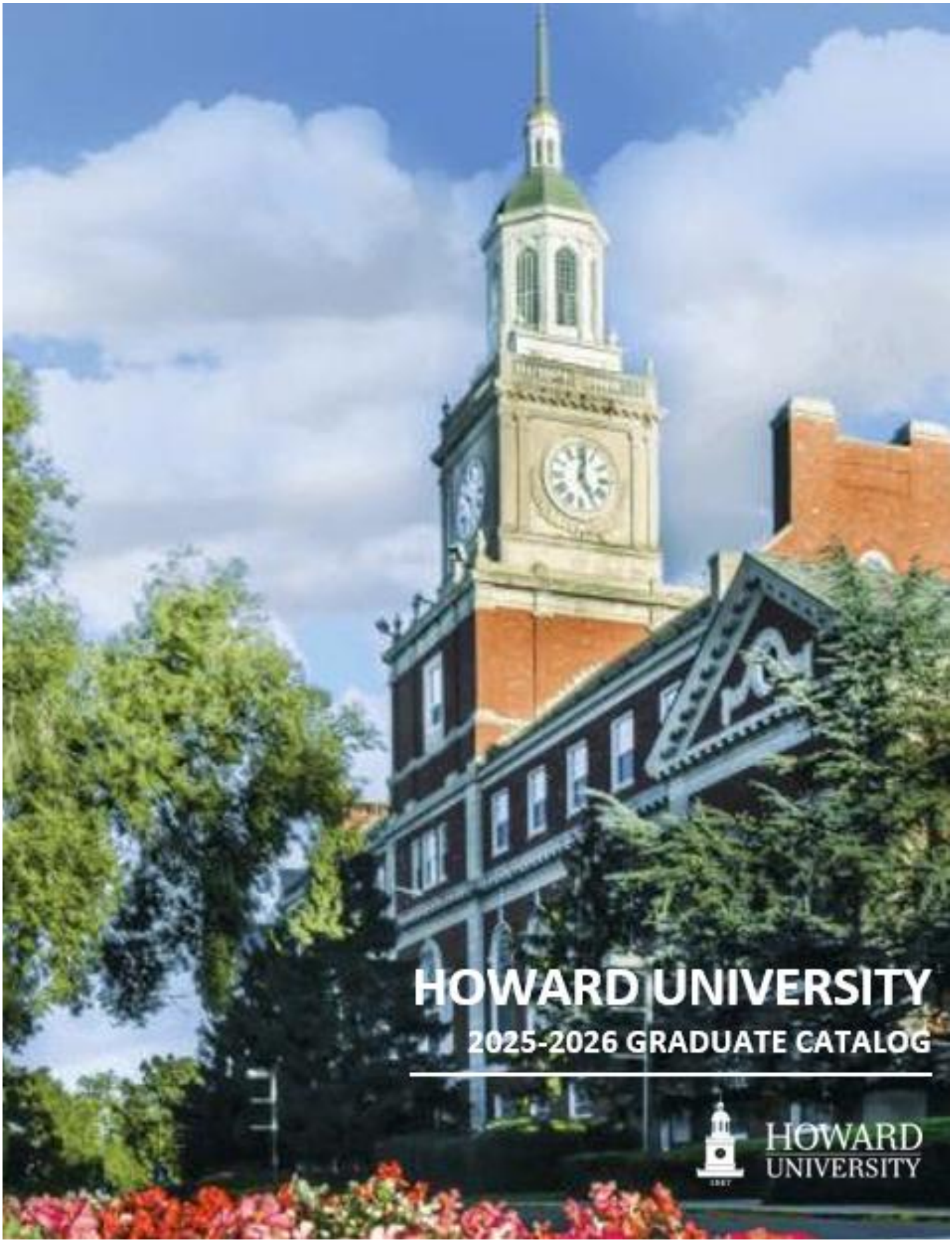

HOWARD UNIVERSITY

2025-2026 GRADUATE CATALOG

HOWARD UNIVERSITY

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Howard University makes every effort to provide accurate and current information in this catalogue. The catalogue is published for informational purposes only and is not a contract. The University reserves the right to change the rules and information governing admission, tuition, fees, financial aid, courses, schedules, the academic calendar, the granting of degrees, or any other regulations affecting its students at any time, for any and all reasons, and without notice. Such changes may be of any nature, including, but not limited to, the elimination of the school, programs, classes, or activities; changes in instructor, course or program pre-requisites or physical location of courses, the relocation of or modification of the content or method of instruction of any of the foregoing; and the cancellation of scheduled classes or other academic activities.

General Information

Howard University

Students pursue 143 programs of study leading to undergraduate, graduate and professional degrees. The University operates with a commitment to Excellence in Truth and Service and has produced one Schwarzman Scholar, three Marshall Scholars, four Rhodes Scholars, 12 Truman Scholars, 25 Pickering Fellows and more than 165 Fulbright recipients. Howard also produces more on-campus African American Ph.D. recipients than any other university in the United States.

Howard is a leader in STEM fields. The National Science Foundation has ranked Howard as the top producer of African-American undergraduates who later earn science and engineering doctoral degrees. The University also boasts nationally ranked programs in social work, business and communications. To date, we have produced three Schwarzman Scholars, four Marshall Scholars, four Rhodes Scholars, 12 Truman Scholars, 25 Pickering Fellows and more than 165 Fulbright recipients.

The College of Medicine is internationally regarded for its illustrious legacy of training students to become competent and compassionate physicians who provide health care in medically underserved communities at home and abroad. The College is a national leader in studying health disparities among people of color and is one of America's top institutions for training women surgeons. The Howard University Health Sciences division includes the Howard University Hospital and the Colleges of Dentistry, Pharmacy, and Nursing and Allied Health Sciences.

For more than 150 years, the Howard University School of Law has served as an advocate for social justice and as an architect of social change. It has produced more than 4,000 social engineers including the first African-American Supreme Court Justice, noted legislators, civil rights attorneys, mayors and public officials across the United States. It is the No. 1 law school for African Americans ranked by preLaw magazine.

The University's motto Veritas et Utilitas, Truth and Service, represents a key part of our identity. The more than 14,000 undergraduate and graduate students dedicate hundreds of hours each year to service in nearby LeDroit Park, around the nation and throughout the world. Over the U.S. Peace Corps' 50-year history, more than 200 Howard graduates have served as volunteers around the globe, the highest number among historically-Black colleges.

The University remains committed to further enhancing its strategic positioning as one of the top research universities in the nation. As we celebrate 154 years, we are uniquely positioned to have the next 150 years as glorious as the past.

University Contact Information

2400 Sixth Street, N.W.
Washinton, DC 20059

Main Phone Number
(202) 806-6100

Contact Directory

Mission Statement

Howard University, a culturally diverse, comprehensive, research intensive and historically Black private university, provides an educational experience of exceptional quality at the undergraduate, graduate, and professional levels to students of high academic standing and potential, with particular emphasis upon educational opportunities for Black students. Moreover, the University is dedicated to attracting and sustaining a cadre of faculty who are, through their teaching, research and service, committed to the development of distinguished, historically aware, and compassionate graduates and to the discovery of solutions to human problems in the United States and throughout the world. With an abiding interest in both domestic and international affairs, the University is committed to continuing to produce leaders for America and the global community.

Howard University Administration Leadership

2025-2026

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VICE PRESIDENT OF COMMUNICATIONS & CHIEF COMMUNICATIONS OFFICER
Lydia G. Sermons
lydia.sermons@howard.edu

HOWARD UNIVERSITY BOARD OF TRUSTEES

Board of Trustees 2025-2026

Deans of Graduate and Professional Schools and Colleges 25-26

School of Business
Anthony Wilbon, Ph.D., Dean

School of Communications
Kimberly Moffit, Ph.D., Dean

College of Dentistry
Andrea Jackson, D.D.S., M.S., FACP, Dean

School of Divinity
Kenyatta Gilbert, Ph.D., Dean

School of Education
Scott Dantley, Interim Dean

College of Engineering and Architecture
Kimberly Jones, Ph.D., Dean

Graduate School
Dana Williams, Ph.D., Dean

School of Law
Roger A. Fairfax , J.D., Dean

College of Medicine
Andrea Hayes Dixon, M.D., FACS, FAAP, Dean

College of Nursing & Allied Health Sciences
Felicia Banks Ph.D., MEd, OTR/L, FAOTA,
Interim Dean

College of Pharmacy
Oluwaranti Akiyode, PharmD, BCPS, CDCES, Dean

School of Social Work
Sheara Jennings, Ph.D., Dean

Accreditation

Institutional Research and Assessment (IRA)
Administration Building, Suite G20
Washington, DC 20059
(202) 865-0207
https://ira.howard.edu/accreditation

INSTITUTIONAL ACCREDITATION

Howard University is accredited by the Middle States Association of Colleges and Schools/Commission on Higher Education.

Middle States Commission on Higher Education
3624 Market Street –
Philadelphia, PA 19104
(215) 662-5606

SPECIALIZED PROGRAM ACCREDITATION

BUSINESS

Master of Business Administration - Association to Advance Collegiate Schools of Business (AACSB) International

COMMUNICATIONS

Communication Sciences & Disorders - American Speech Language Hearing Association (ASHA), Council on Academic Accreditation in Audiology and Speech Language Pathology (CAA)

DENTISTRY

Predoctoral Dental Education (DDS) - American Dental Association (ADA), Commission on Dental Accreditation (CODA)

Pediatric Dentistry Residency Post Doc Certificate- American Dental Association (ADA), Commission on Dental Accreditation (CODA) Oral and Maxillofacial Surgery - American Dental Association (ADA), Commission on Dental Accreditation (CODA)

Orthodontics & Dentofacial Orthopedics Residency (Post Doc Certificate)- American Dental Association (ADA), Commission on Dental Accreditation (CODA)

Advanced Education in General Dentistry Post Doc Certificate - American Dental Association (ADA), Commission on Dental Accreditation (CODA)

General Practice Residency at St. Elizabeth's Hospital- American Dental Association (ADA), Commission on Dental Accreditation (CODA

DIVINITY

D. Min, MA Religious Studies, and M.Div. - Commission on Accrediting of the Association of Theological Schools in the United States and Canada (ATS)

EDUCATION

All Teacher Education Programs (M.Ed, Ed.D, PhD) - Center for the Accreditation of Educator Preparation (CAEP)

Counseling Psychology (PhD) - American Psychological Association (APA), Commission on Accreditation (CoA)

School Psychology (PhD) – National Association of School Psychologists (NASP) (as of Jan 2026)

ENGINEERING & ARCHITECTURE

Architecture (March)- National Architectural Accrediting Board (NAAB)

GRADUATE

Clinical Psychology (PhD) - American Psychological Association (APA), Commission on Accreditation (CoA)

Medical Physics (MS) – Commission on Accreditation of Medical Physics Education Programs (CAMPEP)

LAW

JD - American Bar Association (ABA), Council of the Section of Legal Education and Admission to the Bar

MEDICINE

Medicine (MD) - Liaison Committee on Medical Education (LCME)

NURSING & ALLIED HEALTH SCIENCES

Nursing (MSN) - Commission on Collegiate Nursing Education (CCNE)

Nutritional Sciences Coordinated Program in Dietetics (MS) - Accreditation Council for Education in Nutrition and Dietetics (ACEND)

Occupational Therapy (MS, OTD) - American Occupational Therapy Association (AOTA), Accreditation Council for Occupational Therapy Education (ACOTE)

Physical Therapy (DPT) - American Physical Therapy Association (APTA), Commission on Accreditation in Physical Therapy Education (CAPTE)

PHARMACY

Pharmacy (PharmD) - Accreditation Council for Pharmacy Education (ACPE)

SOCIAL WORK

Social Work (MSW) - Council on Social Work Education (CSWE)

Academic Calendars

University Academic Calendar 2025-2026

College of Dentistry Calendar 24-25

College of Medicine Calendar 2025-2026

School of Law Calendar 2025-2026

Admissions Information

The University promotes academic excellence through a highly selective admission process. Students who are admitted demonstrate strong personal motivation and a history of consistent academic growth and achievement. With more than 30 disciplines and 100 specializations, Howard University's graduate programs prepare graduates to seek truth and provide service to communities around the world.

The general application requirements differ by student category. Please consult the respective school/college/department for admission instructions specific to each program.

- College of Engineering & Architecture
- College of Nursing & Allied Health Sciences
    - Health Administration
    - Physician Assistant Studies
    - Nursing
    - Occupational Therapy
    - Physical Therapy
- College of Fine Arts
    - Art
    - Music
- Graduate School
- School of Business
- School of Communications
- School of Divinity
- School of Education
- School of Social Work
- College of Pharmacy
- School of Law
- College of Dentistry
    - Pre-Doctoral Program
    - Post-Doctoral Programs

Official Transcripts

Applicants must report all institutions attended and send all official transcripts to the respective CAS system (Application Service). Detailed instructions are included in each CAS application. If you do not list or send official transcripts for all institutions attended, processing of your application will be delayed.

Transcripts sent via fax/email or uploaded as an unofficial transcript will not be considered in our official review. If your transcript is being sent via mail, please ensure it is sent by your school in a sealed envelope to the CAS system's transcript processing center. Only transcripts submitted to the processing center will be visible via the 'Check Status' area. We do not encourage you to submit official transcripts via mail directly to Howard University, as there may be significant delays in our receipt.

Sending transcripts electronically? If asked for the recipient's email address, please provide hugsadmission@howard.edu. Otherwise, CAS systems accept electronic transcripts from:

- Credential Solutions
- Parchment
- National Student Clearinghouse

Returning Students

A student who was pursuing a graduate degree at Howard University, who has not been registered at the University for the previous semester, and who wishes to return to the same school/college, department, and degree program. In general, Former Students Returning are readmitted to the last program in which they were enrolled at Howard University.

Graduate students seeking to change their program must submit a new application for admission by the given application deadline posted on the respective application system. Generally, students seeking readmission must submit the Graduate Returning Student Application no less than 30 days prior to the start of the semester to which they are seeking readmission.

Students must consult with their program for specific requirements, and to determine their general admissibility, especially if they were dismissed from their program for poor scholarship (cumulative GPA below minimum threshold).

Before readmission is granted, students must also lift all holds on their account by the given application deadline before they are able to be readmitted.

Non-Degree Students

A non-matriculating student who wishes to complete graduate courses during the Spring or Fall semester.

