAL ENGINEERING (BSEE AND MSEE)***

**CCEN-101 Introduction to Engineering (2)**

Engineering and its related technologies offer exciting and challenging careers for youngsters. While science and mathematics are essential foundations for engineering and technology, they can be intimidating as a first introduction to these fields. This course presents an alternative approach that introduces freshmen students to engineering through carefully chosen experiments that appeal to the students' direct, intuitive experience of the world around them. In addition, students in this course will learn how to analyze, interpret and present the collected data using MATLAB and MS-Excel. Lab 6 hrs., Pre-requisite: Engineering Freshman Status.

**ELEC 105 Introduction to Electrical and Computer Engineering (2)**

Introduces basic concepts in electrical and computer engineering in an integrated manner. Also introduces basic concepts of practical applications, illustrates a logical way of thinking about problems and their solutions, and conveys to the student the excitement of the profession. Analysis, construction, and testing of simple electrical and digital systems are discussed. Specific topics include notion of electrical current and voltage, simple digital systems, simple combinational logic circuits, and basic engineering computations using computer programs. Permission of advisor or instructor.

**ELEC 221 Electrical Circuits I (3)**

Covers Ohm's and Kirchoff's Laws, Thevenin and Norton Equivalents, analysis of RL and RC networks with and without forcing functions, the RLC circuit, and computer-aided circuit simulation. Lec. 3 hrs., Prereq.: PHYS 201, Co-req: ELEC 223.

**ELEC 222 Electrical Circuits II (3)**

Covers the sinusoidal forcing functions, sinusoidal steady-state responses using phasors, polyphase circuits, complex frequency, and frequency responses, and computer-aided circuit simulation. Lec. 3 hrs., Prereq.: ELEC 221. Co-req.: ELEC 224.



**ELEC 223 Electrical Circuits I Laboratory (1)**

A laboratory course to accompany Electrical Circuits I. This course is the first in a sequence of laboratory courses intended to develop a strong foundation in designing, assembling, and testing electrical circuits. Lab 3 hrs, Coreq: ELEC 221

**ELEC 224 Electrical Circuits II Laboratory (1)**

Continues Electrical Circuits I Lab. Lab 3 hrs., Prereq: ELEC 223. Co-req.: ELEC 222.

**ELEC 301 Engineering Mathematics (3)**

Covers Fourier series and integral, Laplace transform, periodic functions, partial differential equations, Bessel functions and Legendre polynomials, complex analytic functions, and Taylor and Laurent series. Lec. 3 hrs., Prereq.: MATH 152.

**ELEC 307 Probability and Statistics for Engineers (3)**

Covers purpose of statistics, methods of representation, sample mean, sample variance, random experiments, probability, random variable, discrete and continuous distributions, binomial, Poisson and normal distribution sampling. Lec. 3 hrs., Prereq.: MATH 152.

**ELEC 308 Applied Numerical Analysis For Engineers (3)**

Covers systems of linear equations: elimination, iteration, relaxation methods, eigenvalue problems, nonlinear equations, numerical differentiation and integration, interpolation methods of finite differences. Lec. 3 hrs., Prereq.: ELEC 152.

**ELEC 311 Computer Organization I (3)**

Covers foundations of digital design and digital computer systems, representation of information using the binary number system, introduction to Boolean algebra, design of combinational logic circuits, design of sequential logic circuits, design of registers, counters and memory units, and introduction to the use of register transfer language and micro-computer system design. Lec. 3 hrs., Prereq.: ELEC 221. Co-req.: ELEC 313.

**ELEC 312 Computer Organization II (3)**

Examines sequence and control (hardwired and microprogrammed control), instruction set architecture, CPU design, and input-output interfaces for computer design. In addition, microprocessor and microprocessor-based digital system design is introduced. Lec. 3 hrs., Prereq: ELEC 311, Co-req: ELEC 314.

**ELEC 313 Computer Organization I Laboratory (1)**

Covers experiments in the principles of digital circuits. Lab 3 hrs., Co-req.: ELEC 311.

**ELEC 314 Computer Organization II Laboratory (1)**

Covers experiments/computer simulations related to the design of computers and microprocessor based digital systems. Lab 3 hrs., Co-req: ELEC 312

**ELEC 351 Electronics I Lecture (3)**

Covers semiconductor diodes, bipolar junction transistors (BJT), and junction field effect transistors (JFET); design of BJT and JFET amplifiers, and computer-aided design and circuit simulation. Lec. 3 hrs., Prereq.: ELEC 222. Co-req.: ELEC 353.

**ELEC 352 Electronics II Lecture (3)**

Covers operational amplifiers, frequency response characteristics of transistor amplifiers, feedback amplifiers, oscillators, filters, and pulsed wave-forms. Computer-aided design and circuit simulation. Lec. 3 hrs., Prereq.: ELEC 351. Co-req.: ELEC 354.

**ELEC 353 Electronics I Laboratory (1)**

A laboratory course to accompany Electronics I. Includes experiments on discrete transistor characteristics and circuits. Lab 3 hrs., Co-req.: ELEC 351.

**ELEC 354 Electronics II Laboratory (1)**

Continues Electronics Lab I. Includes experiments on design of amplifiers and op-amp circuits. Lab 3 hrs., Co-req.: ELEC 352.

**ELEC 356 Physical Electronics (3)**

Covers the growth and properties of physical and optical semiconductor materials; kinetics of charge carriers in electronic devices; design, fabrication, and operation of integrated circuits and

devices, and optoelectronic devices including LEDs, lasers and, solar cells. Lec. 3 hrs., Prereq.: PHYS 203.

**ELEC 361 Electromagnetic Theory (3)**

Covers vector calculus, orthogonal coordinates, Coulomb and Gauss laws, scalar potentials, dielectrics, capacitance, and static electric and magnetic fields and their interaction with matter, as well as Laplace and Poisson equations. Lec. 3 hrs., Prereq.: PHYS 201, ELEC 222, PHYS 202.

**ELEC 362 Electromagnetic Theory II (3)**

Continues of ELEC 361 with emphasis on Ampere's law, Biot-Savart Law, vector potential, magnetic circuits, Faraday's Law, the application of Maxwell's equations, plane waves, and the Poynting vector. Lec. 3 hrs., Prereq.: ELEC 361.

**ELEC 371 Signals and Systems I (3)**

Introduces principles and techniques of continuous and discrete time linear systems analysis. Topics include signal representation, properties of systems, convolution, Fourier series and transform, FFT, sampling theorem, filtering, Laplace and Z-transform techniques. Lec. 3 hrs., Prereq.: ELEC 351, ELEC 301.

**ELEC 374 Signals and Systems I Lab (1)**

A lab accompanying ELEC371 to introduce students to Signals and Systems through Matlab.

Lab. 3 hrs., Co-req.:ELEC371

**ELEC 457 Digital Electronics (3)**

Introduces integrated circuit (IC) technology. Digital logic families (TTL, TTL (LS), NMOS, CMOS, ECL, IC's) and digital IC's, examples of digital and analog IC design, memory circuits are also examined. Lec. 3 hrs., Prereq.: ELEC 352.

**ELEC 458 Digital Signal Processing (3)**

Examines sampling theorem, Z-transform, FFT techniques, design of IIR and FIR filters, effects of quantization and finite-word-length arithmetic. Lec. 3 hrs., Prereq: ELEC 371.

**ELEC 45 Introduction to Digital Computer Architecture and Design (3)**

Provides an understanding of the structure and operation of contemporary computer systems from the instruction set architecture level through the register transfer implementation level. Also explores theory and application of computation, levels of abstraction, instruction set design, assembly language programming, processor data paths, data path control, pipeline design, design of memory hierarchies, memory management, and input/output. A contemporary behavioral/functional/logical simulator will be used for projects. Prereq.: MATH-251/253, ELEC 312/314

**ELEC 460 Antenna Design Theory Lab (1)**

This laboratory course accompanies ELEC 466 and emphasizes the hands-on analysis/design of operational antennas with the aid of modern equipments for measurement and testing. Various software packages are applied in the Lab; 3 hrs.; Co-req.: ELEC 466.

**ELEC 461 Electrical Energy Conversion (3)**

Covers theory of electromechanical energy conversion, DC motors and generators, power electronics, AC rotating machine theory. Lec. 3 hrs., Prereq.: ELEC 352/354. Co-req.: ELEC 462.

**ELEC 462 Electrical Energy Conversion Laboratory (1)**

Includes experiments on DC and AC motors and generators. Lab 3 hrs., Co-req.: ELEC 461.

**ELEC 463 Energy Systems (3)**

Examines principles of electrical power generation, transmission, and distribution with applications to present energy problems. Lec. 2 hrs., ELEC 352, ELEC 362.

**ELEC 465 Introduction to Microwaves (3)**

Covers the analysis and design of transmission lines, microwave systems, and wave-guides. Smith chart characteristics, active and passive components, and measurement techniques. Lec. 3 hrs., Prereq.: ELEC 362.



**ELEC 466 Antenna Design Theory and Applications (3)**

Covers the design and construction of operational antennas and testing of the antennas so that students get an understanding of most types of antennas in common use. Lec. 3 hrs., Prereq.: ELEC 362, ELEC 465. Co-req.: ELEC 460.

**ELEC 467 Fundamentals of Communication Systems Lecture (3)**

Introduces the concepts underlying analog and digital communication systems. Topics include amplitude modulation, phase and frequency modulation, sampling and quantization theory, and pulse modulation. Effect of noise on the performance of these modulation techniques are covered. Lec. 3 hrs., Prereq: ELEC 371. Co-req.: ELEC 476.

**ELEC 468 Communication Electronics (3)**

Examines the analysis and design of communication circuits, including coupling networks, mixers, RF amplifiers; and AM and FM modulators and demodulators; AGC, AFC; phase-locked loops. Lec. 3 hrs., Prereq.: ELEC 352, ELEC 362.

**ELEC 469 Digital Communication Systems Lecture (3)**

Covers statistical methods in the analysis of digital information transmission systems, threshold effects, phase-locked demodulation, probability of error, and optimum receivers. Lec. 3 hrs., Prereq: ELEC 467, ELEC 307.

**ELEC-470 Introduction to Control Systems & Applications (3)**

This course examines some of the techniques available for analysis and design of continuous time and discrete time feedback control systems. Topics include modeling, performance measures, transfer functions, generalized error coefficient, introduction to state-space methods, stability, controllability and observability, root locus and frequency domain analysis, compensation methods, state feedback and pole placements control system design. Lec. 3 hrs., Prereq.: ELEC 371. Co-req.: ELEC 477

**ELEC 471 Digital Control Systems (3)**

Introduces the analysis and design of digital control systems, Z-transform, discrete linear systems, state-space and frequency domain analysis, and simulation and analysis using microprocessors. Lec 3 hrs., Prereq: ELEC 470, 473.

**ELEC 472 Signals and Systems II (3)**

Provides mathematical tools for analysis of time-invariant and time-varying linear systems. State-space approach to analysis of systems is covered. Nonlinear and multi-variable systems are introduced. Lec. 3 hrs., Prereq.: ELEC 471.

**ELEC 473 Digital Communication Systems Laboratory (1)**

This is a laboratory course in digital communication. Experiments include sampling, frequency division, multiplexing and pulse code modulation. It also includes simulation techniques of digital communication systems. The course is intended to supplement the course ELEC 469, Lab 3 hours, Coreq: ELEC 469

**ELEC 474 Advanced Topics in Electrical Engineering I (3)**

Senior elective. Topic is to be chosen from one of the many concentrations of electrical engineering. Lec. 3 hrs., Prereq.: Permission of instructor

**ELEC 475 Advanced Topics in Electrical Engineering II (3)**

Senior elective. Continuation of ELEC 474. Lec 3 hours, Prereq: Permission of instructor

**ELEC 476 Fundamentals of Communication Systems Laboratory (1)**

This is a laboratory course in RF and digital communication. Experiments include operation of phase-locked loop, AM and FM modulation, frequency division multiplexing, and pulse-code modulation. Lab 3 hrs., Prereq: ELEC 307, Co-req.: ELEC 467.

**ELEC-477 Introduction to Control Systems & Applications Lab (1)**

Experiments include simulation of continuous time and discrete time feedback control systems, such as modeling, performance measures, transfer functions, generalized error coefficient, introduction to state-space methods, stability, controllability and observability, root locus and frequency domain analysis, compensation methods, state feedback and pole placements control system design. Lab 3 hrs., Co-req.: ELEC 470.

**ELEC 478 Digital Integrated Circuit Design Lecture (3)**

Studies the design process of VLSI CMOS circuits. Also covers all the major steps of the design process, including logic, circuit, and layout design. A variety of computer-aided tools are discussed and used to provide VLSI design experience that includes design of basic VLSI CMOS functional blocks, and verification of the design, testing, and debugging procedures. Prereq.: ELEC 312, 352. Co-req.: ELEC-479.

**ELEC 479 Digital Integrated Circuit Design Laboratory (1)**

Provides VLSI design experience that includes design of basic VLSI CMOS functional blocks, verification of the design, testing, and debugging. Several complex VLSI projects will be submitted for fabrication. Co-req.: ELEC 478.

**ELEC 480 Digital System Design and Synthesis Lec (2)**

Introduces the techniques of modeling digital systems at various levels of abstraction and computer-aided design algorithms applied to these models to support design and analysis tasks. Covers modeling through the use of a modern hardware description language (VHDL/Verilog), test generation, event-driven simulation algorithms, and physical design used to map the synthesized logic design onto physical IC area. This is not a how-to course on using CAD tools; it is a study of the algorithms used by CAD tools. Prereq.: ELEC 312

**ELEC 483 Digital System Design and Synthesis Lab (1)**

The course emphasizes the use of computer-aided design (CAD) tools in the description, modeling, simulation, verification and testing of digital systems. Alternative coding styles and methodology used for combinational and sequential digital logic designs are evaluated. The use of Field Programmable gate arrays is integrated into the course as the target physical domain, Lab 3 hrs., Prereq: ELEC 312, Coreq: ELEC 480

**ELEC 495 Senior Project I (3)**

Conceptualization, design, building, testing, and promulgation of an electrical engineering project is carried out by the student under supervision of a faculty member. Lab 6 hrs., Prereq.: ELEC 312, 352, 362.

**ELEC 496 Senior Project II (3)**

Continues the design project, Senior Project I. Students will consider feasibility of design project, the effect of economic factors on the design, and make presentations in oral and written form for evaluation. Lab 6 hrs., Prereq.: ELEC 495.

**ELEC-455/555 Adaptive Filters**

The theory and design techniques of finite-impulse response filters. Stationary discrete-time stochastic processes, Wiener filter theory, the method of steepest descent, adaptive transverse filters using gradient-vector estimation, analysis of the LMS and RLS algorithm. Adaptive filters design and software/hardware implementations. Application examples in noise canceling, channel equalization, and array processing. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lec. 3 hrs., Prerequisite: ELEC-458/558, Graduate standing or consent of instructor.

**ELEC-458/558 Digital Signal Processing I**

Time and frequency analysis of discrete- time signals and systems. Fast implementations of the DFT and its relatives. IIR and FIR digital filter design, implementation, and quantization error analysis. Decimation, interpolation and introduction to multirate digital signal processing. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lec. 3 hrs., Prerequisite: ELEC-371 or consent of instructor.



#### **ELEC-464/564 Digital Image Processing**

Fundamental principles and algorithms for digital image processing. Two-dimensional spatial frequency transforms. Image enhancement, histogram equalization, smoothing and sharpening. Image encoding, analysis, and segmentation. Feature extraction, and object and pattern recognition. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lec. 3 hrs., Prerequisite: ELEC-458/558 or consent of instructor.

#### **ELEC-468/568 Wireless Communications**

Cellular radio concepts: frequency reuse and handoff strategies. Large scale path loss models; fading and multipath: flat fading versus frequency selective fading; modulation schemes for mobile communication: narrowband versus spread spectrum; equalization; RAKE receiver; multiple access techniques; FDMA, CDMA; and co-channel interference and channel capacity. Common wireless standards. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lec. 3 hrs., Prerequisite: ELEC-307 and ELEC-371, graduate standing or consent of instructor.

#### **ELEC-469/569 Digital Communications I**

Basis functions, orthogonalization of signals, vector representation of signals, optimal detection in noise, matched filters, pulse shaping, intersymbol interference, maximum likelihood detection, channel cutoff rates, error probabilities, bandwidth, and power-limited signaling. Basics modulations schemes: ASK, FSK, PSK, QAM. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lec. 3 hrs., Prerequisite: ELEC-467, graduate standing or consent of instructor.

#### **ELEC-478/578 Digital Integrated Circuit Design Lecture**

Studies the design process of VLSI CMOS circuits. Also covers all the major steps of the design process, including logic, circuit, and layout design. A variety of computer-aided tools are discussed and used to provide VLSI design experience that includes design of basic VLSI CMOS functional blocks, and verification of the design, testing, and debugging procedures. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lec. 3 hrs., Prerequisite: ELEC 312, 352. Co-requisite: ELEC-479.

#### **ELEC-479/579 Digital Integrated Circuit Design Laboratory**

The course provides VLSI design experience that includes design of basic VLSI CMOS functional blocks, verification of the design, testing, and debugging. Several complex VLSI projects will be submitted for fabrication. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lab. 1 hrs., Co-requisite: ELEC-478/578.

#### **ELEC-480/580 Digital System Design and Synthesis**

The course introduces the techniques of modeling digital systems at various levels of abstraction and computer-aided design algorithms applied to these models to support design and analysis tasks. Covers modeling through the use of a modern hardware description language (VHDL/Verilog), test generation, event-driven simulation algorithms, and physical design used to map the synthesized logic design onto physical IC area. This is not a how-to course on using CAD tools; it is a study of the algorithms used by CAD tools. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Prerequisite: ELEC-312, graduate standing or consent of instructor.

#### **ELEC-483/583 Digital System Design and Synthesis Laboratory**

The course emphasizes the use of computer-aided design (CAD) tools in the description, modeling, simulation, verification and testing of digital systems. Alternative coding styles and methodology used for combinational and sequential digital logic designs are evaluated. The use of Field Programmable gate arrays is integrated into the course as the target physical domain. Students enrolled in the 500-level course will be required to complete additional work as stated in the syllabus. Lab 3 hrs., Prerequisite: ELEC-312, Co-requisite: ELEC-480, graduate standing or consent of instructor.

#### **ELEC-507 Probability and Random Processes**

Foundations for the engineering analysis of random processes: Review of probability theory, Introduction to stochastic processes, Continuous time and discrete time processes, Mean functions, correlation functions, covariance functions, noise, Strict- and wide-sense stationarity, ergodicity, Gaussian processes, power spectral densities, mean square estimation, Markov processes. Prerequisite: Graduate standing and understanding of probability at the level of ELEC-307 or consent of instructor.

#### **ELEC-559 Computer Architecture**

Advanced computer architectures with emphasis on multiprocessor systems and the principles of their design and cost/performance factors. Instruction set design and implementation, RISC vs. CISC instruction sets; datapath and controller design, pipeline design; fixed and floating-point arithmetic; memory hierarchy designs, caches, memory systems; I/O systems and their interconnect. Interrupt and exception. Prerequisite: ELEC-459, graduate standing or consent of instructor.

#### **ELEC-571 Linear systems**

Methods of linear-system analysis, in both time and frequency domains, are studied. Techniques used in the study of continuous and discrete systems include state-variable representation, matrices, Fourier transforms, Laplace transforms, inversion theorems, sampling theory, discrete and fast Fourier transforms, and Z-transforms. Computer simulation, analysis, and design software packages are used. Graduate standing and understanding of Signal & Systems at the level of ELEC-371 or consent of instructor.

#### **ELEC-574 Digital Information Theory**

Entropy and mutual information, Huffman coding, Shannon's source coding theorem, channel capacity, block coding error bounds, random coding bounds, multi-user information theory, random access channels and protocols, multi-access coding methods, network information theory. Lec. 3 hrs., Prerequisite: ELEC-458/558, graduate standing or consent of instructor.

#### **ELEC-575 Wireless Networks**

Fundamental concepts of wireless networks: network architecture for personal communications systems, wireless LANs, radio, tactical and other wireless networks, and design and analysis of protocols on a regular basis. Lec. 3 hrs., Prerequisite: ELEC-468/568, graduate standing or consent of instructor.

#### **ELEC-584 Digital System-level Design**

Digital system designs for Digital System Processors and Communications systems: Applications include matched filters, FFT, QAM Modulators, Raised Cosine Filter, Reed-Solomon and hamming code decoders, error detection and correction circuits, demodulation, and soft and hard decision decoders. Extensive use of hardware and software system-level design tools and packages. Prerequisite: ELEC-480/580, graduate standing and understanding of computer organization at the level of ELEC-459 or consent of instructor.

#### **ELEC-585 Design of a System on a Chip (SoC)**

System-level design and optimization of multiprocessor systems on a reconfigurable chip. System-level design methodologies. System level design representations and modeling languages. System level modeling. System specification, algorithm modeling, decomposition, IP selection. Synthesis and co-verification of system components. Extensive use of state-of-the-art of CAD tools and FPGA boards. Lab 3 hrs., Prereq: ELEC-480/580, graduate standing or consent of instructor.

#### **ELEC-586 Advanced Embedded System design**

Advanced embedded system design principles and practices. Emphasizes formal design methodologies such as hardware-software co-design and co-verification, performance optimization, distributed embedded systems. Soft core and hard core embedded microprocessors. Prerequisite: ELEC-480/580, graduate standing or consent of instructor.



### **ELEC-658 Digital Signal Processing II**

Overview of z-transform, FFT, IIR and FIR filters. Multirate digital signal processing. Optimum filtering of noisy signals. Adaptive digital filters. Power spectrum estimation. Wavelet transform. Interference canceling. Selected applications of DSP techniques in speech, communications and image processing. Lec. 3 hrs., Prerequisite: ELEC-458/558, graduate standing or consent of instructor.

### **ELEC-659 Advanced Computer Architecture**

High performance computer architectures: instruction set principles, pipelining, multiprocessing systems, parallel processing, instruction level parallelism, fine-grain and coarse grain parallelism, SIMD, MIMD, multiple instruction issue, data coherency, memory hierarchy design, interconnection networks, vector processors. Prerequisite: ELEC-559, graduate standing or consent of instructor.

### **ELEC-665 Multimedia Communications**

Comprehensive coverage of media compression, synthesis and recognition, media communications and networking, and standards for audiovisual communications over wired and wireless networks. Lec. 3 hrs., Prerequisite: ELEC-469/569, graduate standing or consent of instructor.

### **ELEC-669 Digital Communications II**

The theory and practice of efficient digital modulations over linear dispersive channels, including adaptive equalization and synchronization, multiuser detection, Lec. 3 hrs., Prerequisite: ELEC-469/569, graduate standing or consent of instructor.

### **ELEC-673 Coding Theory and Applications**

The theory and practice of error control coding with emphasis on linear, cyclic, convolutional, and parallel concatenated codes (Hamming codes, Repetition codes, polynomial codes, Reed Solomon Codes). Turbo codes, Viterbi decoding and applications. Lec. 3 hrs., Prerequisite: ELEC-469/569, graduate standing or consent of instructor.

### **ELEC-678 Advanced Digital Integrated Circuit Design Lecture**

Design and implementation of very-large-scale-integrated systems (VLSI) with emphasis on full-custom chip design. Topics will include device and interconnect modeling, static and dynamic logic families, latch and flop design, RAM design, ALU design, low power techniques, power supply and clock distribution, signal integrity, and I/O design. Extensive use of CAD tools for IC design, simulation, and layout verification. Lec. 3 hrs., Prerequisite: ELEC-478/578 and ELEC-478/578, graduate standing or consent of instructor.

### **ELEC-692 Advanced Topics in Signal and Image Processing**

Topics of current interest in signal and image processing. Content may vary from offering to offering. Lec. 3 hrs., Prerequisite: Graduate Standing or consent of instructor.

### **ELEC-693 Advanced Topics in Digital Communications**

Topics of current interest in digital communications. Content may vary from offering to offering. Lec. 3 hrs., Prerequisite: Graduate Standing or consent of instructor.