- Our Spring 2026 application will close on **December 15, 2025.**
- Our Fall 2026 application will close on **March 1, 2026**.
- All application should be submitted via GradCAS.

ADMISSION REQUIREMENTS

The application for non-degree graduate admission at Howard University requires the following documents:

- Application Essay detailing your reason for pursuing admission as a non-degree student
- One letter of recommendation from a designated school official (advisor, department chair, professor etc.) or community leader.
- Official Transcripts
    - Applicants must report all institutions attended and send all official transcripts to GradCAS. If you do not list or send official transcripts for all institutions attended, processing of your application will be delayed.
    - Sending transcripts electronically? Click here for additional information. GradCAS accepts electronic transcripts from:

- Credential Solutions
- Parchment
- National Student Clearinghouse

***Please note**: Credits earned as non-degree students at Howard University **will not** be considered for admission into the university, for students who eventually would like to earn a degree from the university. We encourage students who would like to eventually matriculate into a degree-seeking program at Howard University to consider taking coursework at another regionally accredited college/university, and then apply for degree-seeking admission consideration once the minimum requirements are satisfied. If you have further questions, please contact us at **hugsadmission@howard.edu**.*

Admissions Policies

Howard University Statement

On September 24, 1983, the Board of Trustees of Howard University adopted the following policy statement regarding applicants for admission:

"Applicants seeking admission to Howard University are required to submit accurate and complete credentials and accurate and complete information requested by the University. Applicants who fail to do so shall be denied admission. Enrolled students, who as applicants failed to submit accurate and complete credentials or accurate and complete information on their application for admission shall be subject to dismissal when the same is made known regardless of classification."

Admissions Refund Policy

Equal Opportunity and Diversity

Program Admission Criteria

First-Time Graduate Deferment Policy

Report of Medical History

All students are required to submit a completed Report of Medical History, proof of immunity to vaccine-preventable diseases. All students entering the University for the first time and those returning after an absence of one or more semesters are required to submit a completed health examination (Entrance Medical Record). Students will not be allowed to register for classes if their enrollment and medical forms have not been returned by the announced deadline date. The University reserves the right to deny registration to any

student or prospective student who, in the judgment of the officials of the University Health Service, is suffering from a condition of illness that would be inimical to the health of others. In such cases, the recommendation of the University Health Service is final.

Expenses & Financial Aid

Office of Financial Aid
2400 6th Street NW, Suite 205
Phone: 800-822-26363
finaid@howard.edu

Estimated Cost of Attendance

2025-2026 Estimated Cost of Attendance

Fellowships, Assistantships, and Financial Assistance

Graduate School Funding Opportunities

Edward Alexander Bouchet Doctoral Scholars Fellowship

Ernest E. Just - Percy L. Julian Graduate Research Assistantship

Esther Ottley Fellowship

Frederick Douglass Doctoral Scholars Fellowship

Hawthorne Dissertation Research Fellowship

Ronald E. McNair Graduate Assistantship

Sasakawa Peace Foundation Fellowship

Graduate Assistantships

The graduate assistantship is a nine-month appointment of a student enrolled full-time in a degree-granting program in the Graduate School at Howard University. The appointment may carry remission of tuition and stipend, just remission of tuition, or just a stipend. The appointment requires performance by the student of specified duties no more than 20 hours each week, including preparation time. Graduate assistants may hold the title of teaching assistant or research assistant.

Graduate Assistantship Policy

Graduate PLUS Loan

Graduate PLUS loans are federal loans that graduate or professional students can use to help pay education expenses. The U.S. Department of Education makes Direct PLUS Loans to eligible graduate or professional students through schools participating in the Direct Loan Program. Students must apply and qualify for the graduate PLUS loan each academic year.

To apply, log onto studentaid.gov/plus-app/ to apply starting June 1st. A new application is required each academic year.

Federal Work Study Program

Federal Work Study (FWS) is a federally sponsored program that enables eligible students to earn income through part-time employment with select organizations, including the university, local nonprofit organizations, and government agencies.

Eligible students who complete the FAFSA and have demonstrated financial need are awarded FWS as part of their financial aid packages.

Financial Policies

Financial Aid FAQs

Payment of Tuition and Fees

Office of the Bursar
2400 6th Street NW, Suite 218
Phone: 855-490-2875
bursarhelp@howard.edu

The Office of the Bursar can assist with billing and payment due dates, identifying and removal of financial holds, receipt of outside scholarships, direct pay third-party checks, Special Billing (including third-party contracts and payment plans), and Refunds.

Tuition and Fees

Tuition rates and fees are posted in the **Official Notice of Student Charges 2025-2026**.

Student Financial Calendar 2025-2026

Payment Methods

The University accepts Visa, Discover, Mastercard, American Express, Direct Bank Payments (ACH), and Wire Transfer for payment.

Payment Plan Options

Howard University offers payment plans for the Fall and Spring semesters only. Students can enroll in the payment plan via BisonHub. There is a *$45.00 non-refundable enrollment fee*, and monthly payments are made based on the payment plan enrollment date. The payment plan is managed by TouchNet.

Automatic payments are deducted from a checking/savings account or credit/debit card each month until the semester balance is paid in full. Please note that payment plan enrollment must occur within the current semester in which the student is enrolled. A student cannot be enrolled in a payment plan for two or more semesters simultaneously.

Institutional Refund/Repayment Policy

In accordance with University policy and Federal regulations governing Title IV financial aid programs, the Office of Financial Aid and Student Employment will determine whether total or partial refund/repayment of financial aid funds may be due when a student withdraws from the University or when there is a change in the student's financial aid eligibility. This policy does not apply to instances where a student withdraws from some classes but continues to be enrolled at the University.

A refund is defined in relationship to money paid towards University charges. The refund is the amount paid by financial aid or in cash minus any amount that is kept to cover charges for the period of enrollment. The amount that the University retains will be determined in keeping with federal guidelines which require that the University apply either prorated refund calculations as applicable to first-time Howard University enrollees, or the University refund policy applicable to all others, in order to ensure return of the greater refund to the student financial aid programs.

The term "repayment" relates to any cash disbursed directly to the student for payment of non-institutional educational costs such as living expenses. The repayment is the amount of cash disbursements determined to be greater than the student's expenses while he/she was enrolled and therefore must be returned.

The University refund policy allows for charges to be adjusted or prorated based on the following schedule:

1st day of instruction through 7th calendar day:	100%
8th calendar day through 40th calendar day:	50%
41st calendar day through 60th calendar day:	25%
61st calendar day through the last day of the semester:	0%

The date used to calculate the student's refund or repayment is the effective date reflected on the student's official University withdrawal form or the drop-out date which is defined as the student's last recorded day of attendance, as documented by the University. In the case of dropouts (no official withdrawal), it will be assumed that the student never attended classes and that all financial aid funds must be refunded and/or repaid. Students in this category may provide documentation to confirm the last day of class attendance in order to avoid full refund/repayment of financial aid.

Aid that must be refunded or repaid will be restored to the various financial aid programs in the following sequence:

- Refunds
- Repayment

Graduate Schools and Colleges

SCHOOL OF BUSINESS

SCHOOL OF BUSINESS
2600 6th St NW
Washington, D.C. 20059
Phone: 202-806-1500
https://business.howard.edu/

With dynamic academic departments, groundbreaking centers of excellence, esteemed faculty, award-winning programs, and thousands of alumni across the globe, the Howard University School of Business continues to be ranked among the top business programs in the nation. Graduate degrees offered in the School of Business include the Master of Accountancy, Master of Science in Finance, Master of Business Administration, Global Trilateral MBA Certificate, and the Executive Master of Business Administration.

The Howard MBA program has also partnered with the other professional schools to offer a number of dual degree and special programs. These programs include the DDS/MBA with the School of Dentistry; the JD/MBA program with the School of Law; the MD/MBA program with the School of Medicine; the PharmD/MBA program with the School of Pharmacy; the MSW/MBA with the School of Social Work; and the MDiv/MBA with the School of Divinity. Students seeking a dual degree must meet both the admission requirements of the MBA Program and the other respective schools.

THE CATHY HUGHES SCHOOL OF COMMUNICATIONS

CATHY HUGHES SCHOOL OF COMMUNICATIONS
300 Bryant St NW
Washington, D.C.
20059
Phone: (202) 806-7694
https://communications.howard.edu/

For more than 50 years the Cathy Hughes School of Communications has trained media and communication professionals through premier programs such as public relations, advertising, audio production, journalism, media management, film and television, legal communication, and communications graduate programs. CHSOC graduates are known at the local, national and global levels for their leadership with and across diverse communities through communication research, professional practice, innovation, job creation, social justice, and service via cutting-edge knowledge, skills and technology. Graduate degrees offered include the Master of Fine Arts in Film.

COLLEGE OF DENTISTRY

COLLEGE OF DENTISTRY
600 W Street NW
Washington, D.C.
20059
Phone: (202) 806-6100
https://dentistry.howard.edu/

Established in 1881, the College of Dentistry is the fifth oldest dental school in the United States. The College includes the following departments:

Degrees offered include the Doctor of Dental Surgery (DDS) as well as postdoctoral programs in oral and maxillofacial surgery, orthodontics, pediatric dentistry, advanced education in general dentistry, and general practice residency.

SCHOOL OF DIVINITY

SCHOOL OF DIVINITY - HOLY CROSS HALL
2900 Van Ness St. NW
Washington, DC 20008
Phone: (202) 806-0500
https://divinity.howard.edu/

Howard University School of Divinity (HUSD) is one of the oldest fully accredited (1940) theological schools affiliated with the Association of Theological Schools in the United States and Canada. And, as one of the 14 schools and colleges within Howard, it is the only African-American theological school connected to a comprehensive category I research institution. Degrees offered include the Master of Arts in Religious Studies, Master of Divinity, and the Doctor of Ministry.

SCHOOL OF EDUCATION (HUSOE)

SCHOOL OF EDUCATION
2441 4th Street,
NW Washington,
D.C. 20059
Phone: (202) 806-7340
https://education.howard.edu/

Howard University School of Education (HUSOE) offers degree and certification programs through its three departments: Curriculum and Instruction, Educational Administration and Policy, and Human Development and Psychoeducational Studies.

The mission of Howard University's school of Education is to prepare teachers, administrators, researchers, program evaluators, and human development professionals for leadership in urban and diverse educational settings; significantly influence the national education agenda for African-American children; conduct and disseminate research that supports the belief that all students can learn; and provide a research-based blueprint for developing professionals who are capable of creating environments that evoke the abilities and talents of all students.

COLLEGE OF ENGINEERING & ARCHITECTURE (CEA)

COLLEGE OF ENGINEERING AND ARCHITECTURE
2300 Sixth Street, NW

Washington, D.C. 20059
Phone: (202) 806-6565
https://cea.howard.edu/

The College of Engineering and Architecture is home to the Departments of Architecture; Chemical Engineering; Civil Engineering; Electrical Engineering and Computer Science; and Mechanical Engineering. The vision of CEACS is to become a recognized leader in research and the creation of learning environments conducive to the solution of problems which transcend the boundaries of discipline and profession.

CHADWICK A. BOSEMAN COLLEGE OF FINE ARTS (COFA)

Chadwick A. Boseman College of Fine Arts Childers Hall, Suite 1004,
2455 Sixth Street, NW Washington, DC 20059
Phone: (202) 806-7040
https://finearts.howard.edu/

Named to honor the life and legacy of the late Chadwick A. Boseman, actor, playwright, and scholar, the College of Fine Arts embodies the spirit of an artist whose work, discipline, and leadership have had a lasting impact on contemporary film and stage. The Chadwick A. Boseman College of Fine Arts includes the Department of Art, Department of Music, and Department of Theatre Arts. Graduate degrees offered include the Master of Music and the Master of Fine Arts in Art.

GRADUATE SCHOOL

Graduate School
4th and College
Streets, NW.
Washington,
D.C. 20059
Phone: (202) 806-4676
https://gs.howard.edu/

Howard University Graduate School commits itself to producing leaders for America and the global community. Excellence, leadership, service, and truth are core values that each of our students exemplifies. It is part of Howard University's aim to forward the development of scholars and professionals who drive change and engage in scholarship that provides solutions to contemporary global problems, particularly ones impacting the African Diaspora.

Graduate School Degree Programs:

- African Studies – MA, PhD
- Applied Data Science & Analytics - MS
- Atmospheric Sciences – MS, PhD
- Biology – PhD
- Biomedical & Chemical Engineering - PhD
- Chemical Engineering – MS
- Chemistry – MS, PhD
- Civil Engineering – PhD
- Communication, Culture & Media Studies – PhD
- Communication Sciences and Disorders – MS, PhD
- Computer Science – MS, PhD
- Counseling Psychology - PhD
- Educational Psychology – PhD
- Economics – MA, PhD
- Electrical Engineering & Computer Engineering -PhD
- English – PhD
- Higher Education Leadership & Policy Studies - PhD
- History – MA, PhD
- Interdisciplinary Biomedical Science - PhD
- Mathematics – PhD
- Mechanical Engineering – MEng, PhD
- Medical Physics - MS
- Nutritional Science – MS, PhD
- Pharmaceutical Sciences – PhD
- Physics – MS, PhD
- Political Science – MA, PhD
- Psychology – PhD
- Social Work – PhD
- Sociology – MA, PhD

Graduate School Certificate Programs:

- College and University Faculty Preparation
- Cybersecurity
- International Affairs
- Women's Studies

SCHOOL OF LAW (HUSOL)

SCHOOL OF LAW

2900 Van Ness
Street, NW
Washington, DC
20008
(202) 806-8000
https://law.howard.edu/

The law school is located on its own 22-acre campus in the northwest part of the city approximately five miles from the main campus. Houston Hall, named for the famous civil rights lawyer and strategist Charles Hamilton Houston, is the main academic and administrative building. Notre Dame Hall houses the Career Services Office, the Clinical Law Center, and the offices for major student organizations, including the Howard Law Journal, the national and international moot court teams, the Student Bar Association, and a student newspaper titled The New Barrister. Degrees offered include the Juris Doctor (JD).

COLLEGE OF MEDICINE (HUCM)

COLLEGE OF MEDICINE

520 W St., NW.
Washington, D.C. 20059
Phone (202) 806-5677
https://medicine.howard.edu/

Founded in 1868, the College of Medicine takes pride in its long and illustrious history of training students to become competent and compassionate physicians who provide health care in medically underserved communities. While the College offers excellent research and research training opportunities, the major emphasis is on preparing students to deliver patient care in communities that have a shortage of physicians and public health professionals.

In addition to the College of Medicine, the Howard University Health Sciences Center includes the Howard University Hospital; the College of Dentistry; the College of Pharmacy, Nursing and Allied Health Sciences; the Louis Stokes Health Sciences Library; and the Student Health Center. Degrees offered include the Medical Doctor (MD).

SCHOOL OF SOCIAL WORK (SW)

SCHOOL OF SOCIAL WORK

601 Howard Place,
NW Washington,
D.C. 20059
Phone: Main: 202-806-7300
https://socialwork.howard.edu/

The values of the Howard University School of Social Work are deeply rooted in the core principles of social justice, respect for diversity, and a commitment to the transformation of oppressive conditions. Grounded in the Black Perspective, the School prioritizes the experiences and strengths of African Americans, Africans in the Diaspora, and other marginalized communities. These values are integrated throughout the curriculum, promoting an appreciation for scientific knowledge, a sensitivity to systemic inequities, and a profound respect for the history and achievements of people from diverse backgrounds. The goals and objectives of the School of Social Work emphasize the preparation of advanced-level professionals to practice at the local, national, and international levels, solving human problems and becoming leaders in their communities.

The MSW program has also partnered with other professional schools to offer a number of dual degrees. These degree programs include the MSW/MBA with the School of Business; the MSW/MDiv with the School of Divinity;

and the MSW/MPH with the Graduate School. Students seeking a dual degree must meet both the admission requirements of the MSW program and the other respective schools.

Degree Programs

Accounting (online)

The Howard University Master of Accountancy (MAcc) program is a specialized advanced graduate-level business program focused on preparing graduates for successful careers in corporate accounting, governmental accounting, non-profit accounting, auditing, and advisory and consulting services. The curriculum prepares students, in a significant fashion, for the Certified Public Accounting (CPA) examination through intensive and challenging coursework during the 30-hour program. This program is offered in an online format.

Master of Accountancy (MAcc)

https://business.howard.edu/programs/graduate/master-accountancy

Course	Title	Credits
MACC-506	Advanced Auditing	3
MACC-502	Advanced Cost Accounting	3
MACC-503	Corporate Financial Reporting	3
MACC-504	Entity Taxation	3
MACC-508	Governmental Accounting	3
OECN-500	Economics for Global Business	3
MACC-509	Seminar in Accounting	3
MACC-510	CPA Review	3
GLAW-500	Legal Environment	3
OIST-501	Statistics & Business Analytics	3
	Total credits:	**30**

African Studies

The Department of African Studies (DAS) provides an opportunity for Howard students to acquire an objective view of the present position of Africa in the modern (and changing) world, as well as an understanding of Africa's economic, social, and political problems. The department has adopted an interdisciplinary approach to the study of Africa at both the undergraduate and graduate levels. At the undergraduate level, the department educates students who wish to continue their studies in African affairs or are preparing to work in this field.

Students graduating from the department typically go on to undertake further study and professional careers in African and international affairs as well as obtain employment in fields such as teaching, law, social work, communications, business, non-governmental and governmental organizations.

African Studies (MA)

https://gs.howard.edu/african-studies-ma

Required Core Course Credits

Course	Title	Credits
AFST-211	Scope and Methods of African Studies	3
AFST-212	Theory in African Studies	3
AFST-225	Public Policy and Development	3
AFST-232	Gender Theory and Practice in Africa	3
AFST-304	Africa in World Affairs	3

AFST-322	Language, Literature and Arts	3
	Sub-Total Credits	**18**

Concentration Course Options Below:

Independent Study *NOTE: Only up to three credit hours of independent study may be applied towards an M.A. or PhD degree.

Course	Title	Credits
AFST-200	Independent Study	3
AFST-210	Human Rights Theory & Practice in Africa	3
AFST-216	Military African Politics	3
AFST-220	Protest Political African Novel	3
AFST-224	Africa in World Economy	3
AFST-226	Multinational Corp & Africa Development	3
AFST-228	Development and Planning in Africa	3
AFST-229	Planning for Development in Africa	3
AFST-230	Revolutionary Change in Africa	3
AFST-231	Women & Development in Africa	3
AFST-234	Globalization in Africa	3
AFST-237	Africa & International Law & Org	3
AFST-238	Soc Strat in Contemp Africa	3
AFST-239	Development & Planning II	3
AFST-240	Rural Development in Africa	3
AFST-241	Public Policy & Devel Analysis	3
AFST-242	Development Policy and Administration	3
AFST-244	Urban Development in Africa	3
AFST-245	Foreign Policy Making in African States	3
AFST-261	Islam Culture Philosophy I	3
AFST-262	Islam Culture Philosophy II	3
AFST-270	Conflict Resolution in Africa	3
AFST-271	The Rising Powers? BRICS & Africa	3
AFST-291	Language, Thought, and Reality	3
AFST-292	Religion Social Change Africa	3
AFST-304	Africa in World Affairs	3
AFST-306	Advance Seminar in Research Methods	3
AFST-307	Advance Seminar on Public Policy and Development	3
AFST-308	Advance Seminar African World Affairs	3
AFST-309	Advance Seminar in Language Literature and Arts	3
AFST-312	African Transformational Lead	3
AFST-321	Pol Econ South Africa	3
AFST-322	Lang Lit & Arts in Contemporary Africa	3
AFST-323	South African Literature	3
AFST-324	Oral and Written Literature and Film in Africa	3
AFST-325	Oral Traditions and Written Literature	3
AFST-327	Women in African Literature	3
AFST-328	Film and History in Africa and the Diaspora	3
AFST-356	Education and Social Change in Africa	3
AFST-357	Migrant Remittances and African Development	3
AFST-360	NGOs and Africa	3

AFST-371	Public Finance African,	3
AFST-372	African Political Thought	3
AFST-500	Research in African Studies	3
AFST-600	Internship	3
AFST-740	Comm & Arts in Contemporary Africa	3

Elective Courses

Elective courses may be taken within department (under subject code AFST or other disciplines with adva nce approval. (Options: Courses level 200 and above).

	Sub-Total Credits	**6**

Thesis

Thesis *NOTE: A maximum of 6 thesis credits may be taken per semester. In addition, a maximum of 6 t hesis credits may be counted toward the required credits for program completion.

Course	Title	Credits
AFST-300	Thesis	6
AFST-301	Thesis	6
AFST-302	Thesis	6
	Sub-Total Credits	**6**
	Total credits:	**36**

African Studies (PhD)

https://gs.howard.edu/african-studies-phd

Required Core Course Credits

Course	Title	Credits
AFST-211	Scope and Methods of African Studies	3
AFST-212	Theory in African Studies	3
AFST-225	Public Policy and Development	3
AFST-232	Gender Theory and Practice in Africa	3
AFST-304	Africa in World Affairs	3
AFST-322	Language, Literature and Arts	3
	Sub-Total Credits	**18**

Concentration Course Options Below:

Independent Study *NOTE: Only up to three credit hours of independent study may be applied towards an M.A. or PhD degree.

Course	Title	Credits
AFST-200	Independent Study	3
AFST-210	Human Rights Theory & Practice in Africa	3
AFST-216	Military African Politics	3
AFST-220	Protest Political African Novel	3
AFST-224	Africa in World Economy	3
AFST-226	Multinational Corp & Africa Development	3
AFST-228	Development and Planning in Africa	3
AFST-229	Planning for Development in Africa	3

AFST-230	Revolutionary Change in Africa	3
AFST-231	Women & Development in Africa	3
AFST-234	Globalization in Africa	3
AFST-237	Africa & International Law & Org	3
AFST-238	Soc Strat in Contemp Africa	3
AFST-239	Development & Planning II	3
AFST-240	Rural Development in Africa	3
AFST-241	Public Policy & Devel Analysis	3
AFST-242	Development Policy and Administration	3
AFST-244	Urban Development in Africa	3
AFST-245	Foreign Policy Making in African States	3
AFST-261	Islam Culture Philosophy I	3
AFST-262	Islam Culture Philosophy II	3
AFST-270	Conflict Resolution in Africa	3
AFST-271	The Rising Powers? BRICS & Africa	3
AFST-291	Language, Thought, and Reality	3
AFST-292	Religion Social Change Africa	3
AFST-304	Africa in World Affairs	3
AFST-306	Advance Seminar in Research Methods	3
AFST-307	Advance Seminar on Public Policy and Development	3
AFST-308	Advance Seminar African World Affairs	3
AFST-309	Advance Seminar in Language Literature and Arts	3
AFST-312	African Transformational Lead	3
AFST-321	Pol Econ South Africa	3
AFST-322	Lang Lit & Arts in Contemporary Africa	3
AFST-323	South African Literature	3
AFST-324	Oral and Written Literature and Film in Africa	3
AFST-325	Oral Traditions and Written Literature	3
AFST-327	Women in African Literature	3
AFST-328	Film and History in Africa and the Diaspora	3
AFST-356	Education and Social Change in Africa	3
AFST-357	Migrant Remittances and African Development	3
AFST-360	NGOs and Africa	3
AFST-371	Public Finance African,	3
AFST-372	African Political Thought	3
AFST-500	Research in African Studies	3
AFST-600	Internship	3
AFST-740	Comm & Arts in Contemporary Africa	3
	Sub-Total Credits	**36**

Elective Courses

Elective courses may be taken with department under subject code AFST or other disciplines; (Options: Co urses level 200 and above).

	Sub-Total Credits	**9**

Dissertation Research

Dissertation Research *NOTE: A maximum of 9 credits may be taken per semester for this course. In ad dition, a maximum of 9 course credits may be counted toward the 72 required for program completion.

	Sub-	
	Total Credits	**9**

Total Credits:	**72**

Applied Data Science and Analytics

Howard Graduate School's fully online interdisciplinary M.S. in Applied Data Science and Analytics program prepares data-driven leaders to generate, analyze, interpret, and present complex data in compelling ways that solve real-world problems. Whether you are interested in using data science for social impact, predicting the spread of a disease outbreak, or understanding the impacts of racial bias implicit in facial recognition software, predictive policing algorithms, or AI-based financial services, our M.S. in Applied Data Science and Analytics is designed to equip you with the data science skills you need to advance your career and make a meaningful impact in your work. Foundational coursework in data mining and machine learning, predictive modeling and analytics, SQL and relational databases, statistical programming in R and Python, and data visualization provides the skills you need to enhance your decision-making in academic, government, professional, applied research, social impact, and policy settings. With a unique emphasis on the growing importance of data analysis across academic disciplines, our program provides traditional data science opportunities while also offering specializations in minority health & health disparities, social justice, environmental justice, and economic empowerment. You'll tailor your studies to align with your career interests and analyze data to better understand a challenge within an applied field, culminating in a final capstone experience. Our data science faculty bring their industry expertise in fields ranging from information technology to sociology, to help connect coursework to real-world situations.

Applied Data Science & Analytics (MS)

https://gs.howard.edu/applied-data-science-analytics-ms

Required Core Course Credits

Course	Title	Credits
DATA-200	Introduction to Applied Data Science	3
DATA-201	Computational Social Justice	3
DATA-202	Statistically Measuring & Modeling Social Justice	3
DATA-300	Engineering & Managing Data-Driven Change	3
DATA-301	Data Storytelling & Visualization	3
DATA-302	Applied Data Science for Social Impact	3
DATA-303	Applied Machine Learning, Bias, & Ethics	3
DATA-802	Practicum/Internship	2
DATA-801	Graduate Capstone	1
	Electives Any Graduate Level Course	6
	Total Credits:	**30**

Architecture

The Master of Architecture program is steeped in the tradition of design excellence that began at Howard University in 1911. The Master of Architecture curriculum includes five courses (15 credit hours across three lecture format and two studio courses) in a concentration, which initially focuses on Community Design and Planning.

This program exposes students to a myriad of opportunities to design efficient and aesthetically pleasing built environments. Students explore a range of architectural typologies, tectonics, and settings and engage a broad perspective on the human environment. This program continues the longstanding tradition of the

Department of Architecture to educate, train, and socialize students in a manner that prepares them to participate as leaders in architectural production, regardless of their individual architectural design career direction. The Master of Architecture program maintains Howard's commitment to excellence, equality, and leadership to design your future.

Architecture (MArch)

https://cea.howard.edu/academics/departments/architecture/march-program

Course	Title	Credits
ARCH 868	Architecture Thesis I	6
ARCH 828	Advanced Theories of Architecture	3
ARCH 882	Professional Practice in Architecture	3
ARCH 885	Architecture Graduate Seminar	3
ARCH 869	Architecture Thesis II	6
ARCH 808	Graduate Architecture Independent Study	3
	Architecture Professional Elective	3
	Architecture Professional Elective	3
	Total credits:	**30**

Art

The Master of Fine Arts program is a two-year professional program in Studio Art in the areas of ceramics, design, fashion design, electronic studio, interior design, painting, or sculpture. The student is expected to demonstrate mastery of technique and processes in studio art. In addition, the student is required to demonstrate written and verbal competency through the preparation and defense of a thesis. The curriculum encourages students to explore traditional and alternative methods, new technology, and contemporary media in pursuit of their creative objectives.

Art (MFA)

https://finearts.howard.edu/departments-centers/art/academics-art/graduate-programs

Required Core Courses

Students must complete 24 credits of Studio and Related Area courses from their selected concentration

Course	Title	Credits
ARTG	Studio Art Courses	
	Sub-Total credits:	**24**

Other Studies in Art Design/Art History or Studio Electives

Students must complete 12 credits from Other Studies in Art Design, African American Art, Art History or Studio Electives based on their selected concentration

Course	Title	Credits
ARHI/FASH/INTG	Studio Art Courses	
	Sub-Total credits:	**12**

Concentration Electives

Students must complete 12 credits from additional courses or electives based on their selected concentration.

Course	Title	Credits
ARTG/INTG	Studio Art Courses	
	Sub-Total credits:	**12**

Thesis

Students must complete 12 credits of MFA Thesis.