**ELEC-599 Master's Project.** Lab 3 hrs, Prerequisite: Graduate Standing or consent of instructor.

**ELEC-699 Master's Thesis.** Lab 6 hrs, Prerequisite: Graduate Standing or consent of instructor.

## **Civil Engineering**

### **CVEN 112 Engineering Experimentation (3)**

Introduces the fundamentals of engineering experimentation. Modern equipment and instrumentation used in engineering laboratories are presented with emphasis on measurements. State-of-the-art instruments for measurement of angle, distance, pressure and temperature are used to illustrate the importance of understanding errors and their influence on measurements. The use of electronics in measuring instruments (both analog and digital) is demonstrated through the use of civil and mechanical engineering applications. Lec. 3 hrs.

### **CVEN 116 Programming Applications (3)**

Presents problem-oriented course using commercial generic software (word processing, spreadsheet, database, presentation and selected applications). The students are provided a fundamental introduction to the software and then use in the solution of engineering problems. Lec. 3 hrs.

### **CVEN 201 Engineering Mechanics I (3)**

Covers statics of particles and rigid bodies; equilibrium, distributed forces; centroids; center of gravity; structure-trusses, frames, machines; forces in beams and cable; friction; moments of inertia. Lec. 3 hrs.: PHYS 201.

### **CVEN 202 Engineering Mechanics II (3)**

Covers kinematics and kinetics of a particle. Planar kinematics of a rigid body; planar kinetics of a rigid body including force and acceleration; work and acceleration; work and energy; impulse and momentum, and vibrations. Lec. 3 hrs., Prereq.: CVEN 201.

### **CVEN 206 Mechanics of Solids (3)**

Covers axial forces, shear and moment, stress and axial loads, strain and axial deformation, torsion of shaft, stress in beams, columns, deflection of beams, energy methods, and elemental indeterminate problems. Lec. 3 hrs., Prereq.: PHYS 201.

### **CVEN 207 Mechanics of Solids and Materials Laboratory (1)**

Covers introduction-purpose, scope, equipment/ apparatus, interpreting the text results, errors, writing reports. Experiments include physical properties of concrete, mechanical response of steel, shearing force, bending moment, member forces in truss, deflection, hinged arches, portal frames, suspended center span bridge. Lab 2 hrs., Co-req: CVEN 206. Prereq.: CVEN 205.

### **CVEN 301 Essentials of Surveying (2)**

Introduces the student to the basic principles of measurement at or near the surface of the earth. The fundamental concepts of observing and establishing the linear and angular measurements necessary to determine the horizontal and vertical position of points required for engineering works are presented. The theory of errors associated with large scale measurements and the "management" of them through survey procedures and analysis are presented. The student will develop an understanding of the "tools" (procedures and software) necessary to process field data and produce horizontal and vertical control information (e.g. adjusted traverses, bench mark elevations, contour maps, etc.). Lec. 3 hrs., Prereq.: CVEN 202.

### **CVEN 302 Surveying Laboratory(1)**

Introduces and practices the use and care of the instruments necessary to determine horizontal and vertical positions on or near the surface of the earth are presented. The student will develop an understanding of the application of the surveying procedures required to establish horizontal and vertical control points. The student will perform field exercises for the control of horizontal and vertical positions associated with engineered construction. Instruments used include levels (manual & automatic), theodolites (direction & repeating), distance measuring devices (tapes & electronic). Direct and indirect methods for observing and establishing measurements are covered. Prac. 42 hrs., per semester, Co-req.: CVEN 301.

### **CVEN 308 Applied Numerical Analysis for Engineers (3)**

Covers modeling and error analysis, roots of equations; systems of linear algebraic equations, curve fitting; numerical differentiation and integration; ordinary differential equations; partial differential equations. Lec. 3 hrs., Prereq.: MATH 260.

### **CVEN 311 Theory of Structures Lecture (3)**

Analyzes statically determinate beams and trusses, methods of determining deflection of structures, influence lines and application for moving loads and indeterminate structures including continuous beams and frames. Covers approximate analysis of indeterminate structures computer analysis of structures and performance characteristics. Lec. 3 hrs., Prereq.: CVEN 206.



**CVEN 313 Theory of Structures Laboratory (1)**

Equipment/apparatus, writing reports; experiments determining internal forces, reactions and deflections of both determinate and indeterminate structures are studied. Computer-aided analysis of structures of both determinate and intermediate structures are examined. Prac. 2 hrs., Co-req: CVEN 311.

**CVEN 335 Design of Structures (3)**

Covers design of tension members, compression members, beams and columns, and simple connections, Analysis and design of reinforced concrete beams, slabs, columns, footings, and retaining walls using the ultimate strength method.

**CVEN 336 Design of Structures Lab (1)**

Topics covered in lecture are demonstrated through hands-on practical exercises, analysis and design. Commercially available structural software will be used. Prac. 3 hrs, Co-req: CVEN 335.

**CVEN 325 Hydrology and Hydraulics (3)**

Hydrologic Processes, Precipitation and precipitation analysis, Hydrologic losses and infiltration, Runoff processes and estimation, Fundamentals and fluid properties, flow in closed conduits, flow in open channels, and fluid measurement. Lec. 3 hrs., Prereq.: CVEN 201

**CVEN 325 Hydraulics and Hydrology Lab (1)**

Topics covered in lecture are demonstrated through hands-on practical exercises, lab experimentation, and use of computer modeling software. Prac. 3 hrs., Co-req: CVEN 325.

**CVEN 331 Principles of Geotechnical Engineering (3)**

Studies soil classifications, stress, and compressibility of soils, immediate and consolidation settlement, time rate of settlement, earth pressure on structures, permeability and seepage, slope stability analysis for application in engineering design. Lec. 3 hrs., Prereq.: CVEN 206, MECH 321.

**CVEN 332 Principles of Geotechnical Engineering Lab (1)**

Provides laboratory tests to determine the physical properties of soils for application in engineering design. Lab 3 hrs., Co-req: CVEN 331.

**CVEN 413 Design of Water and Waste Water Treatment Plants (3)**

Covers design of treatment plants, waste collection and disposal facilities, waste treatment plants, and cost estimation. Lec. 3 hrs., Prereq.: MECH 321.

**CVEN 464 Engineering Ethics & Professional Practice (1)**

Provides an introduction to the engineering profession, professional practice, engineering law and ethics. The course also offers opportunities to explore the social implications and environmental impacts of technologies and to consider engineers' responsibility to society.

**CVEN 481 Fundamental of Engineering Preparation (1)**

This course discusses examination preparation materials for the Fundamentals of Engineering (FE) exams—commonly called the EIT exams. Provides a brief overview of common engineering courses.

**CVEN 416 Advanced Structural Design (3)**

Covers forced-deformation responses of structures under complex loading, interaction of the structural components and their behavior for both the elastic and inelastic ranges, analysis of frames with nonprismatic members by moment distribution, slope deflection, and column analogy. Lec 3 hrs., Prereq.: CVEN 312.

**CVEN 417 Matrix Method of Structural Analysis (3)**

Covers analysis of highly indeterminate structures by the transfer matrix method, displacement matrix method, and the matrix forced method. Lec 3 hrs., Prereq.: CVEN 311, MATH 260.

**CVEN 418 Dynamics of Structure (3)**

Studies responses of free-vibration, harmonic, periodic, and dynamic loading; analysis of nonlinear structural responses for single and multi-degree systems, and effect of damping and inelastic action. Lec. 3 hrs., Prereq.: CVEN 202, CVEN 313

**CVEN 419 Design of Concrete Structures (3)**

Covers analysis and design of reinforced concrete slabs, beams, columns, footings, and frames using the ultimate strength method. Lec. 3 hrs., Prereq.: CVEN 312.

**CVEN 435 Foundation Design (3)**

Studies shallow foundation analysis and factors to consider for design, bearing capacity and settlement, mat foundations, piles, caissons, lateral earth pressures and retaining walls, site improvement techniques, design of support systems, sheet piles, and special foundation system. Lec. 3 hrs., Prereq.: CVEN 331.

**CVEN 436 Foundation Design Lab (1)**

Topics covered in lecture are demonstrated through hands-on practical exercises, analysis and design, Prac. 3 hrs., Co-req: CVEN 435.

**CVEN 441 Wastewater Engineering (3)**

Covers analysis and design of wastewater systems; unit operations and treatment kinetics; physical, chemical, and biological unit processes; principles of design of facilities for physical, chemical and biological treatment of wastewater; disposal of waste solids. Lec. 3 hrs., Prereq.: 3511 321.

**CVEN 442 Water Resources Engineering**

Introduction to urban water systems, Drinking water systems and their design and analysis, urban waste water systems and design of sanitary sewer systems, Urban storm water management, Urban storm sewer systems and their design and analysis, Erosion and sediment control. Lec. 3 hrs., Prereq.: 3511 321

**CVEN 475 Project Planning and Scheduling (3)**

Covers principles of planning, scheduling, and allocation of resources for construction projects. Study and application of critical path method (CPM) of network diagramming and calculation. Studies Program Evaluation and Review Techniques (PERT) and allocation of constrained resources and variation of schedules to optimize costs. Lec. 3 hrs., Prereq.: Senior Standing

**CVEN 476 Construction Project Management (3)**

Covers fundamental operations in construction, construction methods, selection of equipments, construction project management techniques, cost estimates, resource management, bidding and contracting.

**CVEN 447 The Theory of Shells (3)**

Studies theory and design of shell place by membrane and bending stress theories, application to the analysis and design of cylindrical shell, domes, paraboloids. Lec. 3hrs., Prereq.: CVEN 419.

**CVEN 448 Construction Techniques (3)**

Covers fundamental operations in construction, construction methods, selection of equipment, cost estimates, planning and scheduling construction projects. Lec. 3 hrs., Prereq.: Senior standing.

**CVEN 449 Environmental Engineering (3)**

Covers hydrology; ground water; physical, chemical, and biological properties of water; introduction to water and wastewater treatment processes; physical and chemical fundamentals of air pollution; solid waste management. Introductory course for environmental engineering. Lec. 3 hrs., Prereq.: 3511 321.

**CVEN 451 Urban Transportation Planning (3)**

Offers "hybrid" course that prepares the student for entry level employment in the field of transportation and/or graduate study in the field of transportation. The student is introduced to the concepts and fundamental tools of transportation planning. The focus is on transportation for urban areas. Those aspects of transportation engineering necessary to better understand the "technical" solution to urban transportation problems and bring urban transportation "plans" to reality are also covered. Lec. 3 hrs., Prereq.: Junior/Senior Standing.

**CVEN 452 Urban Transportation Systems Design (3)**

Continues Urban Transportation Planning. The focus is on the geometric and physical design of urban transportation systems. The fundamentals of traffic engineering are presented and applied to the solution of urban road congestion. Team design projects address local contemporary transportation issues. Lec. 3 hrs., Prereq.: CVEN 451

**CVEN 461 Engineering System Analysis (3)**

Introduces system engineering, linear programming, duality theory and sensitivity analysis, network analysis, including CPM and PERT, integer programming, and game theory. Lec. 3 hrs., Prereq.: CVEN 308.

**CVEN 476 Construction Project Management (3)**

Covers elements of management as related to construction project; responsibilities of construction managers, on-site representatives, engineers, and inspectors; concept of developing the project team approach. Lec. 3 hrs., Prereq.: Senior Standing.

**CVEN 486 Construction Estimating (3)**

Interprets specifications as they affect project costs, quantity take-offs, including items necessary for construction but not called out on drawing and specifications; estimate of labor and costs. Lec. 3 hrs., Prereq.: Senior Standing.

**CVEN 487 Contracts and Specifications (3)**

Examines elements of contract as related to engineered construction project. Provides an introduction to the technical concepts of preparing and reviewing specifications necessary for bidding and contracting engineering projects. Lec. 3 hrs., Senior Standing

**CVEN 490 Special Topics in Civil Engineering (1-12)**

Deals with a specific area related to civil engineering that is not normally covered in regular courses and for which there is sufficient student interest; may be used as a technical elective. Prereq.: Senior standing in Civil Engineering.

**CVEN 491 Capstone CE Senior Project I (3)**

Provides group projects for senior students to design civil engineering systems. Oral presentations and written report are required. Prac. 20 hrs. effort. Prereq.: Senior standing in Civil Engineering.

**CVEN 492 Capstone CE Senior Project II (3)**

Continues of Senior Project in Civil Engineering. Final project report and presentation are required., Prac. 20 hrs. effort. Prereq.: CVEN 491.

**Mechanical Engineering****MECH 105 Introduction to CAD (3)**

Introduces the student to the general use of the computer as a design and production tool. The use of computer-aided design (CAD) program as a drawing and specification tool in component design and manufacture. Lec. 3 hrs.

**MECH 205 Materials Science (3)**

Covers electronic structure, crystal structure, and imperfection; elastic and plastic deformations; deformation processes, mechanical failure, creep, fatigue, and fracture. Lec. 3 hrs., Prereq.: CHEM 111.

**MECH 208 Thermodynamics (3)**

Covers thermodynamic concepts, zeroth law, thermodynamic properties, first law and second law analysis of closed and open systems; availability and irreversibility analysis; power and refrigeration cycles; mixture of gases and psychrometrics. Lec. 3 hrs.; Prereq.: PHYS 201.

**MECH 222 Engineering Measurements (3)**

Covers statistical data and error analysis; measuring systems, transducers; property measurements; signal conditioning; data output and analysis; analog and digital circuits; computer applications; Lec. 3 hrs.; Prereq.: ELEC 221.

**MECH 224 Engineering Measurements Laboratory (1)**

Involves experimentation in the measurements of different mechanical properties using analog and digital systems; use of sensors and transducers, and modern instrumentation technology. Lab 3 hrs.; Co-req: MECH 222

**MECH 305 Electronics and Instrumentation (3)**

Examines an extension of the physics topics learned in electricity and magnetism. The student is introduced to the application of the fundamental principles of DC and AC circuits, their essential components and analysis. Three-phase energy distribution systems are described. Selected aspects of solid state electronics, especially devices with application in civil and mechanical engineering, are explored. Lec. 3 hrs. Prereq: PHYS 202

**MECH 321 =Fluid Mechanics (3)**

Covers fluid properties and definitions, fluid statics, Archimedes principles, kinematics of fluids, control volume equations and analysis, Bernoulli equation, Euler equation, ideal flow equations, velocity potential and stream function, dimensional analysis, and viscous flows in pipes. Lec. 3 hrs., Prereq.: MATH 253

**MECH 322 Thermodynamics and Fluid Mechanics Laboratory (1)**

Examines methods of experimental fluid mechanics; and laboratory experiments in thermodynamics and fluid mechanics. Lab. 3 hrs., Prereq.: Co-req.: MECH 321.

**MECH 341 Analysis and Synthesis of Mechanisms (3)**

Teaches kinematics and dynamics of mechanisms; analysis of mechanisms, including linkage, cam, gear, synthesis of mechanism for prescribed performances; and computer-aided design of mechanisms. Lec. 3 hrs., Prereq.: CVEN 202, MATH 253.

**MECH 342 Analysis of Dynamic Systems (3)**

Covers mechanical vibrations of mechanical systems of single and multiple degrees of freedom, dynamic responses of engineering systems utilizing transfer function representation, and analysis of feed-back systems. Lec. 3 hrs., Prereq.: CVEN 202, MATH 260.

**MECH 351 Heat Transfer (3)**

Examines heat conduction equations, steady and unsteady state heat conduction problems; principles of heat convection, forced, free and phase-change convective heat transfer; and radiative physics and heat transfer. Lec. 3 hrs., Prereq.: MECH 321, MATH 260.

**MECH 352 Robotics and Manufacturing Laboratory (1)**

Provides a workshop practice course in metal cutting, forming, joining and fabrication. It includes laboratory experiments in pneumatic, hydraulic and electromechanical controls; experiments in computer-aided manufacturing; robot motions, control and programming. Lab. 3 hrs., Prereq.: MECH 205.

**MECH 356 Modern Manufacturing Processes (3)**

Covers engineering materials and manufacturing properties; production processes; mechanization and automation; CNC machining. Lec. 3 hrs., Prereq.: MECH 205, CVEN 206.

**MECH 361 Machine Design (3)**

Examines engineering design process; theories of failure; fundamentals of mechanical design; and computer-aided design of machine elements, bearings, gears, shafts, brakes and couplings; design projects. Lec. 3 hrs., Prereq.: CVEN 206, MECH 205.

**MECH 371 Design of Control Systems (3)**

Identifies and examines models of mechanical, electrical, fluid, thermal, electro-mechanical, thermofluid systems, transducers, digital devices, types of controllers, performance of feedback systems; simulation, root locus and frequency response methods for design of automatic control. Lec. 3 hrs., Prereq.: CVEN 202, MATH 260.

**MECH 373 Design of Control Systems Laboratory (1)**

Experiments illustrating the basic principles of three term (PID) thermal process control, multivariable systems and the basics of multivariable dynamics and control under steady state and transient conditions. Lab 3 hrs., Co-req. MECH 371



**MECH 381 Microcontrollers in Mechanical Engineering (3)**

Study of microcontrollers and their applications as control devices in mechanical systems. Review of electric circuits and semiconductor devices; digital logic, Boolean algebra, logic gates; microcontroller architecture - internal data handling and control, input and output; microcontroller programming languages; digital sensing and control through parallel and serial communication; microcontroller interrupt programming and servicing; actuation control via digital to analog conversion; direct digital control of stepper motor actuator. Lec. 3 hrs., Prereq.: MECH 222

**MECH 405 Engineering Experimentation (3)**

Covers experimentation theory; instrumentation systems; applications in mechanical engineering; microprocessors and peripherals; experiments in areas of mechanical engineering. Lec. 1 hr., Prac. 6 hrs., Prereq.: Senior standing in Mechanical Engineering.

**MECH 406 Engineering Economics (3)**

Studies the application of economic principles to engineering problems and their effects on engineering decision-making. Lec. 3 hrs., Prereq.: Senior Standing.

**MECH 456 Computational Fluid Mechanics (3)**

Studies equations of continuum mechanics and boundary conditions; finite difference techniques for one and multi-directional Navier-Stokes equations; introduction to variational calculus; and finite element methods for fluid flow and heat transfer problems. Lec. 3 hrs., Prereq.: MECH 321, MATH 260.

**MECH 457 Design for Noise Control (3)**

Covers acoustic terminology, acoustic related to noise and its control, techniques for the solution of noise problems, design of vibration isolators, energy absorbers, dissipative and reactive mufflers, enclosures, barriers and panel damping. Lec. 3 hrs., Prereq.: CVEN 202, MATH 260.

**MECH 458 Finite Element Methods for Mechanical Design (3)**

Examines finite element techniques, data stringing, mesh generation, data checking, element calculation, postprocessing and output plots; use of finite element computer programs for solving design problems. Lec. 3 hrs., Prereq.: MECH 361, MATH 260.

**MECH 461 Applied Thermodynamics and Energy Conversions (3)**

Studies the optimization of power plant, internal combustion engine, refrigeration, combustion and direct thermoelectric systems; and design of reciprocating compressors, engines, nozzles and diffusers. Lec. 3 hrs., Prereq.: MECH 351.

**MECH 462 Design of Energy Systems (3)**

Covers the design of ducting and piping systems, design of heat exchangers and fluid/rotor energy converters; characteristics of pumps, fans, compressors and turbines, computer-aided design and simulation of energy systems. Lec. 3 hrs., Prereq.: MECH 351.

**MECH 463 Mechanical Engineering Senior Laboratory I (1)**

Studies dynamic data acquisition, analysis and control, aerodynamic lift and drag, pump performance, experimental methods for measuring dynamic responses, and statistical theories of measurement. Lab. 3 hrs., Prereq.: Senior standing.

**MECH 464 Engineering Ethics & Professional Practice (1)**

Provides an introduction to the engineering profession, professional practice, engineering law and ethics. The course also offers opportunities to explore the social implications and environmental impacts of technologies and to consider engineers' responsibility to society.

**MECH 464 Mechanical Engineering Senior Laboratory II (1)**

Examines a computer simulation of dynamic systems, electronic and digital instruments, instrumentation and tests for measurement of performance of energy and dynamic system, and individual laboratory projects. Lab. 3 hrs., Prereq.: MECH 463.

**MECH 470 Thermal Environmental Engineering (3)**

Examines thermodynamic properties of moist air, psychrometric chart applications, refrigerants, binary mixtures, mechanical vapor compression refrigeration systems, absorption refrigeration systems, solar radiation calculations, and analysis of cooling towers and dehumidification coils. Lec. 3 hrs., Prereq.: MECH 351.

**MECH 473 Microelectromechanical Systems (MEMS) (3)**

Study of fabrication techniques for micro-electromechanical devices fabrication. Applications of MEMS such as mechanical, optical, magnetic, chemical/biological sensors/actuators are studied. Lec. 3 hrs., Prereq.: MECH 205, MECH 321 or ELEC 352 and ELEC 312 for EE students

**MECH 475 Gas Turbine Design (3)**

Covers gas turbine components, component characteristics and performance, gas turbine system configurations and optimization, energy transfer between fluid and rotors, aerodynamic data of turbine and compressor blades, aerodynamic design of turbine. Lec. 3 hrs., Prereq.: MECH 321

**MECH 476 HVAC Design (3)**

From a description of building functions, students research, create, plan, and design an energy efficient and cost effective building HVAC system. Lec. 3 hrs., Prereq.: MECH 461.

**MECH 478 Mechatronics (3)**

Fundamental concepts in mechatronics including instrumentation and measurements. Operating principles of electromechanical actuators, motors, sensors, drives, and analog motion control. Applications of microprocessors, and microprocessor interfacing to electromechanical systems. Lec. 3 hrs., Prereq.: MECH 381 or ELEC352 and ELEC 312 for EE students

**MECH 481 Fundamental of Engineering Preparation (1)**

Discusses examination preparation materials for the Fundamentals of Engineering (FE) exams—commonly called the EIT exams. Provides a brief overview of common engineering courses.

**MECH 483 Robot Mechanics and Control (3)**

Introduces types of industrial robots, sensing of robot motion and position, electro-mechanical, hydraulic and pneumatic actuators; sampled data, proportional, integral and derivative controller; robot coordinates, motion, dynamic and path control, as well as introduction to robot programming. Lec. 3 hrs., Prereq.: MECH 341, MECH 371.

**MECH 484 Design of Robot Mechanism (3)**

Introduces types of manipulators, manipulator parts and linkages, kinematic equations and their solutions; synthesis of manipulator mechanisms, path generation and motion trajectories, manipulator dynamics, payload and compliance, and computer-aided design of manipulator mechanisms. Lec. 3 hrs., Prereq.: MECH 483.

**MECH 486 Robot Interface Design (3)**

Covers microprocessor programming; control hardware characteristics; interfacing to robots, applications of electro-mechanical, hydraulic and pneumatic robots; robot programming languages; computerized numerical control, and design and optimization for manufacturing cells for specified manufacturing processes and cycles. Lec. 3 hrs., Prereq.: MECH 483.

**MECH 491 Senior Design Project I (3)**

Covers creative design, design problem formulation, structure of open-ended solution processes in system design; familiarization with technological resources; group projects on design of complex mechanical systems, feasibility studies, group presentation of project feasibility, and developing impact and planning statement. Lab 6 hrs., Prereq.: MECH 351, MECH 361, MECH 371.

**MECH 492 Senior Design Project II (3)**

Continuation of group projects from Senior Design Project I, including consideration of economic, risk and reliability factors, and development of preliminary designs, prototypes, tests and optimization, and project report and presentation. Lab 6 hrs., Prereq.: MECH 491.





**MECH 495 Special Topics in Mechanical Engineering (1-12)**

Covers a specific area related to mechanical engineering that is not normally covered in regular courses and/or for which there is sufficient student interest. May be used as a technical elective. Lec. 1 hr., or Lab 3 hrs. for each credit hour. Prereq.: Permission of instructor.

**MECH 496 Senior Project in Mechanical Engineering (1-12)**

Individual study by the student is conducted under supervision of a faculty member, on a project related to mechanical engineering, including presentation of project report. Lec. 1 hr. or Lab. 3 hrs. for each credit hour. Prereq.: Permission of instructor.