Course	Title	Credits
ARTG 300	Thesis I	3
ARTG 301	Thesis II	3
ARTG 302	Thesis III	3
ARTG 303	Thesis IV	3
	Total credits:	**12**

Atmospheric Sciences

The Howard University Graduate Program in Atmospheric Science (HUPAS) is an advanced degree-granting interdisciplinary program offering the Master of Science and Doctor of Philosophy degrees in atmospheric science. Established by the Howard University Board of Trustees in 1997, the Program is affiliated with the Departments of Chemistry, Mechanical Engineering and Physics and Astronomy. HUPAS is dedicated to preparing students from traditionally underrepresented groups for leadership careers in atmospheric science and related fields. HUPAS is aiding federal agencies such as NOAA and NASA, as well as industry and academia diversify this niche area of the workforce while engaging in leading research directly relevant to national security, commerce and environmental security. In a relatively short period of existence HUPAS has emerged as an exemplar in realizing Howard's mission by: delivering experiences of exceptional quality to students; helping to attract a cadre of strong, socially responsible scholars and educators; impacting diversity statistics on the national production of atmospheric scientists, and contributing to critical societal needs through research.

Atmospheric Sciences (MS)

https://gs.howard.edu/atmospheric-sciences-ms

Required Core Course Credits

Course	Title	Credits
ATMS-301	Current Topics in Atmospheric Science	3
ATMS-320	Atmospheric Physics	3
ATMS-321	Atmospheric Physics II	3
ATMS-330	Atmospheric Chemistry	3
ATMS-340	Geophysical Fluid Dynamics I	3
ATMS-341	Atmospheric Dynamics II	3
ATMS-523	Synoptic Meteorology	3
ATMS-537	Instrumentation	3
ATMS-550	Radiation Chemistry	3
ATMS-570	Remote Sensing	3
ATMS-572	Numerical Weather Prediction	3
	Sub-Total Credits:	**34**

Elective Courses

Elective Course (Options: Courses under subject codes ATMS, HHPL, and MEEG; 3 credit classes only)

Course	Title	Credits
ATMS-330	Science, Technology and African Development	3
ATMS-331	Social Media and Political Change in Africa	3
ATMS-520	African Development and Underdevelopment	3
ATMS-535	Globalization in the African World	3
ATMS-545	History of South Africa	3
ATMS-530	Issues of Health Policy and Development in Africa	3
ATMS 550	Planning for Development in Africa I	3
ATMS 573	Women and Development in Africa	3
ATMS 585	PBL/Micrometeorology	
ATMS 590	Special Topics	
	Sub-Total Credits:	**6**

Atmospheric Sciences (PhD)

https://gs.howard.edu/atmospheric-sciences-phd

Course	Title	Credits
ATMS-300	Intro to Atmospheric Sciences	3
ATMS-301	Current Topics in Atmospheric Sciences	1
ATMS-330	Atmospheric Chemistry I	3
ATMS-331	Atmospheric Chemistry II	3
ATMS-340	Geophysical Fluid Dynamics I	3
ATMS-341	Atmospheric Dynamics II	3
ATMS-320	Atmospheric Physics I	3
ATMS-321	Atmospheric Physics II	3
ATMS-550	Atmospheric Radiation	3
ATMS-551	Atmospheric Radiation II	3
ATMS-570	Remote Sensing I	3
ATMS-670	Remote Sensing II	3
ATMS-571	Numerical Weather Prediction I	3
ATMS-572	Numerical Weather Prediction II	3
CHEM-297	Planetary Atmospheres	3
ATMS-523	Synoptic Meteorology	3
ATMS-530	Air Pollution Meteorology	3
ATMS-520	Climatology	3
ATMS-537	Advanced Laboratory and Instrumentation	3
MEEG-611	Turbulence	3
	Elective Course	3
ATMS-795	PhD Research in Atmospheric Chemistry	5
ATMS-600	PhD Dissertation Research	6
	Total credits:	**72**

Biology

The Department of Biology offers a graduate program that leads to the Doctor of Philosophy degree in two major areas of concentration: 1) Cell and Molecular Biology (CMB) and 2) Ecological, Environmental and Systematic Biology (EESB). CMB

offers specialization in immunology, cell biology, molecular biology, genetics, neurobiology, physiology, developmental biology, microbiology and bioinformatics, while EESB offers specialization in ecology, evolutionary biology, environmental biology, conservation biology, and organismal biology.

Biology (PhD)

https://gs.howard.edu/biology-phd

Required Course Credits

Course	Title	Credits
BIOC-101	Biochemistry	4
CHEM-251	Biochemistry	3
BIOG-419	Bioinformatics	4
BIOG-430	Biostatistics	4
BIOG-445	Eukaryotic Gen Exp	4
BIOG-532	Molecular Biology of the Cell	4
BIOG-533	Ecological and Environmental Biology	4
BIOG-534	Evolutionary and Systematic Biology	4
	Sub-Total Credits	**15**

Students should take BIOC 101 OR CHEM 251
Ph.D. students are required to complete courses from 3 out of 5 core areas. The core areas are Biochemistry, Molecular Biology of the Cell, Ecological and Environmental Biology, Evolutionary and Systematic Biology, and Computational Biology.

Electives

Elective Courses (Options: Courses under subject code BIOG level 300 and above)

	Sub-Total Credits	**36**

Biological Writing

Course	Title	Credits
BIOG-200	Biological Writing	1
	Sub-Total Credits	**1**

Graduate Seminar 1

Graduate Seminar I *Note: Only one seminar course can be taken per semester.

Course	Title	Credits
BIOG-500	Graduate Seminar I	1
	Sub-Total Credits	**1**

Graduate Seminar II

Graduate Seminar II * Note: Only one seminar course can be taken per semester.

Course	Title	Credits
BIOG-501	Graduate Seminar II	1
	Sub-Total Credits	**1**

PhD Research

PhD Research * Note: A maximum of 6 credits may be taken per semester for this course. In addi tion, a maximum of 6 course credits may be counted toward the 72 required for program completion.

Course	Title	Credits
BIOG-699	PhD Research	6
	Sub-Total Credits	**6**

PhD Dissertation

PhD Dissertation * Note: A maximum of 12 credits may be taken per semester for this course. In addi tion, a maximum of 12 course credits may be counted toward the 72 required for program completion.

Course	Title	Credits
BIOG-700	PhD Dissertation	1-12
	Sub-Total Credits	**12**
	Total credits:	**72**

Biomedical and Chemical Engineering

The Ph.D. in Biomedical and Chemical Engineering at Howard's Graduate School is designed for students interested in pursuing research studies in areas like infectious disease, food engineering, biomechanics and modeling, energy and sustainability, and environmental remediation. As a Ph.D. student in our program, you will develop a holistic understanding of ethical, environmental, and social responsibilities. Our program will prepare you for a career in research, teaching, government, and industry in areas like biotechnology, pharmaceutics, consumer product design, manufacturing, and renewable energy. You'll apply fundamental understandings of chemical and biomedical engineering and practical training in theoretical, computational, and experimental techniques, including computational modeling of cellular networks, genetic analysis, biomolecule synthesis, and optimization. You'll enjoy the close mentorship of faculty who are experts in wide-ranging fields, including hazardous waste remediation, biopolymers, bioengineering, fluid and thermal sciences, tissue engineering and drug delivery, environmental engineering, dynamics of reacting systems, nanotechnology, and computational science. You'll also enjoy a highly collegial atmosphere and opportunities to collaborate with faculty on research funded by private and public sector agencies such as the National Science Foundation (NSF), U.S. Department of Energy, U.S. Environmental Protection Agency, and ExxonMobil. Our students advance the field of biomedical and chemical engineering, from developing more energy-efficient solar cells to designing medical technologies that modernize the diagnosis and safe treatment of diseases.

Biomedical and Chemical Engineering (PhD)

https://gs.howard.edu/biomedical-chemical-engineering-phd

Core Course Credits Required

Course	Title	Credits
CHEG-501	Advanced Transport	3
CHEG-502	Advanced Thermodynamics	3
CHEG-504	Advanced Mathematics	3
CHEG-505	Advanced Chemical Engineering Reactions	3
	Sub-Total Credits	**12**

Biomedical Engineering Concentration

Course	Title	Credits
	Courses related to Biomedical sciences, Biochemistry, Molecular and Cell Biology, Biophysics, Biotechnology, and Bioengineering	12
	Sub-Total Credits	**12**

Electives

Course	Title	Credits
	Advisor recommended STEM electives	12

	Sub-Total Credits	**12**

Research Method Courses

Course	Title	Credits
	Graduate Research and/or Research Method Courses	12
	Sub-Total Credits	**12**

Seminars

Course	Title	Credits
CHEG 801, CHEG 802 or CHEG 811	Graduate Seminar	6
	Sub-Total Credits	**6**

Thesis and Dissertation Courses

Course	Title	Credits
	PhD Thesis Courses	18
	Sub-Total Credits	**72**

Biomedical Sciences

The interdisciplinary Ph.D. in Biomedical Sciences (IBMS) program at Howard's Graduate School welcomes applicants with backgrounds in the biomedical and biological sciences, neuroscience, chemistry, biochemistry, health sciences, or biochemical engineering and computational sciences, environmental health sciences, and other related fields. The Ph.D. in Biomedical Sciences program is designed to train the next generation of Ph.D. scientists who want cross-disciplinary training in biomedicine and who will apply their research expertise to unravel the basis of diseases and to contribute to the development of preventative and interventive therapies. This approach includes understanding not only pathogenic manifestations of disease but also the normal anatomical and physiological state. The program aims to train independent research scientists to bridge the wide gulfs that currently exist between basic science research and clinical medicine. Graduates with a Ph.D. in Biomedical Science are well positioned to contribute to advancements in the health sciences field, pursuing faculty positions at research universities and careers in industry or across a wide range of biomedical fields.

As a student in our Ph.D. program, you can tailor your program of study to your individual research interests. In year 1, all students participate in the "Core Track" which provides a common set of foundational courses for students to gain a general understanding of biomedical science research. Students participate in a minimum of two lab research rotations, which facilitates the selection of a potential mentor. In year 2, students will choose from one of five areas of research specialization: Anatomy, Biochemistry, Microbiology, Pharmacology and Physiology. Each of these Research Tracks have specific course requirements. Biomedical sciences faculty have robust research programs in such areas as cancer, neuroscience, cardiovascular disease, developmental biology, genomics, infectious disease, molecular biology, and virology. As a student in the IBMS graduate program, you will enjoy a highly collegial atmosphere and numerous opportunities to collaborate with faculty on grant-funded lab research and participate in journal labs. Students may pursue a dual M.D./Ph.D. degree.

Interdisciplinary Biomedical Sciences (PhD)

https://gs.howard.edu/biomedical-sciences-phd

Required Core Course Credits

Course	Title	Credits
IBMS-201	Foundations in Biomedical Sciences I	6
IBMS-202	Foundations in Biomedical Sciences I	6
IBMS-301	Methods in Biomedical Science	4
IBMS-401	Experimental Design/Intro Biostatistics	2
IBMS-402	Biostatistics & Bioinformatics	3
IBMS-501	Lab Rotation 1	2
IBMS-601	Journal Club/Critique of Scientific Literature	1
IBMS	Lab Rotation 2	2

IBMS	Lab Rotation 3	2
IBMS	Manuscript Writing/Presentation Skills	2
IBMS	Grant Writing	2
IBMS	Seminar Journal Club	2
IBMS	Directed Research	1-9
IBMS	Dissertation Research	12
	Sub-Total Credits	**47**

Research Track Courses Core Courses

Anatomy Track (PhD)

Course	Title	Credits
ANAT-301	Musculoskeletal Anatomy	6
ANAT-173	Neurobiology	5
ANAT-213	Organ Systems Anatomy	4
	Sub-Total Credits	**15**

Biochemistry and Molecular Biology Track (PhD)

Course	Title	Credits
BIOC-170	General Biochemistry	7
BIOC-203	Graduate Biochemistry Laboratory	3
BIOC-240	Advanced Enzymology	3
BIOC-208	Protein Structure and Function	3
BIOC-270	Molecular Biology	3
BIOC-272	Metabolic Regulation	3
BIOC-211	Orientation to Research	3
BIOC-201	Seminar in Biochemistry	1
	Sub-Total Credits	**26**

Microbiology Track (PhD)

Course	Title	Credits
MICR-300	Biology of Pathogens I	5
MICR-303	Biology of Pathogens II	4
MICR-304	Cellular Molecular Immunology	4
MICR-305	Cell Biology	3
MICR-307	Virology	4
	Sub-Total Credits	**20**

Pharmacology and Therapeutics Track (PhD)

Course	Title	Credits
PHAR-219	Graduate Biomedical Informatics	2
PHSI-210	Medical Physiology	7
PHAR-203	Introduction to Theory and Methods in Toxicology	4
PHAR-216	General and Systemic Pharmacology I	4
PHAR-217	General and Systemic Pharmacology II	4-6
	Sub-Total Credits	**21-23**

Physiology Track (PhD)

Course	Title	Credits
PHSI-206	Neurophysiology	3
PHSI-282	Physiology of Homeostasis	3

PHSI-252	Cell-Molecular Physiology	3
PHSI-204	Advanced Mammalian Physiology	7
	Sub-Total Credits	**16**

IBMS Electives

Must include courses in Physiology and/or Biochemistry/Molecular Biology. Students typically take electives in Biochemistry, Biology, Genetics, Microbiology, Pharmacology, Physiology, Biophysics, or Psychology. Students must select their electives in consultation with the student's advisor. Some important elective courses for Anatomy students include: Vertebrate Neuroanatomy; Topics in Developmental Biology; Human Evolution; Topics in Evolutionary Biology; Topics in Cell Biology; Neurophysiology; Biochemistry; Molecular Biology; Genetics; and Psychopharmacology.

Course	Title	Credits
	Sub-Total Credits	4-15
	Total Credits	**77**

Business

The MBA Program at Howard University is known for its ability to prepare students for leadership across industries. As the first university in Washington, D.C. to be accredited by the Association to Advance Collegiate Schools of Business (AACSB) International, Howard University has remained a pioneer in attracting some of the best talent in the country and preparing them to propel to the next level of career success and join leaders who are changing the game in business and beyond.

Business Administration (traditional) (MBA)

https://business.howard.edu/programs/graduate/master-business-administration

Required Course Credits

Course	Title	Credits
GACC-500	Financial Accounting	3
GFIN 500	Financial Management	3
GMGT-500	Organizational Management	3
GMKT-500	Marketing Management	3
GIST-501	Statistics & Business Analytics	3
GIST-502	Production/Operations Research	3
GIST-500	Principles of Information Systems	3
GACC-501	Management Accounting	3
GECN-503	Economics for Global Business	3
GIST-509	Project Management	3
GMGT-590	Strategic Management	3
	Sub-Total Credits	**33**

Concentration Electives

Course	Title	Credits
GENT-520	Entrepreneurship	3
GIST-503	Innovation & Tech Management	3
GINB-500	Global Business Environment	3
GMKT-501	Marketing Research	3
GSCM-501	Procurement Management	3
	Sub-Total Credits	**15**
	Total credits:	**48**

Business Administration (online) (MBA)

https://business.howard.edu/graduate/howard-mba/online-mba

Required Core Course Credits

Course	Title	Credits
OACC-500	Financial Accounting	3
OFIN 500	Financial Management	3
OMGT-500	Organizational Management	3
OMKT-500	Marketing Management	3
OIST-501	Statistics & Business Analytics	3
OIST-502	Production/Operations Research	3
OIST-500	Principles of Information Systems	3
OACC-501	Management Accounting	3
OECN-503	Economics for Global Business	3
OIST-509	Project Management	3
OMGT-590	Strategic Management	3
OIST-508	Cyber Risk Management	3
OFIN-505	Financial Modeling	3
OMGT-599	Global Management Consulting	3
OSCM-500	E-Commerce in Supply Chain Management	3
OENT-520	Entrepreneurship	3
	Total Credits	**48**

Executive Business Administration (online) (EMBA)

https://business.howard.edu/programs/executive-education/online-executive-mba

Course	Title	Credits
XMGT-500	Organizational Behavior and Leadership	3
XMKT-500	Marketing Strategy	3
XACC-500	Accounting for Executives	3
XECN-500	Applied Economics for Executives	3
XENT-520	Entrepreneurship	3
XIST-500	Managing Technology and Innovation	3
XMGT-599	Management Consulting	3
XFIN-500	Financial Management	3
XCOM-500	Strategic Communications	3
XIST-501	Management Statistics and Data Analysis	3
XIST-502	Creating Value through Supply Chain	3
XLAW-500	Legal and Ethical Issues in Business	3
XINB-500	Managing the Global Business	3
XMGT-590	Strategic Management Capstone	3
	Total credits:	**42**

Chemical Engineering

The Master of Science (M.S.) in Chemical Engineering at Howard's Graduate School is designed for students interested in studying biochemical, environmental, and materials process engineering, among other related fields. Our program will prepare you, like many of our graduate alums, for a career in research, government, and industry, including in biotechnology, pharmaceutics, consumer products, manufacturing, and renewable energy. Other graduates go on to

pursue further study at the doctoral level. You'll gain a solid foundation in the fundamental concepts of chemical engineering (thermodynamics, material and energy balances, and kinetics) and practical training in theoretical, computational, and experimental techniques, including fluid mechanics, process simulation, genetic analysis, biomolecule synthesis, and optimization. The program's core areas of strength include energy and design for sustainability, nanotechnology, biomolecular engineering, environmental engineering, chemical reaction engineering, transport phenomena, process control and design, and applied mathematics for chemical engineers. You'll enjoy the close mentorship of faculty who are experts in wide-ranging fields, including hazardous waste remediation, biopolymers, bioengineering, fluid and thermal sciences, environmental engineering, dynamics of reacting systems, nanotechnology, and computational science. You'll also enjoy a highly collegial atmosphere and opportunities to collaborate with faculty on research funded by private and public sector agencies such as the National Science Foundation (NSF), U.S. Department of Energy, U.S. Environmental Protection Agency, and ExxonMobil.

Chemical Engineering (MS)

https://gs.howard.edu/chemical-engineering-ms

Required Core Course Credits

Course	Title	Credits
CHEG-612	Advanced Transport	3
CHEG-502	Advanced Thermodynamics	3
	CHEG-504 Advanced Math or PHYS-216 Math Methods in Physics I	3
CHEG-505	Advanced Chemical Engineering Reactions	3
	Sub-Total Credits	**12**

Electives

Elective Course (Options: Courses under subject codes CHEG or courses in other disciplines in consultation with advisor)

	Sub-Total Credits	**12**

Seminar Series and Research

Students must complete 6 seminar series credits total

Course	Title	Credits
CHEG-601	Graduate Research	1
CHEG-602	Graduate Research	2
CHEG-801	Graduate Seminar I	1
	Sub-Total Credits	**6**

Thesis

* Note: A maximum of 3 thesis credits may be taken per semester. In addition, a maximum of 6 thesis c redits may be counted toward the required credits for program completion. Six hours must be taken through the program to meet degree requirements.

Course	Title	Credits
CHEG-701	MS Thesis I	1-3
CHEG-702	MS Thesis II	1-3
	Sub-Total Credits	**6**
	Total credits:	**36**

Chemistry

Our Chemistry graduates are prepared for global leadership in the private sector, industry, and government. The M.S. in Chemistry at Howard's Graduate School provides rigorous training in chemistry research and real-world applications. The program prepares graduates to pursue careers in the private sector, industry, and government and to pursue further graduate study at the doctoral level. Our graduates have landed positions in industry, working for companies such as Intel, SC Johnson, Bayer Material Science, Exxon Mobil, and Merck, and jobs at federal agencies such as the National Aeronautics and Space Administration (NASA) and the Environmental Protection Agency (EPA). The program welcomes applicants with various backgrounds, including environmental engineering, biomedical sciences, chemistry, mathematics, and atmospheric sciences, among other fields. As a student in the M.S. in Chemistry program, you'll gain a solid foundation in research design and analytical instrumentation and practical training in a chemical laboratory and computational techniques. You can pursue study in a chosen chemistry subdiscipline, including analytical, atmospheric, biological, inorganic, organic, materials, medicinal, computational, physical, and polymer chemistry and nanochemistry.

The Ph.D. in Chemistry at Howard's Graduate School provides rigorous chemistry research training and real-world applications. Our graduates have landed positions in industry, working for companies such as Intel, SC Johnson, Bayer Material Science, Exxon Mobil, and Merck, and senior-level positions at federal agencies such as the National Aeronautics and Space Administration (NASA) and the Environmental Protection Agency (EPA). Our program welcomes applicants with various backgrounds, including environmental engineering, biomedical sciences, chemistry, mathematics, and atmospheric sciences, among other fields. As a doctoral student in our program, you'll gain a solid foundation in research design and analytical instrumentation as well as practical training in chemical laboratory and computational techniques. You can pursue study in a chosen subdiscipline of chemistry, including analytical, atmospheric, biological, inorganic, organic, materials, medicinal, computational, physical, and polymer chemistry and nanochemistry. You'll have opportunities to collaborate with faculty in modern clinical laboratories.

Chemistry (MS)

https://gs.howard.edu/chemistry-ms

Required Core Course Credits

Course	Title	Credits
CHEM-201	Inorganic Chemistry	3
CHEM-231	Advanced Analytical Chemistry	3
CHEM-243	Advanced Organic Chemistry	3
CHEM-278	Advanced Physical Chemistry I	3
CHEM-279	Advanced Physical Chemistry II	3
	Sub-Total Credits	**15**

Elective Courses

Elective Options: All students must take a graduate-level Professional Development Course and (at least) two graduate courses outside of their chemistry division. These courses may be from Chemistry (subject code CHEM) or other departments such as Pharmacy (subject code PHSC), Physics (subject code PHYS), Engineering (subject codes CHEG, EECE, or CIEG), Biology (subject code BIOG), or related disciplines. **These courses must be chosen in discussion with a student's graduate advisor.**

	Sub-Total Credits	**15**
	Total credits:	**30**

Chemistry (PhD)

https://gs.howard.edu/chemistry-phd

Required Core Course Credits

Course	Title	Credits
CHEM-201	Inorganic Chemistry	3
CHEM-231	Advanced Analytical Chemistry	3
CHEM-243	Advanced Organic Chemistry	3
CHEM-278	Advanced Physical Chemistry I	3
CHEM-279	Advanced Physical Chemistry II	3
	Sub-Total Credits	**15**

Elective Courses

Elective Options: All students must take a graduate-level Professional Development Course and (at least) two graduate courses outside of their chemistry division. These courses may be from Chemistry (subject code CHEM) or other departments such as Pharmacy (subject code PHSC), Physics (subject code PHYS), Engineering (subject code CHEG, EECE, or CIEG), Biology (subject code BIOG), or related disciplines. **Th ese courses must be chosen in discussion with a student's graduate advisor.**

	Sub-Total Credits	**47**

PhD Research Course Options:

*Choose from the options below (1crs required)

Course	Title	Credits
CHEM-411	Research in Inorganic Chemistry	1
CHEM-421	Research in Analytical Chemistry	1
CHEM-441	Research in Organic Chemistry	1
CHEM-451	Research in Biochemistry	1
CHEM-471	Research in Physical Chemistry	1
	Sub-Total Credits	**1**

PhD Dissertation

Note: A maximum of 9 dissertation credits may be taken per semester. In addition, a maximum of 9 dissertation credits may be counted toward the 72 required for program completion.

Course	Title	Credits
CHEM-600	PhD Dissertation	1-9
	Sub-Total Credits	**9**
	Total credits:	**72**

Civil Engineering & Environmental Engineering

The Ph.D. in Civil and Environmental Engineering at Howard's Graduate School prepares a new generation of engineering graduates to engage in high-impact research addressing engineering and environmental problems. Our Ph.D. program will prepare you, like so many of our graduate alumni, for a career in research, government, university teaching, or industry. Howard's Civil and Environmental Engineering Department has established research strengths in environmental and water resources engineering, structural and earthquake engineering, transportation engineering, and geotechnical engineering. You'll learn to formulate, interpret, and analyze problems in engineering practice and effectively communicate your research results to decision-makers. You'll also gain practical training in large-scale experimental testing, simulation, and modeling techniques.

Civil Engineering (PhD)

https://gs.howard.edu/civil-environmental-engineering-phd

Core Courses

Course	Title	Credits
CIEG-511	Aquatic Chemistry	3
CHEG-412	Transport Phenomena	3
BIOL-424	Environmental Microbiology	3
CIEG-502	Environmental Physical Chem Processes	3
CIEG-501	Environmental Biological Processes	3
CIEG-557	Advanced Hydrology	3
CIEG-514	Finite Element Analysis	3
CIEG-600	Advanced Soil Mechanics	3
CIEG-603	Advanced Foundation Engineering	3
CIEG-513	Matrix Structural Analysis	3
CIEG-555	Structures Research Project	3
CIEG-579	Advanced Traffic Engineering	3
CIEG-507	Traffic Flow Theory	3
CIEG-504	Intelligent Transportation Systems	3
CIEG-466	Traffic Engineering II	3
CIEG-544	Transportation Engineering Research	3
CIEG-605	Research Methods	3
CIEG-614	Special Topics in Geotechnical Engineering I	3
CIEG-615	Special Topics in Geotechnical Engineering II	3
CIEG-616	Advanced Optimization	3
PHYS-216	Math Methods in Physics I	3
PHYS-217	Math Methods in Physics II	3
CIEG-620	Transportation Systems Modeling and Analysis	3
CIEG-619	Urban Transit Planning	3
CIEG-567	Construction Project Management	3
CIEG-618	Transportation Engineering Project	3
EECE-502	Engineering Analysis A	3
HUDE-400	Intermediate Statistics	3
HUDE-500	Advanced Statistics	3
CIEG-529	Introduction to Structural Protective Systems	3
CIEG-500	Special Topics in Structures	3
CIEG-603	Advanced Foundation Engineering	3
CIEG-509	Structures Research Project II	3
CIEG-622	Earthquake Engineering Research I	3
CHEM-251	General Biochemistry	3
CIEG-626	Adv. Research in Environmental Eng.	3
CIEG-553	Environmental Engr Proj Res	3
	Sub-Total Credits	**63**

Note: Engineering Ph.D. students must take 63 credits from the courses listed above based on their respective sub-discipline.

Dissertation Research

Note: A maximum of 9 Dissertation Research credits may be taken per semester. In addition, a maximu m of 9 Dissertation Research credits may be counted toward the 72 required for program completion.

Course	Title	Credits

Dissertation Research	9
Sub-Total Credits	**9**
Total Credits	**72**

College and University Faculty Preparation

College and University Faculty Preparation (certificate)

https://gs.howard.edu/academics/graduate-certificate-programs/faculty-preparation-graduate-certificate

Howard's Graduate Certificate in College and University Faculty Preparation meets the professional development needs of current and aspiring faculty interested in developing their knowledge and experience with teaching, learning, and technology in the college and university classroom, in both in-person and online settings.

The certificate program also exposes students to the development of educational frameworks and learning theories, instructional technology, the systematic assessment of student learning, and the creation of accessible, culturally-relevant learning environments. Students will also develop a robust teaching portfolio that will serve them well in their job search and throughout their careers.

Core Courses

Course	Title	Credits
GPFF-403	Technologies in Teaching and Learning	3
GPFF-404	Faculty Roles & Responsibilities	3
GPFF-405	Professional Internship	3
GPFF-407	Diversity in The College Classroom	3
	Sub-Total Credits	**12**

Electives

Choose from options below (3 credits required)

Course	Title	Credits
GPFF-409	How to Be an Effective Mentor	1
GPFF-410	Teaching Through Inquiry Based Learning	1
GPFF-411	The College Classroom	2
GPFF-501	Preparing Future STEM Faculty	3
GPFF-502	Small Group Collaborative Learning	1
GPFF-503	Flipping a New Generation	1
GPFF-504	What Best College Teachers Do	1
GPFF-505	Using Debate to Teach Science	1
GPFF-506	Experimental New Techniques for Active Learning	1
GPFF-507	Understanding and Implementing Scholarly Activities	2
GPFF-509	Basics of Online Teaching and Learning	3
GPFF-601	Culturally Responsive Pedagogy and Assessment	3
GPFF-602	Learning Centered Community College	3
GPFF-603	How to Mentor Graduate Students	3
	Sub-Total Credits	**3**
	Total credits:	**15**

Communication Culture & Media Studies

The Ph.D. in Communication, Culture and Media Studies at Howard's Graduate School welcomes applicants who hold a master's degree (M.A., M.F.A. or M.S.) with backgrounds in the social sciences, humanities, fine arts, and other communication-related fields. Our program highly encourages an interdisciplinary, multicultural approach to investigating communication issues locally, nationally, and globally. Students engage theoretical concepts across diverse fields, including critical media and cultural studies, visual culture, sociology, history, science and technology studies, anthropology, history, and political economy. As a graduate of the program, you'll be prepared to compete successfully for postdoctoral positions, tenure-track teaching appointments at colleges and universities, and senior-level communications consulting or research positions in the public or private sector. Our program emphasizes critical frameworks and mixed methodological approaches to communications studies, including quantitative and qualitative methods, discourse analysis, network analysis, semiotics, critical communication theory, and ethnography. You may choose from three distinct areas of specialization: health communication; media, and cultural studies; and technology, policy, and society. You'll enjoy a highly collegial atmosphere and the close mentorship of faculty notable for their wide-ranging research, including examinations of the role of communication in health promotion, mass communications and public policymaking, strategic communication, culture and media history, the political economy of media, multicultural and mediated communication, and interrelations between global social movements, art, and media.