**MECH 487 Photovoltaic Cells and Solar Thermal Energy Systems (3)**

The course focuses on science and technology of solar energy harvesting. Major focus will be on photovoltaics cells (PV). This course will teach science and technology of PV cells. Various complimentary systems required to channel energy from PV cells to electrical appliances will be discussed. This course will also introduce key developments to make PV cells economical and more energy efficient. During this course, we will also highlight the impact of governmental policies and socio-economic conditions on the proliferation of solar energy harvesting. Prereq.: Permission of instructor

**MECH 488 Fuel Cell Fundamentals and Technologies (3)**

Fuel cells are introduced as a renewable energy resource. This course covers the concepts and fundamentals of fuel cells. Various types of fuel cells will be discussed to give in-depth understanding of practical fuel cell device. Experiments will be conducted as necessary. Prereq.: Permission of instructor



## School of Business and Public Administration

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### **BBA IN ACCOUNTING**

### **BA IN ECONOMICS**

### **BBA IN FINANCE**

#### **ACCT 201 Principles of Accounting I (3)**

First half of the elementary accounting year should be followed immediately by ACCT 202. Includes the principles of accrual-basis accounting, the accounting cycle, merchandising transactions, treatment of inventories, cash, internal control, receivables, plant assets, and other topics. Pre-req.: Completion of all prescribed developmental courses.

#### **ACCT 202 Principles of Accounting II (3)**

Second half of the elementary accounting year. ACCT 201 and 202 should be taken consecutively. Includes accounting for corporations, long-term debt, the Statement of Cash Flows, financial statement analysis, cost accounting, cost/volume/profit analysis, incremental analysis, operational and capital budgeting, and other topics. Pre-req.: ACCT 201

#### **ACCT 301 Intermediate Accounting (3)**

Reviews the basic accounting concepts and principles beginning with an overview of the balance sheet and income statement, financial statement preparation, working capital, and current assets. Advanced study of non-current assets and compound interest, annuities, and present value. Pre-req.: ACCT 202.

#### **ACCT 302 Intermediate Accounting II (3)**

Studies analytical processes, including statements from incomplete records, financial statement analysis, cash-flow reporting, and price-level changes, and accounting for pensions and leases. Pre-req.: ACCT 301.

#### **ACCT 312 Federal Income Tax I (3)**

Examines the Federal Income Tax laws as these apply to individuals; tax consequences of business decisions and accounting procedures. Pre-req.: ACCT 202.

#### **ACCT 325 Cost Accounting (3)**

Analyzes accounting for manufacturing costs, including job order costs, continuous process costs, and standard systems. Principles of budgeting for use in profit planning and control. Pre-req.: ACCT 202.

#### **ACCT 401 Auditing I (3)**

Surveys auditing standards and practices. Reviews internal control systems, procedures for audit verification of accounts and financial statements, preparation of auditing working papers, and audit practice cases. Pre-req.: ACCT 302.

#### **ACCT 402 Auditing II (3)**

Provides advanced study of contemporary auditing practice and theory, problems in auditing and financial statement presentation, audit sampling, and auditing computerized accounting systems. Pre-req.: ACCT 401.

#### **ACCT 404 Advanced Accounting (3)**

Involves a study of the following areas: partnerships;; installment sales;; consignments; fiduciary accounting;; business combination;; actuarial methods; business consolidations; mergers; accounting for foreign currency transactions; equity and cost methods of subsidiary investments and reporting for segments of a business enterprise. Pre-req.: ACCT 302.

#### **ACCT 405 Accounting Theory (3)**

Discusses contemporary theory, principles, practices, and controversies in financial accounting; specific areas include income reporting, price level changes, cash flows, inventories, depreciation, accounting for income tax expenses, and equities. Pre-req.: ACCT 302.

#### **ACCT 406 Governmental and Fund Accounting (3)**

Explores fund accounting for governmental and non-profit entities including appropriations, encumbrances, and fund transfers. Also examines the planning and budgeting cycle, agency accounting, municipal budgeting, and accounting. Pre-req.: ACCT 301

#### **ACCT 407 Accounting Information Systems (3)**

Examines modern accounting systems with emphasis on information technology. Includes basic concepts and standards, accounting equipment and procedures, sales and cash collection, accounts receivable, inventories, and payrolls. Pre-req.: ACCT 302.

#### **ACCT 412 Federal Income Tax Accounting II (3)**

Continues 2201-312, including income taxes applicable to partnerships and corporations, foreign taxpayers, estate taxes, gift taxes, and procedures of the Internal Revenue Service. Pre-req.: ACCT 312.

#### **ACCT 426 Managerial Accounting (3)**

Examines how management uses accounting data in planning and controlling business activities of the firm. Discusses the nature, preparation, analysis, and interpretation of accounting reports. Also explores cost accounting, capital budgeting, and internal controls and how these are used in the management decision process. Pre-req.: ACCT 302 and ACCT 325.

#### **BSEF 214 Personal Finance (3)**

Introduces the financial concerns of the household, including the concepts of budgeting, credit management, and net worth. Also examines insurance issues, individual taxation, home acquisition, investment analysis, and retirement and estate planning as well as the time value of money and the impact of the economic environment on financial and employment decisions.

#### **BSEF 220 Business Statistics (3)**

Analyzes graphical and tabular methods of representing data. Also explores measures of location and variation, elementary probability concepts, probability distributions, and index numbers and how these are used.

Pre-req.: College level Mathematics.

#### **BSEF 223 Quantitative Business Techniques (3)**

Examines sampling and statistical inference (estimation and hypothesis chi-square testing), simple regression and correlation analysis. Also introduces multiple regression analyses, remedial Actions, analyses of computer outputs, time series analyses, and linear programming and decision theory. Pre-req.: BSEF 220. BSEF 306 Price Theory is now being offered as Economics 313, Intermediate Microeconomics.

#### **BSEF 307 Money and Banking (3)**

Examines money, credit, and the impact of public policy in financial and consumer markets. Also explores policies, structures, and the functions of the Federal Reserve System as well as the influence of monetary controls on the economy and the business firm. Pre-req.: ECON 202.

BSEF 308 Financial and Fiscal Policy is now being offered as ECON 311, Intermediate Macroeconomics.

#### **BSEF 314 Business Finance (3)**

Introduces the concepts used in business financial decisions. Concepts covered include the analysis of financial statements and cash flows, the time value of money, and the capital budgeting



decision. The student is introduced to the money and capital markets and the valuation of securities traded in these markets in addition to working capital management and interest rate computations. Pre-req.: ECON 202

**BSEF 317 Public Finance (3)**

Studies the allocation and distribution aspects of government budget policy. Also discusses and examines government expenditures, taxation, and debt management. Pre-req.: ECON 202. (This course is equivalent to ECON 317.)

**BSEF 411 Financial Management I (3)**

Examines in-depth the concepts of financial planning and forecasting, risk and rates of return, and interest rates relevant to the financial environment. Introduces the cost of capital, capital structure and leverage, hybrid financing techniques, derivatives, and multinational considerations. Also addresses the concept of advanced capital budgeting. Prerequisite: BSEF 314

**BSEF 412 Financial Management II (3)**

Examines the role of the financial manager in executive decision making. Discusses how to apply concepts studied in prerequisite accounting and finance courses. Uses case studies exclusively to apply various concepts, including financial analysis and forecasting, cost of capital, capital budgeting, equity management decisions, capital structure, hybrid financing, and enterprise valuation. Prerequisite: BSEF 411

**BSEF 414 Security Analysis (3)**

Analyzes the selection and management of investments, investment programs, sources of investment information, security price movements, risk, and industry characteristics. Prerequisite: BSEF 314

**BSEF 416 Financial Institution & Capital Markets (3)**

Examines the process of capital formation in a free enterprise economy. Also examines the role of commercial banks and financial intermediaries as sources of short-term and long-term financing, and the role of government regulatory agencies, emphasizing bank management issues such as bank lending, investments, and capital.

**ECON 201 Principles of Macroeconomics (3)**

Introduces supply and demand, income and employment theories. Analyzes the causes of inflation and unemployment, and the policy alternatives for affecting macroeconomic change. Discusses the institutional arrangements of a market economy.

**ECON 202 Principles of Microeconomics (3)**

Analyzes theories of consumer behavior, production costs, and decision making by individuals and firms. Examines price and output determination under different market conditions. Discusses factor markets and income distribution.

**ECON 305 Topics in Applied Economics (3)**

Applies the theoretical tools of the economics principles sequence to specific situations. Pre-req.: ECON 201 and 202.

**ECON 311 Intermediate Macroeconomics (3)**

Examines macroeconomic theory. Interprets the flow of expenditure and income and the impact of these concepts on national income and price levels. Also explores possible stabilization controls and the impact of fiscal policy on business financing. Prerequisite: ECON 201.

**ECON 313 Intermediate Microeconomics (3)**

Examines microeconomics theory, including the economics process in the free enterprise system. Also explores theories of price and output in different market structures, the prices of factors of production, and models of consumer behavior with an emphasis on theory as an aid in decision making. Pre-req.: ECON 202.

**ECON 317 Public Finance (3)**

Studies the allocation and distribution aspects of government budget policy. Also discusses and analyzes government expenditures, taxation, and debt management. Pre-req.: ECON 202. This is equivalent to BSEF 317.

**ECON 326 Labor Economics (3)**

Examines theoretical variables that determine the demand and supply of labor. Also focuses on labor practices, such as union organization, fair labor practices, and collective bargaining. Pre-req.: ECON 201, 202.

**ECON 355 Economic Development (3)**

Examines various competing theories of development and underdevelopment, as well as alternative strategies and policies to achieve more rapid sustained growth in the less developed countries. Pre-req.: ECON 201, 202.

**ECON 472 Introduction to Econometrics (3)**

Explores econometrics as applied to business and economics. Analyses fundamentals of linear, nonlinear regressions with one or multiple regressors, hypothesis tests, and confidence intervals in multiple regressions. Also examines the analysis of regression with panel data, regression with a Binary Dependent and instrumental variables, regression Analysis of Economic Time Series Data and, other topics in Time Series Regressions.

**ECON 499 Seminar (3)**

Detailed examination of a selected topic. Requires students to do significant research on the topic and to participate actively in seminar discussions. Original paper required. Pre-req.: ECON 306, ECON 308.

**BBA IN MANAGEMENT**

**BBA IN MARKETING**

**BBA IN MANAGEMENT INFORMATION SYSTEMS**

**MBA**

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**BGMT 104 Introduction to Business (3)**

Examines and analyzes the basic structure and practices of the business community; Emphasis on modern business functions in a dynamic environment, the nature and scope of business components, the cause of business problems, and factors that tend to influence behavior in business organizations.

**BGMT 208 Business Communications (3)**

Covers the essential principles involved in communicating in today's workplace. Students are expected to gain expertise in both written and oral communications. Course provides for a review of basic English principles as applied to management in all aspects of communications, including listening, interpersonal skills, verbal and nonverbal messages. Requirements include activities related to effective interviewing; successful business meetings; working in teams; and developing, organizing, and delivering presentations. Prerequisite: IGED 111

**BGMT 304 Introduction to Management (3)**

Examines the concepts and principles of management; evolution of management thought; principles and methods of planning, organizing, leading, and controlling; types of plans; leadership and decision making styles; approaches to the improvement of managerial and employee performance; systems-oriented



management; and the impact of computer technology on the management process. Pre-req.: BGMT 104.

**BGMT 305 Conceptual Foundations of Business (3)**

Examines the ideological and philosophical background of the private enterprise system that forms the basis for its values and outlook and determines its place in ever-changing society. Topics include the social responsibility of business, business-government relations, and business ethics. Pre-req.: BGMT 104.

**BGMT 306 Human Resources Management (Personal Management) (3)**

Examines the policies governing human resources management; human resources planning; strategies for acquiring and maintaining human resources; the personnel functions of recruitment, selection, testing, compensation, training development, and promotions and transfers. Also, personnel research programs and activities, the legal environment of human resources management, equal opportunity policies, job analysis, evaluation and classification, and reduction-in-force procedures. Pre-req.: BGMT 304 or equivalent.

**BGMT 307 Labor-Management Relations (3)**

Discusses the evolution of labor unions and collective bargaining, negotiation of collective bargaining agreements, agreement administration, settlement of labor disputes, and the legal environment of collective bargaining. Pre-req.: BGMT 304 or equivalent.

**BGMT 308 Entrepreneurship (3)**

Examines and analyzes the small business sector in the American economy; the processes of establishing and managing a small business enterprise; problems associated with small business planning, financing, and staffing; and survival and growth strategies for small businesses. Pre-req.: BGMT 304.

**BGMT 309 Introduction to E-Commerce: Business on the Internet (3)**

This course consists of five sections: Section 1-Introduction to Electronic Commerce; Section 2-Personal and business services online; Section 3-Buying online; Section 4-Doing business on the web; and Section 5-Developing an electronic commerce web site. In class exercises and work on the computer/internet are critical and integral parts of this course. Pre-req.: BGMT 104 and a computer applications course.

**BGMT 319 Business Ethics (3)**

Provides an overview of business ethics and decision-making codes of ethics, ethical conduct in different business situations, ethical issues surrounding conflict of interest in business relations, and factors influencing ethical conduct.

**BGMT 406 Decision Theory (3)**

Discusses theories, methods, and quantitative techniques of management analysis and decision-making in business, industrial, and governmental organizations as applied to specific management functions and situations. Topics include the establishment and management of decision support systems. Pre-req.: BGMT 223.

**BGMT 409 Organization Theory and Behavior (3)**

Studies organization theories, concepts, and structures; individual and group behavior; the communication process; leadership; conflict management; motivation; problems of reorganization; and management of change. Pre-req.: BGMT 304

**BGMT 411 Leadership (3)**

Basic theories, principles, and strategies of creative and effective leadership in multiple business environments and situations. Pre-req.: Senior Standing.

**BGMT 414 Production and Operations Management(3)**

Covers the establishment of production systems, methods of production planning and scheduling, automated production systems, and approaches to production control and quality assurance. Pre-req.: BGMT 223.

**BGMT 416 Compensation Management (3)**

Explores career development programs, management of training and development programs, human resources requirements planning, labor cost trends, compensation systems in the private and public sectors, pay structures, methods of job/position classification, job evaluation, legal aspects of wage and salary administration, management of benefit programs, and research methods in career and compensation management. Pre-req.: BGMT 304.

**BGMT 417 Management of External Communication Systems (3)**

Covers the fundamental principles and practical application of external organizational communication theory with emphasis on the design and use of various means of message exchange between management and external groups/organizations. Topics include the public relations process, the nature of persuasive communication, corporate image building, external communication strategy, and ethical considerations in external communication. Pre-req.: BGMT 304

**BGMT 419 Business Policy and Strategy (3)**

Applies the skills acquired in prior courses through an integrated approach to the development of business policy and strategy. Cases and exercises in establishing, presenting, defending, and publishing business policy and strategy. Pre-req.: Limited to business students in final semester before graduation.

**BGMT 495 Independent Study (3)**

Studies a particular problem or topic in business management under the direction of a faculty member. Maximum of three credit hours for each student degree program. Pre-req.: Senior standing and GPA of 2.8 or higher.

**BGMT 510 Sustainability Entrepreneurship (3)**

This course will address various aspects of Sustainability Entrepreneurship and the opportunities available to start-ups and large businesses to establish ventures in the global economy.

**BGMT 529 Global Strategic Management (3)**

This course involves the application of concepts acquired in prior courses in the development and analysis of global business policies and strategies. Cases and exercises are used for establishing, presenting and defending the choice from strategic options for business stability and growth. Pre-req.: Limited to students in the MBA Program in the final semester for graduation.

**BLAW 214 Legal Environment of Business (3)**

Introduces the American legal institutions; the judicial, executive, and legislative branches of government; judicial reasoning; administrative procedures; law; government regulation of business; contracts and torts: studies of the basic elements of determining contract or tort liability; the formation, operation, and discharge of contracts in a business context. Pre-req.: IGED 111

**BLAW 255 Labor Relations Law (3)**

Examines the National Labor Relations Act, as amended, which governs labor-management relations in the private sector. Emphasis is on the structure, role, and function of the National Labor Relations Board and its procedures and operations in the context of bargaining rights and contract negotiation and administration, as well as the role of the courts.



**BLAW 318 Commercial Law (3)**

Studies contracts, agency, negotiable instruments and sales; the legal variable encountered in business and commercial transactions; application to practical problems. Pre-req.: BLPC 214.

**BLAW 415 Labor Law (3)**

Studies the regulation of employment practices and the law of industrial relations. Survey of the history of workers' associations; the doctrine of criminal conspiracy; the injunction as an anti-labor weapon; modern applications of the antitrust laws to limit union power; legal limitations on the right to strike; picketing as a coercive force and picketing as an example of free speech; secondary boycotts; the attempt to insure union democracy; the Fair Labor Standards Act and the Civil Rights Act. Pre-req.: BLPC 214.

**BLAW 503 Business Law and Ethics (3)**

Focuses on lawful and ethical business decision making. Examines temporary legal and ethical issues in reporting, corporate governance, marketing, and management in both national and international organizations as well as the ethical philosophies and social issues underlying the current business environment

**MGIS 120 Computer Applications in Business (3)**

Demonstrates techniques for using Office Suite applications in a business environment. Particular emphasis on integrating applications within the Suite; fundamental Internet concepts; World Wide Web browsing, searching, publishing, and advanced Internet productivity tools. Includes laboratory. Pre-req.: None

**MGIS 220 Programming for Business (3)**

Introduces fundamental concepts of business application development. Structured logic will be used to define requirements, write specifications, design, develop, test and integrate applications. Emphasis will be placed on problem solving techniques using variables, conditional statements, loops, procedures, and debugging techniques. Prerequisite: MGIS 120

**MGIS 225 Problem Solving with Visual Basic (3)**

Focuses on techniques to design and develop advanced business applications from concepts of event-driven programming with graphical user interface. Examines how to apply principles of loops, decisions, strings, arrays, and files in business assignments. Develops business applications with objects and understand the basic concepts of object-oriented programming. Prerequisite: MGIS 220

**MGIS 330 Internet Programming (3)**

Examines website programming using HTML, scripts, and web authoring tools; objects, methods, functions, events, and interactive forms. Analyzes use of databases, spreadsheets, and graphic objects for business applications. Pre-req.: MGIS 220 or equivalent.

**MGIS 390 Co-op in Computer Information Systems (3)**

Provides on-the-job training as a programmer or a systems analyst. Demonstrates skills learned in the classroom. Requires a term paper specifying the work experience. Pre-req.: MGIS 120.

**MGIS 401 Business Systems Analysis and Design (3)**

Examines principles of data systems analysis with a focus on systems evaluation, planning, and implementation. Pre-req.: MGIS 120 and 220.

**MGIS 402 Management Information Systems (3)**

Examines advanced problems involving management information systems with an emphasis on management information systems planning, information processing, techniques of documentation, and written procedure. Lec. 3 hrs., Pre-req.: Senior Standing in Business.

**MGIS 404 Advanced Applications of Micro-computers (3)**

Examines the visual and object-oriented programming paradigms as these are used to develop business and other applications on microcomputer platforms. Lecture: 3 hrs. Pre-req.: MGIS 220.

**MGIS 405 Introduction to Telecommunications (3)**

Reviews terms and concepts applied to data communications and teleprocessing, network structures, and knowledge of hardware and software systems used in teleprocessing. Pre-req.: Senior standing in Computer Information Systems.

**MGIS 409 Computer Analysis for Management (3)**

Surveys quantitative techniques used for managerial decision making. Reviews mathematical formulation of deterministic models and the use of standard computer software packages to solve the models and interpret the results. Pre-req.: MGIS 223 and MGIS 120.

**MGIS 411 Decision Support Systems (3)**

Examines the role of information systems technology in support of decision making in organizations. Focuses on expert systems, groupware and executive information systems. Prereq.: Knowledge of spreadsheets and conceptual understanding of databases. Senior Standing in CIS.

**MGIS 413 Managerial Modeling with Computers (3)**

Explores business applications of operations research techniques. Development of and solutions to mathematical stochastic models. Analysis and interpretation of results. Decision theory and applications. Includes laboratory. Lec. 3 hrs., Pre-req.: MGIS 409.

**MGIS 419 The Law and the Computer (3)**

Studies legal aspects of management decisions concerning systems design, proprietary rights, computer abuse and error, privacy considerations, acquisition of computers and data. Also explores how law applies to the computer environment. Pre-req.: BLAW 214 and MGIS 120.

**MGIS 420 Database Programming (3)**

Examines the fundamentals of database design, file organization, and access methods, as well as the relational, network, and hierarchical views of databases, including the appropriate query languages and implementations, client-server planning, testing, and installation. Includes methods used to parse and optimize queries, reliability, security and integrity of databases. Requires students to conduct several programming projects. Pre-req.: MGIS 225

**MGIS 459 Advanced Information Technology Applications (3)**

Provides hands-on exploration of the various applications of information technology in business, including applications in accounting, marketing, and other select areas. Pre-req.: Knowledge of basic business application software, such as word processing, spreadsheet, and databases. Prerequisite: Senior Standing in MGIS.

**MGIS 490 Practicum in Computer and Information Science (3)**

Involves parallel study and work assignments under the direction of a faculty member.

**MGIS 495 Independent Study (3)**

Involves an individualized course designed to allow the student to do research in the computer and information systems area under the supervision of a faculty member. Pre-req.: MGIS 402.

**MKTG 304 Introduction to Marketing Management (3)**

Provides a managerial approach to the study of marketing, including target market selection, product, price, promotion and distribution strategies. Emphasizes consumer behavior and decision. Nonprofit and international marketing issues will also be included. Pre-req.: BGMT 104.



**MKTG 305 Consumer Behavior (3)**

Examines consumer and organizational buying behavior, incorporating concepts and findings from behavioral sciences. Includes the study of an integrated model of consumer behavior and the factors which influence the decision process. Pre-req.: MKTG 304

**MKTG 306 Promotion Management (3)**

Studies theories and processes relating to marketing communications with a focus on planning and managing the communication mix: personal selling, advertising, sales promotion, and publicity. Views promotion as a marketing tool coordinated with other elements of the marketing mix. Pre-req.: MKTG 304.

**MKTG 307 Principles of Retailing (3)**

Examines planning and managing retailing strategy, including evaluation of trading area, selection of retail store site, merchandising, inventory management, store layout, merchandise assortment, pricing, promotion, and customer service. Pre-req.: MKTG 304.

**MKTG 308 International Marketing (3)**

Examines theories, concepts, and practices relating to international marketing management, with a focus on the cultural, social, political and economic environments. Topics include strategic decisions about product, price, promotion, and distribution as well as emerging issues and institutions in global marketing. Pre-req.: MKTG 304.

**MKTG 310 Direct Marketing Management (3)**

Examines the direct consumer/user marketing approach, including a review of the media of direct marketing, such as mailing lists, magazines, newspapers, broadcasts, and telephone. Explores techniques of creating direct mail packages, catalogs, production, and research as related to direct marketing. Pre-req.: MKTG 304.

**MKTG 312 Marketing of Services (3)**

Studies and discusses the key elements needed to market services such as distinctive aspects of services marketing; developing a framework for services marketing; positioning the service organization in the market place; managing the customer mix; managing demand; managing the service marketing system; and planning, organizing, and implementing the services marketing effort. Pre-req.: MKTG 304.

**MKTG 404 Marketing Research (3)**

Studies the fundamentals of scientific investigation used to solve marketing problems. Examines methodologies and processes used in marketing research including problem identification, research design, sources of information and methods of information gathering, sample design, organization and control of field survey, tabulation, analysis, interpretation of data, and the presentation of a research report. Pre-req.: MKTG 304.

**MKTG 405 Marketing Strategy (3)**

Presents a capstone course for marketing majors designed to test the student's analytical skills in developing sound marketing policies and strategies. Includes project investigations of contemporary issues in the field of marketing. Pre-req.: MKTG 404

**MKTG 408 Advertising Management (3)**

Studies advertising as a communication tool and its role in the marketing mix. Explores advertising campaign and strategy planning, including: objectives, budgeting, media planning, and creative strategy. Explores advertising agencies and their role. Also examines socioeconomic implications [of advertising?] Pre-req.: MKTG 304.

**MKTG 495 Independent Study (3)**

Focuses on a program designed to provide select students an opportunity to pursue an area of interest in marketing not normally included in the prescribed curriculum. Pre-req.: Permission by course instructor.

**ACCT 504 Accounting for the Management Function (3)**

Provides an understanding of the reporting, control, and analytical context in which accounting functions including: pre-planning and analyzing financial statements, cost/volume/profit relationships, and capital budgeting. Pre-req.: Graduate business standing.