Communication Culture & Media Studies

https://gs.howard.edu/communication-culture-media-studies-phd

Core Course Credits Required

Course	Title	Credits
CCMS-700	Pro Seminar in Communication Theory and Research	3
CCMS-750	Theory & Research Foundations	3
CCMS-701	Quantitative Research Methodology	3
CCMS-702	Qualitative Research Methodology	3
CCMS-703	Critical Studies Research Methodology	3
CCMS-705	African-American Issues in Communication	3
	Sub-Total Credits	**18**

Advanced Research Credit Required

Course	Title	Credits
CCMS-706	Field Research in Communication	3
CCMS-713	Critical Discourse Analysis	3
CCMS-716	Advanced Quantitative Research	3
CCMS-719	Advanced Qualitative Research	3
CCMS-725	Historical Methods in Communication	3
	Sub-Total Credits	**3**

Media & Cultural Studies Track Credits Required

Course	Title	Credits
CCMS-708	Race, Culture and Social Justice	3
CCMS-710	Communication Theory	3
CCMS-712	Seminar in Social Media, Culture and Communication	3
CCMS-714	Communication & the Black Diaspora	3
CCMS 717	Seminar in Media Psychology	3
CCMS-722	Political Communication & Public Opinion	3
CCMS-725	Historical Methods in Communication	3
CCMS-726	Intercultural Communication	3
CCMS-752	Mass Communication Effects	3
CCMS-753	Mass Communication Policy & Administration	3

CCMS-755	Communication & Popular Culture	3
CCMS-757	International Communication	3
CCMS-773	Gender & Media	3
CCMS-787	Topical Seminar	3
CCMS-790	Independent Study	3
CCMS-791	Independent Study	3
CCMS-792	Independent Study	3
	Sub-Total Credits	**15**

Technology, Policy & Society Track Credits Required

Course	Title	Credits
CCMS-707	Seminar in Gender Issues in Media Management and Ownership	3
CCMS-712	Seminar in Social Media, Culture and Communication	3
CCMS-722	Political Communication & Public Opinion	3
CCMS-724	Communication Leadership & Diversity	3
CCMS-727	Technology in Health Communication	3
CCMS-731	Inequality in the Information Society	3
CCMS-753	Mass Communication Policy & Administration	3
CCMS-759	Internet & Society	3
CCMS-773	Gender & Media	3
CCMS-787	Topical Seminar	3
CCMS-790	Independent Study	3
CCMS-791	Independent Study	3
CCMS-792	Independent Study	3
	Sub-Total Credits	**15**

Health Communication Track Credits Required

Course	Title	Credits
CCMS-709	Community and Public Health	3
CCMS-714	Communication & the Black Diaspora	3
CCMS-718	Health Communication & Culture	3
CCMS-726	Intercultural Communication	3
CCMS-727	Technology in Health Communication	3
CCMS-728	Health Communication in the African American Community	3
CCMS-730	Health Communication	3
CCMS-740	Global Health Communication	3
CCMS-787	Topical Seminar	3
CCMS-790	Independent Study	3
CCMS-791	Independent Study	3
CCMS-792	Independent Study	3
	Sub-Total Credits	**15**

Electives

Electives (Options: Courses under subject code CCMS that are not included in student's selected track courses).

	Sub-Total Credits	**24**

Dissertation

	Title	Credits

Course		
CCMS-770	Dissertation Proposal Writing	3
CCMS-771	Dissertation Proposal Writing	3
CCMS-772	Dissertation Proposal Writing	3
CCMS-796	Dissertation	3
CCMS-797	Dissertation	3
CCMS-798	Dissertation	3
CCMS-799	Dissertation	1
	Sub-Total Credits	**12**
	Total Credits:	**72**

Communication Science and Disorders

In the Master of Science in Speech-Language Pathology program at Howard's Graduate School, you'll make a difference in the lives of children and adults as you help provide speech and language services to patients whose speech, language, or hearing is affected by developmental delays, neurogenic conditions, autism, brain injury, and other factors. You'll hone these skills through supervised clinical practicum experiences in various settings, working alongside clinicians at Howard's Speech and Hearing Clinic or our partner schools, hospitals, early intervention and community clinics, and private practice settings throughout the D.C. Area. Our clinical coordinators will guide you in finding clinical placements that meet your career goals. Our clinical partners recognize the extra level of attention and care our students put into patient care and look forward to working with our students. We offer a traditional two-year M.S. program track for students with a background in speech or hearing sciences and a three-year M.S. program track for students with backgrounds in another field. You may choose four areas of specialization: education, bilingual, medical, or technology. The doctoral curriculum has been recently updated to reflect current theory and research in the field. Ph.D. candidates may choose to complete a traditional dissertation or fulfill the research requirement through three peer-reviewed journal articles.

Howard University is an ideal place to pursue graduate education in speech-language pathology because of our deep commitment to cultural and linguistic diversity, which is infused throughout the curriculum. Our department is nationally recognized for its outstanding faculty, comprehensive clinical training, rigorous academic preparation, and focus on multiculturalism. Alumni of our doctoral program are recognized leaders across academia, research institutions, government, healthcare, and professional organizations, including ASHA.

Communication Science & Disorders (MS)

https://gs.howard.edu/speech-language-pathology-ms

Please note that a graduate degree in Communication Sciences or Speech Pathology is required to pursue the Ph.D. program.

Required Core Course Credits

Course	Title	Credits
COSD-537	Stuttering	3
COSD-563	Phonological Disturbances	3
COSD-559	School Age Language Disorders	3
COSD-560	Early Interventions	2
COSD-561	Neurogenic Language Disorders	3
COSD-531	Clinical Practicum I	3
COSD-567	Neurogenic Speech Disorders	3
COSD-608	Applied Sociolinguistics	3
COSD-612	Traumatic Brain Injury	3
COSD-532	Clinical Practicum II	3
COSD-533	Clinical Practicum III	4

COSD-571	Voice Disorders	2
COSD-691	Research I	3
COSD-534	Clinical Practicum IV	3
COSD-564	Introduction to Augmentative and Alternative Communication (AAC)	2
COSD-570	Dysphagia	3
COSD-594	Research II	3
COSD-535	Clinical Practicum V	3
COSD-611	Praxis Review	1
COSD-586	Private Practice & Admin	2
COSD-566	Language & Literacy	2
COSD-589	AAC Evaluation and Treatment	2
COSD-569	Medical SLP	2
COSD-601	Independent Study	1-2
	Total credits:	**63**

Communication Science & Disorders (PhD)

https://gs.howard.edu/communication-sciences-disorders-phd

Core Courses

Course	Title	Credits
COSD-701	Experimental Research	3
COSD-760	Seminar in Communication Science Disorders	6
COSD-703	Advanced Research III: Qualitative & Mixed Methods	3
COSD-700	Colloquium for Doctoral Studies	1
PSYC-207	Statistics I	3
COSD-780	Topical Reading	3
COSD-709	Contemporary Issues and Policies	3
COSD-795	Research Practicum	3
COSD-702	Advance Research II: Experimental	3
COSD-713	Doctoral Internship: Teaching	3
COSD-714	Doctoral Internship: Clinical Supervision	3
COSD-715	Doctoral Internship: Research	3
COSD-759	Seminar in Cultural-Linguistic	3
COSD-769	Neuro & Cognitive Foundations	3
COSD-781	Social & Professional Ethics	3
COSD-790	Independent Study	3
COSD-783	Dissertation Proposal Writing	3
COSD-718	Journal & Grant Writing	1
	Sub-Total Credits	**53**

Cognate / Electives

Elective Course Options: Courses under subject code COSD 200 and above (9 credits total required)

Sub-Total Credits	**9**

Dissertation

*Note: A maximum of 12 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 54 hours required for program completion.

Course	Title	Credits
COSD-796	Dissertation	12

	Sub-Total Credits	**12**
	Total credits:	**74**

Computer Science

The graduate Computer Science program equips students with comprehensive knowledge of contemporary computer science through training that combines both theory and practice. The program provides intensive preparation in the concepts and techniques related to the design, programming, and application of computing systems. The program requires students to take a broad spectrum of courses, while simultaneously allowing for emphasis in desired areas of specialization. The master degree programs is intended for students who want the opportunity to obtain research expertise in specific research areas. The doctoral degree program is intended for candidates who have the ability to demonstrate an in-depth understanding of the chosen subject matter and make an original contribution to knowledge in their chosen field of specialty.

Cybersecurity (Certificate)

https://gs.howard.edu/cybersecurity-certificate

Course	Title	Credits
CSCI-653	Cybersecurity I	3
CSCI-654	Cybersecurity II	3
CSCI-659	Capstone in Security	3
EECE-676	Cybersecurity for Net CPS/IoT	3
	Sub-Total Credits	**12**

Elective

*Elective Course Options: Choose from the courses listed below (3 credits Total are required)

Course	Title	Credits
CSCI-652	Special Topics in Cybersecurity	3
CSCI-632	Database Security	3
EECE-460	Wireless Communication	3
CSCI-570	Advanced Algorithms	3
	Sub-Total Credits	**3**
	Total credits:	**15**

Computer Science (MSCS)

https://gs.howard.edu/computer-science-mcs

Core Course Credits Required

Course	Title	Credits
CSCI-570	Advanced Algorithms	3
CSCI-551	Advanced Software Engineering I	3
CSCI-510	Computer Architecture	3
CSCI-572	Computability and Complexity	3
CSCI-680	Advanced Operating Systems	3
	Sub-Total Credits	**15**

Elective Course Credits Required

12 hours should be taken from the electives in the group(s) listed below in consultation with your graduate advisor.

Course	Title	Credits

	Software Engineering Elective Group	
	Cybersecurity Elective Group	
	Machine Learning/Artificial Intelligence Elective Group	
	Computer Networks Elective Group	
	Computing Systems Elective Group	
	Computational Systems Elective Group	
	Sub-Total Credits	**12**

Thesis Or MS Project

Choose one:

Course	Title	Credits
CSCI-699	Thesis	3
CSCI-599	MS Project	3
	Sub-Total Credits	**3**
	Total credits:	**30**

Computer Science (PhD)

https://gs.howard.edu/computer-science-phd

Core Course Credits Required

Course	Title	Credits
CSCI-570	Advanced Algorithms	3
CSCI-551	Advanced Software Engineering I	3
CSCI-510	Computer Architecture	3
CSCI-572	Computability and Complexity	3
CSCI-680	Advanced Operating Systems	3
	Sub-Total Credits	**15**

Elective Course Credits Required

45 hours should be taken from the electives in the group(s) listed below in consultation with your graduate advisor.

Course	Title	Credits
	Software Engineering Elective Group	
	Cybersecurity Elective Group	
	Machine Learning/Artificial Intelligence Elective Group	
	Computer Networks Elective Group	
	Computing Systems Elective Group	
	Computational Systems Elective Group	
	Sub-Total Credits	**45**

Dissertation

A maximum of 12 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.

Course	Title	Credits
CSCI-799	Thesis	12
	Sub-Total Credits	**12**

	Total credits:	**72**

Dentistry

The Howard University College of Dentistry offers a four-year program that leads to a doctor of dental surgery degree (DDS).The dental curriculum consists of courses in clinical and basic sciences, practice management, ethics, and clinical experience. The program offers a comprehensive dental education that prepares graduates to enter the workforce as competent, professional and culturally sensitive clinicians.
The College of Dentistry offers postdoctoral dental programs in the fields of Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, General Practice Residency and an Advanced Education in General Dentistry.

These programs meet the educational requirements necessary for certification by the respective specialty boards. The five referenced programs fulfill the accreditation standards for postdoctoral specialty programs in dentistry as established by the Commission on Dental Education Accreditation (CODA) of the American Dental Association.

The level of instruction in the courses included in these programs is comparable to that of graduate dental education courses. Research orientation, electives and research opportunities are included. A Certificate of Proficiency is awarded upon completion of the postdoctoral programs. In addition, certificates of proficiency are awarded to the oral and maxillofacial surgery and the general practice residency residents from Howard University Hospital.