**ACCT 505 Accounting Reporting, Theory and Practice (3)**

Studies the theory, logic, and actual practice of corporate financial reporting; develops an understanding of the strengths and weaknesses of financial reporting from the manager's point of view. Structured in an issue-oriented format with current readings and case studies. Pre-req.: ACCT 504

**ACCT 506 Cost Analysis and Controls (3)**

Concentrates on the major areas of interest in management accounting and control including: budgetary planning, capital expenditure analysis, control through standards, variable costing, cost/volume/profit relationships, and responsibility accounting. Structured in an issue-oriented format with readings and case studies in cost analysis and control. Pre-req.: ACCT 504.

**ACCT 508 Government and Not-for-Profit Organization Accounting(3)**

Covers operation of government entities and educational, medical, social, and other not-for-profit organization. Concentrates on application of fund theory of accounting and budgeting process and achieving objectives through financial planning and control. Pre-req.: ACCT 504.

**BGMT 506 Management Theory and Practice (3)**

Studies concepts of management, application of management principles, comparative management practices in different types of organizations, and the impact of modern computer technology. Pre-req.: Graduate business standing.

**BGMT 508 Organizational Development and Behavior (3)**

Explores traditional and modern theories of organization, behavioral consequences of alternative organization designs, and internal organization elements, such as goals, structures, roles, power, authority, communications, and control. Pre-req.: Graduate standing in business or public management.

**BGMT 509 The System Approach and Project Management (3)**

Examines management and the systems concept, including: matrix management, project planning, organization, staffing, direction, and control. Also explores project management authority; project budgeting and cost analysis as well as project implementation and evaluation. Pre-req.: Graduate Standing.

**BGMT 511 Leadership in Organizations (3)**

An advanced seminar designed to explore the foundations, principles and strategies of leadership by examining the interrelation between leadership and managerial effectiveness. Pre-req.: Graduate Standing.

**BGMT 514 Production Management (3)**

Examines integration of management principles and concepts, with emphasis on the production and operational functions of manufacturing, service, and governmental organizations. Also explores production control, quality control, materials handling, and value analysis. Pre-req.: BGMT 526.

**BGMT 515 Minority Business Enterprises (3)**

Examines the status of minority-owned business in today's economy, including the processes need to plan and manage



emerging companies, the opportunities and challenges facing minority business, and problem-solving strategies. Pre-req.: Graduate Standing.

**BGMT 516 International Business Management (3)**

Examines the dimensions of international business including: types of international business operations; organization of multinational firm; policy formulation; personnel selection, and control methods in overseas subsidiaries. Also explores the impact of the foreign and domestic investment climates on decision-making in multinational firms, and the impact of foreign investment on domestic investment and employment. Pre-req.: BGMT 506 or BGMT 508.

**BGMT 518 Management of Human Resources (3)**

Studies the basic personnel functions required to build and work with an effective and satisfied work force. Focuses on tasks needed to procure, develop, maintain, and deploy a work force. Explores topics such as specifying job and manpower requirements; attracting, screening, interviewing, and testing people; employee training and development; merit evaluation; compensation and employee service programs; and collective bargaining. Pre-req.: BGMT 506 or BGMT 508.

**BGMT 519 Policy Formulation (3)**

Provides students with the opportunity to demonstrate knowledge and competence developed in other courses. Simulates actual business situations through cases and team competition. Explores major issues relating to business operations, including social responsibilities and business ethics to determine how to apply appropriate business policies and plans. Pre-req.: Course is taken by MBA students in the final term before graduation.

**BSEF 504 Financial Management (3)**

Reviews actual cases from the world of business and finance that expose the student to problems typically encountered in financial management. Students work out cases in short-term asset management, financial analysis and control, planning, capital, budgeting, and the cost of capital and growth through consolidation and merger. Pre-req.: Graduate business standing.

**BSEF 505 Managerial Economics (3)**

Covers the fundamental analytical tools of economics and the application to decision-making in the firm, including: theory of demand, production, and distribution, market structure and performance, and problems facing management in use of resources and pricing. Pre-req.: Graduate business standing.

**BSEF 506 Advanced Finance and Fiscal Policy (3)**

Examines what determines national income aggregate demand and the impact on business decisions. Pre-req.: Graduate Standing.

**BSEF 509 Advanced Business Forecasting (3)**

Explores business forecasting techniques used in managerial planning, and evaluates short-term and long-term forecasting methods employed to indicate trends in national economic activity and in the economic activity of various industries. Pre-req.: BGMT 504.

**BSEF 514 Investment Management (3)**

Studies methods used to evaluate investment risk and estimation of return and techniques of security analysis. Also analyzes investment in common stocks, bonds, real estate, mortgages, municipal bonds, commodities, options, and investment companies. Pre-req.: BSEF 504.

**BSEF 515 Money and Capital Markets (3)**

Studies the nature and functions of money and capital markets. Topics include sources and uses of funds, stock prices, interest rates,

financial intermediaries, markets for U.S. government securities, corporate equities, and municipal bonds. Pre-req.: BSEF 504.

**BSEF 517 International Economics and Finance (3)**

Examines international monetary and financial theories, as well as institutions and practices of the international economy. Topics include balance of payments problems, international flow of funds, exchange controls, and conflicts between international and domestic objectives. Pre-req.: BSEF 504.

**BSEF 526 Quantitative Business Methods (3)**

Surveys quantitative techniques used in solving management problems, including potential and limitations of analytical methods and the application to modern problems. Topics include probabilistic and deterministic models, linear programming, and decision theory. PERT and CPM, and Markov analysis. Pre-req.: Graduate business standing.

**MGIS 501 Business Computer Systems (3)**

Provides an overview of software programs used in computer and business applications. Provides hands-on experience with software packages. Focuses on concepts, features, and business applications. Pre-req.: Graduate Standing.

**MGIS 505 Analysis and Design of Information Systems (3)**

Reviews of the principles of computer systems analysis and design and the application of these principles. Includes the types of documentation and these are prepared and used within the system. Students will analyze case studies and prepare the necessary documentation and design that results from their analysis. Pre-req.: Graduate Standing.

**MGIS 506 Computer Analysis for Management (3)**

Surveys quantitative techniques used for managerial decision making, mathematical formulation of deterministic models, and how to use standard computer software packages to solve the models and to interpret the results. Includes laboratory. Pre-req.: Graduate Standing.

**MGIS 507 Management Information Systems (3)**

Discusses management information systems as developed in a computer environment, including the impact of these systems on managerial decision-making. Pre-req.: Graduate Standing.

**MGIS 508 Managerial Modeling with Computers (3)**

Discusses business applications of operations research techniques, how to develop solutions to mathematical Stochastic models, and how to analyze and interpret the results. Pre-req.: Graduate Standing.

**MGIS 510 Teleprocessing and Networks (3)**

Introduces students to modern telecommunications and networking technologies. Covers concepts in communications, such as components of data communication, data transmission, Open System Interconnection (OSI) model, TCP/IP model, data link layer, network layer, local area networks, wide area networks, and network design and management. Introduces students to technical aspects of telecommunications and networking designed to enhance technology management skills. Pre-req.: Graduate Standing.

**MGIS 515 Electronic Commerce (3)**

Provides overview of electronic commerce applications in the retail, government, and health sectors. Course will illustrate consumer-business and intra-organizational electronic commerce and highlight and discuss electronic commerce applications from both an operational and strategic perspective. Pre-req.: Graduate Standing.



**LBST 508 Quantitative Methods for Public Administration (3)**

Covers inferential statistics, simple and multiple regression, time series, index numbers, and graphic and tabular presentation. Pre-req.: Undergraduate course in Descriptive Statistics.

**LBST 523 Collective Bargaining (3)**

Studies collective bargaining with emphasis on structure, process, and content of negotiations. Also examines the legal and substantive issues and trends in public and private sectors. Pre-req.: Graduate Standing.

**LBST 568 Arbitration and Dispute Settlement (3)**

Examines conflict resolution in private and public sector labor relations. Explores the basis, steps in the process, use and misuse of arbitration, mediation, and strikes. Pre-req.: Graduate standing.

**LBST 569 Pensions and Fringe Benefits (3)**

Explores the rules imposed by the courts and statutes on pension plan operation. Examines actuarial considerations, functions, vesting, public purpose funds, and role of insurance companies. Also covers other fringes. Pre-req.: Graduate Standing

**LBST 573 Labor Relations and Federal Human Resources Management (3)**

Studies the Federal budget process, specifically, its implications for wage determination and bargaining. Students study statutes that set wages for white and blue collar workers and review the Pay Council and pay comparability surveys. Pre-req.: Graduate Standing

**LBST 576 Quality of Work Life and Productivity (3)**

Explores personnel policies and practices including communications, involvement, development and training that enhance the quality of working life, commitment, advancement and productivity of the employee. Course discussions will include union and non-union settings, relevant employment and labor relations law, and court decisions. Pre-req.: Graduate Standing

**LBST 587 Labor Relations in State and Local Government (3)**

Studies statutory and administrative bargaining, unions, the merit system, the right to strike, and union security. Also examines state agencies that enforce new laws. Pre-req.: Graduate standing.

**MKTG 503 Business Research Methods (3)**

Examines principles and techniques of research methodology, including methods used to identify problems and standard statistical designs. Emphasizes organization and presentation of research data and the evaluation and application of research. Pre-req.: Graduate business standing.

**MKTG 504 Marketing Management (3)**

Explores the nature and scope of marketing management, market structure, consumer behavior, and marketing channels. Also examines the various approaches to the analyses of demand, and cost and profit in addition to functional problems, policies, selling, advertising, and pricing. Pre-req.: Graduate business standing.

**MKTG 507 Marketing Strategy (3)**

Uses case studies to incorporate concepts and techniques covered in previous marketing courses. Analyzes the overall problems of managing the functions of business. Pre-req.: MKTG 504.

**MKTG 508 Buyer Behavior (3)**

Explores the concepts and the practical implications of the various processes and facets of consumer motivation and behavior. Pre-req.: MKTG 504.

**MKTG 509 Marketing Seminar (Marketing Functions) (3)**

Studies in-depth a select, functional area in marketing, with emphasis on prevailing marketing practices. Rotates topics such as promotion management, marketing channels, and physical

distribution management; however, only one of the three are covered in a semester. Pre-req.: MKTG 504.

**MKTG 514 International Marketing Management (3)**

Studies the systematic treatment of marketing on a global scale. Explores areas of international marketing and global marketing strategies while examining each element of the marketing mix. Pre-req.: MKTG 504.

**MBAT 595 Independent Study (3)**

Under the direction of a faculty member, examines a specific issue related to business administration

**MBAT 596 Thesis Seminar (3-6)**

Examines the processes involved in presenting a research project, study, or investigation.

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**PROCUREMENT AND PUBLIC CONTRACTING**

**CERTIFICATE IN PROCUREMENT AND PUBLIC CONTRACTING**

**PAPC 304 Purchasing and Materials Management (3)**

Introduces the purchasing function as an element of business operations, purchasing system organization; coordination with other functions; concepts of materials management; economy affected by prudent buying. Pre-req.: BLPC 304, 2131

**PAPC 305 The Federal Acquisition Systems (3)**

Examines the conception and planning of a program; the budget process in programming, planning and justifying the funding for programs; establishment of individual requirements and earmarking them for procurement; preparation of work statements and specifications; initiation of the procurement request; socioeconomic programs and their objectives. Prereq.: BLPC 304.

**PAPC 306 Formation of Government Contracts (3)**

Examines the procurement process, with special emphasis on methods of procurement and types of contracts and grants used by the federal government.

**PAPC 404 Contract Administration (3)**

Explores the government's system of contract management; structure and use of contract administration functions; coordination with procurement activities and audit agencies. Pre-req.: BLPC 306.

**PAPC 406 Cost and Price Analysis (3)**

Studies techniques for determining proper price for purchased items; cost elements, estimating, and the government approach to formulating methods of pricing research, development, hardware, and services. Pre-req.: BLPC 404.

**PAPC 407 Contract Negotiation (3)**

Explores the negotiation process; the limitations imposed by law and regulation; the evaluation process in competitive negotiation; strategy and tactics employed in noncompetitive negotiation, and the preparation for and conducting negotiations. Pre-req.: BLPC 306.

**PAPC 408 Procurement Law (3)**

Investigates the areas of public law and regulations that affect the rights of parties who enter into contractual relationships with federal government or state agencies; contract formation and award protests; standards of conduct; government liability for authorized and unauthorized actions; remedies available under federal contract clauses, laws, and regulations. Pre-req.: BLPC 304 or BLPC 214.

**PAPC 414 Administrative Law (3)**

Examines governmental methods of establishing policies and procedures; implementation of laws by the issuance of directives and regulations; public input; limitations from inherent nature of agency functions; and effect of administrative acts on the economic and social structure. Pre-req.: BLPC 214.

**PAPC 495 Independent Study (3)**





Involves an intensive study of an area in procurement, public contracting, or business law under direction of a faculty member.

**PMGT 503 Introduction to Public and Nonprofit Administration I (3)**

Serves as the introductory course to government and non-profit organization management practices and issues. Addresses the general effectiveness of major agencies including their relationships with legislative bodies, clientele, other governmental units and public and non-profit bodies. Establishes the broad parameters of what constitutes public and non-profit managers' roles, responsibilities, major activities, and influencing factors. Examines theories and develops analytical techniques used to identify and resolve issues that commonly occur in public management and non-profit administration.

**PMGT 504 Advanced Public Human Resources Management (3)**

Covers management of human resources in public agencies, changing conditions affecting employment policies, selection procedures, and promotions. Examines the issues relating to testing and selection, productivity, incentives, union-management relations, supervisory relationships, political participation, minority employment, upward mobility, affirmative action, employee development, and training. Pre-req.: Graduate Standing.

**PMGT 506 Government and Business Relations (3)**

Examines policy issues of government regulation of business. Explores the public concern for environmental-related issues, the subsequent development of government regulations, and controls and their impact upon private enterprise. Also explores the impact of regulation and deregulation on business activity. Pre-req.: Graduate standing in business or public management.

**PMGT 507 Intergovernmental Relations (3)**

Studies the dynamics of relations among governmental units, including the movement towards regionalization and councils of government. Explores the impact of Federal government policies and programs on state and local resources, issues, and problems. Pre-req.: PMGT 514.

**PMGT 509 Public Management Research (3)**

Studies research methods for public management, including the development of research design, problem definition, and evaluation and reporting on research findings. Students will work individually or jointly on public management-oriented research projects. Pre-req.: PMGT 514.

**PMGT 512 Political Economy of Public Administration (3)**

Examines the interrelationship of political and economic factors that influence both public, political, and economic outcomes. Key means of analysis will include application of micro- and macro-economic theories to better understand political and administrative decision-making processes. Topics will include the theory of collective action, comparative economic performance, political business cycles, and theories of economic voting.

**PMGT 514 Management of Government Organizations (3)**

Studies government organizations, management practices and problems, and the management of relationships between major agencies, the legislature, and clientele. Reviews the process of planning, controlling, and decision-making in governmental organizations. Pre-req.: Graduate Standing.

**PMGT 519 Public Policy Development and Implementation (3)**

Examines the dynamics of public policy development and implementation, the process of translation of issues into public policy through legislative enactment and executive implementation, and the analysis and evaluation of public policies. Pre-req.: Graduate standing in Public Administration.

**PMGT 525 Management of Metropolitan Governments (3)**

Covers management issues and practices as these apply to urban and metropolitan governments, including program management and fiscal issues. Pre-req.: Graduate standing.

**PMGT 529 Public Finance and the Budgetary Process (3)**

Analyzes public fiscal policies, the interaction of such policies and their impact on government programs, operations and services, and the interrelationship between governmental fiscal policies and the budgetary process. Pre-req.: PMGT 514.

**PMGT 536 Thesis Seminar (3-6)**

Studies the processes involved in preparing a research project, case study, or investigation. Pre-req.: PMGT 509.

**PMGT 538 Independent Study in Public Administration (3)**

Involves an intensive study of a particular issue in an area relating to governmental administration under the direction of a faculty member. Requires the prior approval of the Department Chair.

**PMGT 539 Public Administration Capstone (3)**

Intended only for students who are completing the Masters of Public Administration (MPA). This course is now required since the elimination of the comprehensive examinations for MPA students. The Capstone Project offers each student the opportunity to demonstrate mastery of the theory and practice of public administration by applying the knowledge and skills gained in the MPA program to a project of the student's choice with the approval of the instructor. This involves completing a project report reflecting the cumulative knowledge gained from students' educational experiences in their program of studies. Pre-req.: Public Administration Research Methods or its equivalent, the completion of 30 hours in the MPA program, and [department chair?] permission.

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**Nonprofit Management**

**PMGT 587 Labor Relations in State and Local Government (3)**

Studies statutory and administrative bargaining, unions, and the merit system, the right to strike, and union security. Also examines state agencies that enforce new laws. Pre-req.: Graduate standing.

**NPMG 530 Introduction to the Nonprofit Sector (3)**

Provides an overview of the historical development, role, and importance of philanthropy, nonprofits, and civil society. Also addresses the unique characteristics of size, impact, types, organization structures, and the mission-driven orientation that make-up the nonprofit sector. This is (the?)prerequisite course.

**NPMG 532 Governance and Executive Leadership (3)**

Focuses on how important the Executive Director and effective Board development and management are to successfully govern nonprofit organizations. Students will learn about the roles of the Board and Executive Director in accomplishing the mission and vision of the organization; the legal rights, responsibilities, and obligations of Directors and Board members; various models of Board governance, and best practices in Board development and management; and the challenges of executive leadership in a nonprofit organization.

**NPMG 534 Strategic Revenue Development (3)**

Provides an overview of the components and implementation of diversified revenue sources, emphasizing how, in addition to traditional fundraising methods, how critically important it is to be able to practice a variety of revenue generating methods. Includes methods on how to create and maintain earned income streams, social entrepreneurship, and other cutting edge trends. Provides



students with opportunities to apply practical methods to generate revenue.

**NPMG 539 Public Policy, Advocacy, and Social Change (3)**

Focuses on the unique role nonprofit organizations play in affecting social change and influencing public policy. Students will gain an understanding of how nonprofits shape public policy through strategies such as community organizing, public education, policy research, and lobbying and litigation; the role of Board members, staff, and volunteers as agents of and for social change; and examine case studies of effective and ineffective nonprofit social change initiative.

**NPMG 535 Volunteer Management as a Nonprofit Human (3)**

This course provides a comprehensive examination of the strategic value of volunteers to the mission-driven operation of a nonprofit organization. Leading and managing the process of assessment, design, implementation, recruitment, training, maintaining and sustaining a viable volunteer program.

**Procurement and Public Contracting Concentration courses:**

**PAPC 540 Contract Administration (3)**

Examines the government's system of contract management including the structure and use of contract administration functions, coordination between the contracting office, the technical people, the users and the audit agencies. Also explores the duties and responsibilities of the contracting personnel based on the federal acquisition regulations and the type of contract. Students will learn to use various computer programs to aid in contract administration, such as MS Project Contract Administration.

**PAPC 542 Contract Source Selection, Pricing and Negotiation (3)**

Examines how to prepare requirements, bidders lists, and other methods to assure competition. Emphasizes quantitative aspects of conducting cost and price analysis to prepare for negotiation. Discusses cost types and behavior of different costs as well as concepts involving learning curves and total cost of ownership. Using various purchasing scenarios, students will simulate negotiation incidents using strategies, tactics, and techniques critical to a successful contract negotiation.

**PAPC 544 Government Contract Performance (3)**

Emphasizes the use of performance-based contracting, beginning with the contract requirements, the statement of work, the proposal, the evaluation of past performance, risk evaluation, mitigation and performance.

**PAPC 546 Green Contracting in the Government (3)**

Emphasizes the use of quantitative analysis to justify green procurement, and specifically the importance of green procurement, including the need to include environmental consideration as a normal part of the purchasing process. Examines commonly used tools and standards in the green market place, pollution prevention, and multiple environmental aspects of a life-cycle cost. Also explores how to compare environmental impacts when selecting products or services and collect accurate and meaningful information about the environmental performance of a procurement.

**PAPC 548 Legal and Ethical Aspects of Government Contracting (3)**

Explores the Federal Acquisition Regulations and the Defense Acquisition Regulations, specifically how these aspects are to be

applied, implemented, and interpreted. Also examines the impact of executive orders and other administrative actions on government contracting as well as court decisions and the operations of the, Board of Contract Appeals and Comptroller General. The ethics rules are unique to procurement.



## Faculty Listing

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### College of Agriculture Urban Sustainability and Environmental Science

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#### Architecture and Community Planning

Genell Anderson; B.Arch., Tulane University; M'Arch, Tulane University School of Architecture; Associate Professor  
Ralph Belton, B. Arch., Howard University; M'Arch, Howard University School of Architecture and Planning; Associate Professor  
Kathy Dixon, B.Arch., Howard University; Masters Urban Planning, University of California; Associate Professor  
Clarence Pearson, B.Arch., Hampton University; Masters Urban Design; The Catholic University of America; Professor

#### Environmental Science and Urban Sustainability

Mohamed A. Elhelu; B.A., University of Montana; M.S., Howard University; Ph.D, Howard University; Professor  
Tolessa Deksis, B.S. Alemaya University; M.S. Ghent University; Ph.D., Ghent University; Research Associate  
Thomas Kakovitch, B.S., University of Strasbourg; B.S., University of Maryland; M.S., University of Maryland; Associate Professor  
Sabine O'Hara, B.S. University of Gottingen; M.S., University of Gottingen; Ph.D., University of Gottingen; Professor

#### Health Education

Wilmer Johnson, B.S., Michigan State University; M.A., Howard University; Ph.D., The Catholic University of America; Professor  
John Slack, B.Ed., University of Buffalo; M.Ed., State University of New York at Buffalo; Ed. D., The George Washington University; Professor  
Bessie Stockard, B.S., Tuskegee Institute; M.A., The American University; M.A., University of the District of Columbia; Associate Professor

#### Nursing

Elmira Asongwed, R.N., B.S., Tuskegee Institute; M.S., University of Maryland; Associate Professor  
Pier A. Broadnax, R.N., B.S., Winston-Salem State University; M.S. Hampton University; Ph.D; George Mason University; Associate Professor  
Anne Marie Jean-Baptiste; R.N., B.S., University of the District of Columbia; M.S., University of Phoenix; Assistant Professor  
Connie M. Webster, R.N., Diploma, Lincoln Hospital School of Nursing; B.S.N., Howard University; M.S.N. Howard University; Ph.D., The Catholic University of America; Professor

#### Nutrition and Dietetics

Prema Ganganna, B.A., University of Mysore (India); M.S., University of Mysore (India); Ph.D., Howard University; Professor  
B. Michelle Harris, B.A., College of the Holy Cross; M.S. Framingham State College; M.P.H., Harvard University; Ph.D., University of Maryland; Assistant Professor  
Barbara Harvey, B.S., Howard University; M.S., Howard University; Assistant Professor

### College of Arts and Science

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#### Center for Urban Education

Anika Spartley Burtin; B.A. Spelman College; M.A., Teachers College Columbia University; Ph.D. Northwestern University  
WANDA K. MITCHENER-COLSTON, B.A., Shaw University; M.S., University of the District of Columbia; Ph.D., Howard University; Professor  
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#### Department of Education

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Lena Walton: B.Ed., University of the West Indies; Ph.D., University of Alberta; Associate Professor and Chair

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EUGENE JOHNSON, B.A., Miles College; M.S, Tuskegee Institute; Ph.D., University of Minnesota; Professor  
RACHEL M. PETTY, B.S., M.S., Howard University; Ph.D., University of Maryland College Park; Professor  
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PHILICIA JEFFERSON, B.A., M.S., Eastern Washington University, Ph.D., George Mason University; Associate Professor  
LISA T. MOON, B.S., Spelman College; M.A., Ph.D., University of Southern Mississippi; Associate Professor

**School of Engineering and Applied Sciences**

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**Department of Computer Science & Information Technology**

Byunggu Yu, B.S., Korea Aerospace University (South Korea); Ph.D. Illinois Institute of Technology; Professor and Chair  
David Barnett, B.S., Morehouse College; M.A., Ph.D., University of California, Berkley; Professor  
Li Chen, B.S., Wuhan University, (PR China); M.S., Utah State University; Ph.D., University of Luton, (United Kingdom); Associate Professor  
Gail Finley, B.S., M.S., Howard University; Associate Professor  
Doug Hyum Jeong, B.S., M.S., Hallym University (South Korea); Ph.D., The University of North Carolina at Charlotte; Assistant Professor  
Lily Liang, B.S., Tianjin University Mechanical and Electrical Branch, Tianjin, (P.R. China); Ph.D., University of Nevada, Reno; Associate Professor  
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