Doctor of Dental Surgery (DDS)

https://dentistry.howard.edu/education/programs-and-admissions/predoctoral-programs/doctor-dental-surgery

Course	Title	Credits
DENT-169	General Anatomic Sciences	8
DENT-170	Biochemistry	4
DENT-198	Micro Anatomy (Histology) Lec/Lab	4
DENT-199	Ethics and Professionalism	1
ORDR-107	Intro to Clinical Dentistry	1
REDE-120	Dental Anatomy Lec/Lab	3
DENT-111	Evidence Based Decision Making I	0.5
DENT-112	Microbiology/Immunology	6
DENT-172	Oral Diagnosis	1
DENT-174	Physiology	7
PERI-117	Introduction to Periodontics Lecture	1
PROS-104	Occlusion Lecture	1
PROS-111	Introduction to Prosthodontics	1
REDE-106	Dental Materials	2.5
REDE-108	Restorative Operative	1
CLDE-129	Clinical Observation I	0.5
CLDE-209	Operative Dentistry Lab	2
PERI-115	Introduction to (Pre-Clinical) Periodontics	1
PROS-264	Fixed Prosthodontics I (Lec)	0.5
REDE-116	Behavioral Dentistry	1
REDE-208	Operative Dentistry Lecture	1
CLDE-102	Clinical Observation II (D1)	0

DENT-173	Pathology	6
DENT-225	Evidence Based Decision Making II	1
DENT-248	Pharmacology I	3
ORDR-215	Oral and Maxillofacial Radiology	2
ORSU-223	Head & Neck Anatomy	2
PEDO-249	Pediatric Dentistry I	1
PROS-215	Removable Prosthodontics Lecture II (D2)	1
PROS-216	Removable Prosthodontics Lecture (D2)	3
PROS-251	Fixed Prosthodontics Lab I (Lab)	0
PROS-250	Fixed Prosthodontics Lec I	0
REDE-234	Dental Practice Readiness Curriculum I	1
REDE-253	Operative Dentistry II (Lab)	3
DENT-202	Pharmacology II	3
CLDE-247	Clinical Observation II (D2)	0
ENDO-217	Endodontics	2
ENDO-219	Endodontics Lab	3
HISP-216	Oral Pathology I	2
ORDR-230	Treatment Planning Lecture	1
ORSU-222	Anesthesiology and Minor Oral Surgery	2
PERI-218	Periodontics I Lecture	1
PROS-205	Fixed Prosthodontics Lab II	3
PROS-206	Fixed Prosthodontics Lecture II	1
PROS-211	Removable Prosthodontics Lecture (D2)	1
PROS-214	Removable Prosthodontics Laboratory (D2)	2
REDE-214	D2 Spring Dental Practice Readiness Curriculum	1
PERI-118	Periodontics Lab	2
CLDE-225	Clinical Observation (D2)	2.5
CLDE-236	Comprehensive Treatment Planning Lecture	1
CLDE-325	General Dentistry I	1
PROS-331	Preclinical Implant Lecture	1
PROS-332	Preclinical Implant Laboratory	1
CLDE-239	Clinical Rotation (D2)	0
CLDE-241	Clinical Restorative (D2)	0
CLDE-242	Clinical Periodontics (D2)	0
CLDE-243	Clinical Endodontics (D2)	0
CLDE-244	Clinical Prosthodontics (D2)	0
ORDR-262	Summer Radiology Tech (D2)	1
PEDI-245	Pre-Clinical Ortho-Pediatric Dentistry	3
PERI-260	Periodontics Lab I & II (D2)	1
PROS-262	Removable Prosthodontics II	1
CLDE-367	Clinical Rotation (D3)	0
CLDE-368	Clinical Restorative (D3)	0
CLDE-369	Clinical Periodontics (D3)	0
CLDE-370	Clinical Endodontics (D3)	0
CLDE-371	Clinical Prosthodontics (D3)	0
CODE-315	Health Care Ethics	2
HISP-322	Oral Pathology II	1
ORDR-309	Principles of Medicine	2
ORSU-322	Anesthesia and Minor Oral Surgery II	1
ORTH-316	Growth & Development/Orthodontic Lecture	2

PERI-318	Periodontics II	1
REDE-308	Restorative Dentistry	1
REDE-334	Dental Practice Readiness Curriculum III	1
CLDE-300	General Dentistry II	2
CLDE-343	Clinical Rotation (D3)	4
CLDE-348	Clinical Restorative (D3)	2
CLDE-344	Clinical Prosthodontics (D3)	3
CLDE-345	Clinical Periodontics (D3)	2
CLDE-346	Clinical Endodontics (D3)	2
CODE-313	Public Health	3
ENDO-400	Advanced Topics in Endodontics	1
HISP-324	Oral Pathology III	1
HISP-327	Intro to Clinical and Translational Research	3
REDE-347	D3 Spring Dental Practice Readiness IV	1
CLDE-360	Clinical Rotation (D3)	0
CLDE-361	Clinical Restorative (D3)	0
CLDE-362	Clinical Endodontics (D3)	0
CLDE-363	Clinical Periodontics (D3)	0
CLDE-364	Clinical Prosthodontics (D3)	0
ORTH-417	Orthodontics	1
PROS-367	Clinical Implant Lecture/Laboratory	2
PROS-441	Advanced Prosthodontic Concepts	1
ORSU-422	Major Oral Surgery II	0-5
DENT-176	Case Presentation	2
CLDE-475	Clinical Rotation (D4)	0
CLDE-477	Clinical Restorative (D4)	0
CLDE-478	Clinical Periodontics (D4)	0
CLDE-479	Clinical Endodontics (D4)	0
CLDE-480	Clinical Prosthodontics (D4)	0
ORSU-422	Major Oral Surgery II	0-5
PEDO-481	Pediatric Dentistry II	1
PERI-415	Periodontics III	1
CLDE-446	Clinical Rotation (D4)	4
CLDE-460	Clinical Restorative (D4)	2
CLDE-461	Clinical Prosthodontics (D4)	2
CLDE-462	Clinical Periodontics (D4)	2
CLDE-463	Clinical Endodontics (D4)	2
CLDE-464	CDCA Review	0
	Total Credits:	**167.5**

Advanced General Dentistry (residency certificate)

https://dentistry.howard.edu/education/programs-and-admissions/postdoctoral-programs/advance-education-general-dentistry

Course	Title	Credits
PGDP-203	Physical Diagnosis	3
PGDP-600	General Dentistry Clinic	3
PGDP-604	General Dentistry Conference	1.5
PGDP-626	Anesthesiology	3

PGDP-631	OMS Problem Case Seminar	1.5
PGDP-655	Principles of Epidemiology & Design	1
PGDP-614	Histopathology	2
PGDP-630	Advanced Oral Surgery Lecture	1
PGDP-637	Advanced Radiographic Interpretation & Diagnosis	1
PGDP-750	Dental Education	1
PGDP-758	Internal Medicine	1
PGDP-850	Pharmacotherapeutics	1
PGDP-601	General Dentistry Clinic	1-8
	Total credits:	**22**

Orthodontics (residency certificate)

https://dentistry.howard.edu/education/programs-and-admissions/postdoctoral-programs/orthodontics

Item #	Title	Credits
PGDP-618	Orthodontic Laboratory	8.5
PGDP-619	Orthodontic Theory I	3
PGDP-628	Roentgenology and Cephalometrics	3
PGDP-761	Clinical Introduction	2
PGDP-656	Methodology in Research I	5
PGDP-725	Pediatric Dentistry Seminar	2
PGDP-721	Orthodontic Case Analysis Seminar	1-4
PGDP-733	Orthodontic Clinic	7
PGDP-624	Orthodontic Clinic	6.5
PGDP-720	Orthodontic Case Analysis Seminar	2
PGDP-726	Theoretical Mechanics	2
PGDP-620	Orthodontic Theory II	2
PGDP-629	Advanced Cephalometrics	2
PGDP-650	Growth and Development I	2
PGDP-778	Periodontic-Orthodontic Seminar	2
PGDP-621	Orthodontic Theory III	2
PGDP-624	Orthodontic Clinic	6.5
PGDP-651	Growth and Development	2
PGDP-730	Clinical TMD	1
PGDP-758	Internal Medicine	1
PGDP-766	Mixed Dentition Seminar	1
PGDP-779	Craniofacial Genetics	1
PGDP-630	Adv. Oral & Maxillofacial Surgery Lecture	1
PGDP-703	Pediatrics	1
PGDP-656	Methodology in Research I	5
PGDP-800	Research Seminar	2
PGDP-734	Orthodontic Clinic (Advisory Course)	0
PGDP-721	Orthodontic Case Analysis Seminar	1-4
PGDP-724	Orthodontic Practice Organization	0
PGDP-801	ABO Literature Review	2
PGDP-770	Orthodontic Clinic	7
PGDP-771	Manuscript Preparation	4
PGDP-721	Orthodontic Case Analysis Seminar	1-4

PGDP-734	Orthodontic Clinic (Advisory Course)	0
PGDP-721	Orthodontic Case Analysis Seminar	1-4
PGDP-724	Orthodontic Practice Organization	0
PGDP-767	Comprehensive Surgery Orthodontic Seminar	2
PGDP-760	Orthodontic Literature Review	3
PGDP-657	Methodology in Research II	5
PGDP-614	Histopathology	2
PGDP-735	Orthodontic Clinic	6
PGDP-750	Dental Education	1
PGDP-768	Orthodontic Seminar	2
	Total credits:	**110.5**

Note: PGDP-624 can be taken for a maximum of 13 credits towards degree/certificate.

Pediatric Dentistry (residency certificate)

https://dentistry.howard.edu/education/programs/postdoctoral-programs/pediatric-dentistry

Course	Title	Credits
PGDP-619	Orthodontic Theory	3
PGDP-628	Roentgenology & Cephalometrics	3
PGDP-203	Physical Diagnosis	1.5
PGDP-626	Anesthesiology	3
PGDP-642	Pediatric Dentistry Seminar	1.5
PGDP-645	Pediatric Dentistry Lab	1
PGDP-614	Histopathology	2
PGDP-630	Advanced Oral Surgery Lecture	1
PGDP-637	Advanced Radiographic Interpretation & Diagnosis	1
PGDP-655	Principles of Epidemiology & Design	1
PGDP-640	Pediatric Dentistry Clinic/Hospital	7
PGDP-641	Pediatric Dentistry Clinic/Hospital	7
PGDP-643	Pediatric Dentistry Literature Review	2
PGDP-725	Ortho/Pedo Seminar	2
PGDP-656	Methodology in Research	5
PGDP-650	Growth & Development	2
PGDP-651	Growth & Development	2
PGDP-758	Internal Medicine	1
PGDP-766	Mixed Dentition Seminar	1
PGDP-779	Craniofacial Genetics	1
PGDP-800	Statistics Seminar	2
PGDP-850	Pharmacotherapeutics	1
PGDP-610	Head & Neck Anatomy & Anthropology	2
PGDP-703	Pediatrics	1
PGDP-780	Pediatric Dentistry Clinical/Hospital	7
PGDP-752	Pediatric Dentistry Clinical/Hospital	7
PGDP-700	Pediatric Dentistry Practice Organization	1
PGDP-778	Periodontic-Orthodontic Seminar	2
PGDP-744	Pediatric Dentistry Literature Review	3
PGDP-657	Methodology in Research II	0

PGDP-741	Pediatric Dentistry Clinic/Hospital	7
PGDP-745	Pediatric Dentistry Case Analysis Seminar	3
PGDP-750	Dental Education	1
	Total Credits:	**99**

Economics

The Department of Economics at Howard University provides students with a sound foundation in econo mic
theory and its applications. Coupled with this is a concerted effort to produce students who are compete nt in the use of the quantitative tools in analysis. The economics program provides a unique
opportunity to gain experience and employment in research and policy making institutions in Washington. The Economics
Department offers graduate programs leading to the Master of Arts and Doctor of Philosophy degrees. B oth programs offer specializations in Growth and Development,
International, Urban, and Labor. Each of these
fields of study allows the student to select a cluster of complementary courses drawn from such offerings as econometrics, economic theory, and international economics.

Economics (MA)

https://gs.howard.edu/economics-ma

Course	Title	Credits
ECOG-200	Microeconomic Theory I	3
ECOG-202	Macroeconomic Theory I	3
ECOG-204	History of Economic Analysis	3
ECOG-207	Workshop in Economic Research	3
ECOG-210	Advanced Statistics	3
ECOG-211	Econometrics I	3
ECOG-213	Mathematics for Economists	3
	Sub-Total Credits	**21**

Elective Course

Options: Courses under subject code ECOG

Course	Title	Credits
	ECOG Elective	9
	Sub-Total Credits	**9**
	Total credits	**30**

Economics (PhD)

https://gs.howard.edu/economics-phd

Course	Title	Credits
ECOG-200	Microeconomic Theory I	3
ECOG-201	Microeconomic Theory II	3
ECOG-202	Macroeconomic Theory I	3

ECOG-203	Macroeconomic Theory II	3
ECOG-204	History of Economic Analysis	3
ECOG-205	Microeconomic Theory III	3
ECOG-206	Macroeconomic Theory III	3
ECOG-207	Workshop in Economic Research	3
ECOG-211	Econometrics I	3
ECOG-212	Econometrics II	3
ECOG-213	Mathematics for Economists	3
ECOG-216	Advanced Topics in Econometrics	3
	Sub-Total Credits	**36**

Concentration Course Options:

Choose from options below (9 credits Total)

Course	Title	Credits
ECOG-220	Growth and Development Economics I	3
ECOG-221	Growth and Development Economics II	3
ECOG-228	Growth and Development Economics III	3
ECOG-230	Urban Economics I	3
ECOG-231	Urban Economics II	3
ECOG-237	Urban Economics III	3
ECOG-244	International Economics I	3
ECOG-249	International Economics II	3
ECOG-245	International Economics III	3
ECOG-261	Labor Economics I	3
ECOG-262	Labor Economics II	3
ECOG-263	Labor Economics III	3
	Sub-Total Credits	**9**

Elective Course

Options: Any Graduate level course 200

	Sub-Total Credits	**15**

PhD Dissertation

*Note: A maximum of 9 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.

Course	Title	Credits
ECOG-400-ECOG 405	PhD Dissertation	12
	Sub-Total Credits	**12**
	Total Credits	**72**

Educational Leadership & Policy Studies

The Graduate Programs in Educational Leadership and Policy Studies are designed to prepare the next generation of School Administrators and leaders of Higher Education.

The Online M.Ed. in Educational Leadership and Policy Studies (ELPS) program is designed for individuals passionate about driving change in urban education. Our specialized program offers two distinct tracks: one leading to licensure for those pursuing leadership roles in schools, and another focused on shaping and influencing education policy. This advanced M.Ed.

degree is tailored for educators seeking to deepen their expertise in the K-12 field and make a lasting impact on society. It is 100% online, with synchronous and asynchronous components.

The Educational Administration Guided Leadership Experiences (EAGLE) Program is a doctoral program leading to the Ed.D. degree. The program reflects the School of Education's commitment to urban and diverse school systems through course content, faculty composition and clinical experiences. The EAGLE Program is specifically designed for practicing K-12 administrators who aspire to the position of superintendent of schools or some other senior-level position.

The Ph.D. program in Higher Education Leadership and Policy Studies (HELPS) at Howard's Graduate School prepares graduates for rewarding leadership and management careers in higher education. Our Ph.D. program also prepares graduates to become policy advocates for Minority Serving Institutions (MSIs). Our program emphasizes theoretical, conceptual, and practical foundations in university fundraising, board and community relations, accreditation, diversity, access, education equity, contemporary issues in higher education, and ethics in decision-making.

Each of our programs is designed to produce individuals who: possess the fundamental knowledge, skills, and attitudes relative to all phases of the organization, management, and leadership of school systems; are familiar with the forces and influences which impinge on the process of education; can use with intelligence and discrimination the findings of research and evaluation; and are sensitive to the interrelationship between school systems and the communities they serve.

Educational Leadership and Policy Studies (online) (MEd)

https://education.howard.edu/academics/department-educational-leadership-and-policy-studies/med-program-educational-leadership

Course Courses

Course	Title	Credits
HUDE-200	Introduction to Research	3
ELPS-384	Practicum in School Administration	3
ELPS-252	History of Black Education	3
ELPS-422	Seminar in Educational Policy	3
ELPS-382	Multicultural Education	3
ELPS-201	Human Development	3
ELPS-455	Ethics in Decision Making	3
ELPS-284	Public School Education	3
	Electives	12
	Total Credits	**36**

Educational Leadership and Policy Studies (EdD)

https://education.howard.edu/academics/department-educational-leadership-and-policy-studies/doctor-education-education

Note: A maximum of 6 internship credits may be taken per semester. A maximum of 6 credits may be counted toward the program completion requirement.

Note: A maximum of 6 Dissertation Research credits may be taken per semester. In addition, up to 6 Dissertation Research credits may be counted toward the credits required for program completion.

Required Courses

Course	Title	Credits
ELPS-435	Human Resource Management	3
ELPS-514	Organizational Change in Education	3
ELPS-517	Workshop on Leadership Development	3
ELPS-520	Financial Management in School Administration	3
ELPS-521	Educational Administration and Governance	3
ELPS-523	Research in Educational Leadership & Policy Studies	3
HUDE-400	Intermediate Statistics	3
ELPS-422	Seminar in Educational Policy	3
ELPS-455	Ethics in Decision Making	3
EDAP-518	Politics of Education	3
ELPS-519	Information Technology in School Management	3
	ELPS-524/HUDE-501	3
ELPS-525	Case Law in Public School Administration	3
ELPS-584	Internship	6
ELPS-599	Research Preparation Seminar	3
ELPS-600	Dissertation Research	6
	Sub-Total Credits	**54**

Electives (Cognate)

Options: Courses under subject codes ELPS, EDAP, and HUDE level 200 and above.

	Sub-Total Credits	**12**
	Total Credits	**66**

Higher Education Leadership and Policy Studies (PhD)

https://gs.howard.edu/higher-education-leadership-and-policy-studies-phd

Core Courses

Item #	Title	Credits
ELPS-604	History of Higher Education	3
ELPS-608	Law in Higher Education	3
ELPS-611	Board and Community Relations	3
ELPS-605	Higher Education Policy	3
ELPS-603	The College and University President or Chancellor	3
ELPS-602	Minority Serving Institutions	3
ELPS-606	Higher Education Administration, Leadership, and Governance	3
ELPS-607	Diversity and Multiculturalism in Higher Education	3
ELPS-610	Financial Management in Higher Education	3
ELPS-517	Workshop on Leadership Development	3
ELPS-514	Organizational Change in Education	3
HUDE-400	Intermediate Statistics	3
ELPS-524	Intro to Qualitative Research	3
HUDE-500	Advanced Statistics	3
ELPS-609	Advanced Qualitative Research	3
HUDE-501	Design & Analysis of Research Projects	3
ELPS-612	Contemporary Issues in Student Affairs	3
ELPS-613	Fundraising in Higher Education	3
ELPS-614	Institutional Research	3

ELPS-616	Black Women in Higher Education Leadership	3
ELPS-455	Ethics in Decision Making	3
ELPS-615	Research Practicum	3
ELPS-599	Research Preparation Seminar	3
ELPS-600	Dissertation Research	6
	Total credits:	**72**

Electrical Engineering

The Ph.D. in Electrical and Computer Engineering at Howard's Graduate School is designed for students who desire a broad foundation of engineering knowledge and want to participate in high-impact research to solve complex engineering problems. Our program welcomes applicants with a background in electrical, computer science, mathematics, or engineering science-related fields. Our graduates work in leading-edge businesses in a variety of technology sectors. Others land postdoctoral positions, tenure-track faculty appointments, or senior-level research positions in government. You may choose from four distinct areas of specialization in applied and computational electromagnetics, communications and signal processing, power systems and control engineering, and material science and solid-state electronics. Research activities in the Department of Electrical and Computer Engineering are supported by three interdisciplinary research centers and two world-class research laboratories. As a student in Washington, D.C., you'll have access to a robust high-tech research community and opportunities to collaborate with industry and government agencies on research. In addition, you'll enjoy a highly collegial atmosphere and work closely with a faculty research advisor committed to your professional development. Our graduate faculty is also notable for its wide-ranging expertise and serves as referees for related scientific journals and consultants to governmental, private, and public sector agencies, including the National Science Foundation (NSF), the Department of Homeland Security (DHS), Microsoft Corporation, and Intel Corporation.

Electrical Engineering and Computer Engineering (PhD)

https://gs.howard.edu/electrical-engineering-phd

Core Courses

Course	Title	Credits
EECE-501	Graduate Seminar	0
EECE-502	Engineering Analysis A	3
EECE-503	Engineering Analysis B	3
EECE-541	Probability and Random Variables	3
EECE-604	Optimization Theory	3
	Sub-Total Credits	**12**

Electives

Options: Courses under subject code EECE at level 500 and above in various areas of specialization in consultation with the student's advisor and in accordance with individual needs and interests.

Course	Title	Credits
	Electrical Engineering Elective	
	Sub-Total Credits	**48**

Dissertation

Note: Three to six credit hours of EECE-699 may be awarded per semester for this course. A maximum of 12 credit hours may be counted towards the degree requirements.

Course	Title	Credits

EECE-699	Dissertation	12
	Sub-Total Credits	**12**
	Total credits:	**72**

English

The Ph.D. in English at Howard's Graduate School aims to produce first-rate scholars and critics well-trained in historical research, theoretical inquiry, and criticism across a broad range of literary and cultural studies. Our program prepares graduates to compete successfully for postdoctoral positions, tenure-track teaching appointments at colleges and universities, and non-profit and private sector careers. Our curriculum emphasizes critical frameworks addressing fundamental literary issues such as genre and period formation, authorial techniques, rhetorical strategies, thematic motifs, and critical theories. Attention to these issues is intended to foster critical reading, research, and historical analysis skills required to conduct solid and innovative scholarly research in specialized fields. As a doctoral student in English, you may specialize in the various periods of African American, American, British, or Caribbean literature, comparative studies, or literary theory and criticism.

English (PhD)

https://gs.howard.edu/english-phd

Note: Students must take **three (3)** British literature courses, one from each of the three periods listed below. Also required are **one (1)** study course in the student's major area (3 credits), **one (1)** elective in the student's major area (3 credits) and **five (5)** additional electives (15 credits). To complete the required 72 cr edit hours to graduate, students must also take **6 credits** of Research Seminars (or additional electives) and **12 credits** of dissertation hours.

**Note: The same literature courses noted as I & II must be taken in separate semesters.

Type: PhD

Course	Title	Credits
ENGG-200	Scholarship: Research Methods	3
ENGG-201	Scholarship: Critical Methods	3
	Sub-Total Credits	**6**

Reading Courses

Early Modern British Literature

Course	Title	Credits
ENGG-211	English Renaissance Literature I	3
ENGG-212	English Renaissance Literature II	3
ENGG-220	Restoration Literature I	3
ENGG-221	Restoration Literature II	3
	Sub-Total Credits	**3**

Reading Courses

18th & 19th Century British Literature

Course	Title	Credits
ENGG-223	18th- & 19th-Century British Literature I	3
ENGG-224	18th- & 19th-Century British Literature II	3
	Sub-Total Credits	**3**

Reading Courses

20th & 21st Century British Literature

Course	Title	Credits
ENGG-228	20th- & 21st-Century British Literature I	3
ENGG-229	20th- & 21st-Century British Literature II	3
	Sub-Total Credits	**3**

Reading Courses

American Literature

Course	Title	Credits
ENGG-233	American Literature I	3
ENGG-234	American Literature II	3
	Sub-Total Credits	**6**

Reading Courses

African American Literature

Course	Title	Credits
ENGG-248	African American Literature I	3
ENGG-249	African American Literature II	3
	Sub-Total Credits	**6**

Reading Courses

Caribbean Literature

Course	Title	Credits
ENGG-231	Caribbean Literature I	3
ENGG-232	Caribbean Literature II	3
	Sub-Total Credits	**6**

Study Courses

Course	Title	Credits
ENGG-205	Studies in Linguistics	3
ENGG-215	Studies in English Renaissance Literature	3
ENGG-222	Studies in Restoration and 18th-Century Literature	3
ENGG-225	Studies in English Romantic Literature	3
ENGG-227	Studies in Victorian Literature	3
	Sub-Total Credits	**3**

Electives

Course	Title	Credits
ENGG-204	Linguistics	3
ENGG-206	Special Topics: Rhetoric	3
ENGG-207	Special Topics in English	3
ENGG-208	Theoretical Conversations	3
ENGG-209	Special Topics	3
ENGG-210	Studies in Afr Amer Narrative	3
ENGG-213	Shakespeare	3
ENGG-214	Renaissance English Lit II	3
ENGG-246	Literary Theory I & II	3

ENGG-247	Literary Theory & Criticism II	3
ENGG-248	African American Literature I	3
ENGG-270	History of English	3
ENGG-271	Major African American Authors	3
ENGG-272	Harlem and Chicago Renaissance(s)	3
ENGG-273	The Black Arts Movement	3
ENGG-274	Black Women Writers	3
ENGG-299	Teaching of English	3
	Sub-Total Credits	**18**

Research Seminars

To complete the required 72 credit hours to graduate, students must also take 6 credits of Research Seminars (or additional electives).

	Sub-Total Credits	**6**

Dissertation

To complete the required 72 credit hours to graduate, students must take 12 credits of dissertation hours.

	Sub-Total Credits	**12**
	Total credits:	**72**

Film

For over forty years, Howard University's MFA Film Program has played a vital role in training the next generation of independent filmmakers and promoting diverse storytelling.

The MFA Film prepares students for today's evolving media landscape through a combination of core and specialized courses. Co-founded by acclaimed Ethiopian-born filmmaker Haile Gerima, the MFA Film Program offers advanced instruction in screenwriting, film production, editing, sound design, cinematography, producing, and directing, culminating in a Master of Fine Arts degree in film.

Master of Fine Arts- Film (MFA)

https://communications.howard.edu/academics/media-journalism-and-film/mfa-film

Course	Title	Credits
RTFG-500	Film History	3
RTFG-501	Scriptwriting I	3
RTFG-502	Film Editing	3
RTFG-503	Cinematography II	3
RTFG-504	Film Analysis	3
RTFG-601	Film Criticism and Theory	3
RTFG-602	Cinematography III	6
RTFG-603	Film Directing	3
RTFG-604	Cinema Sound	3
RTFG-700	African American Cinema	3
RTFG-701	Scriptwriting III	3
RTFG-702	Film Practicum	3
RTFG-703	Advanced Film Directing	6
RTFG-800	African Cinema	3
RTFG-801	Production / Distribution / Exhibit Seminar	3
RTFG-802	Thesis	6

RTFG-803	Independent Study	3
	Total Credits:	**60**

Finance (online)

The Master of Science in Finance (MSF) Degree Program will equip students with the knowledge and skills necessary to succeed in business and advance in careers in Finance.
In this intensive specialized graduate program, students learn to analyze and solve complex finance and investment problems and practical issues in the areas of corporate finance, financial market and institutions, financial modeling, investment analysis, portfolio management or derivatives and risk management, financial engineering, and financial policy and strategy. This program is intended for graduate students interested in careers in corporate finance, asset management, and financial markets and institutions.

Master of Science in Finance (MSF)

https://business.howard.edu/graduate/master-finance

Course	Title	Credits
OFIN-502	Financial Markets & Institutions	3
OACC-500	Financial Accounting	3
OFIN-501	Advanced Corporate Finance	3
OFIN-503	Investments & Portfolio Analysis	3
OFIN-505	Financial Modeling	3
OFIN-506	Financial Engineering	3
OFIN-508	Seminar in Corporate Finance	3
OFIN-590	Financial Policy & Strategy	3
OECN-500	Economics for Global Business	3
OIST-501	Statistics & Business Analytics	3
	Total credits:	**30**

Health Administration

The Howard University Master of Health Administration (MHA) is an advanced-level, 100% online program designed to equip culturally competent healthcare leaders to advance their careers and have a positive impact on the healthcare workforce by decreasing health disparities and promoting health equity. Graduates will be able to lead diverse people, teams, and organizations and use evidence-based practices to improve decision-making, as well as organizational culture and performance.

Health Administration (online) (MHA)

https://cnahs.howard.edu/departments/master-health-administration-mha-program

Course	Title	Credits
MHAG-500	Healthcare Human Relations Management	3
MHAG-501	Quantitative Methods in HCM	3
MHAG-502	Strategic Marketing & Communications in Health Care Organizations	3

MHAG-503	Population Health	3
MHAG-504	Information Systems for HCM	3
MHAG-505	Health Care Law & Ethics	3
MHAG-600	Organizational Behavior and Change Management in Health Care	3
MHAG-601	Executive Leadership in Health Care	3
MHAG-602	Health Care Financial Management and Analysis	3
MHAG-603	Performance Improvement and Quality Management in Health Care	3
MHAG-604	Interprofessional Management and Diversity in Health Care	3
MHAG-605	Health Care Administration Capstone	3
	Total Credits:	**36**

Notes: At least 30 credits must be successfully completed before enrolling in MHAG 605

History

The History Department's graduate program reflects the department's concurrent commitment to an accurate reconstructio n and interpretation of the collective experiences of the world's people and a special emphasis on African America, Africa, and the African Diaspora. These concordant concerns are in keeping with Howard University's unique character and role as a major American university with a predominantly Black constituency.

The program is designed to allow for both diversity and specialization and is sufficiently flexible to permit the student to have a significant role in fashioning his/her specific degree requirements. While students may major or minor in African, Latin American/Caribbean, and United States history, they may minor in European, and they may choose one of their minors from another discipline. They may also create a program, which is a combination of courses and research projects that will enable them to specialize in African American, African Diaspora, Public, comparative, and women's history. The excellent research and educational facilities in the Washington, D. C. area –including the Library of Congress, the National Archives and the Smithsonian Institution – provide an added dimension to the program's value and make its high objectives more readily attainable.

History (MA)

https://gs.howard.edu/history-ma

Core Courses

Choose 15 credits from the options below:

Course	Title	Credits
HIST-200	Historiography	3
HIST-318	Readings in US Foreign Relations to WWI	3
HIST-319	Readings in US Foreign Relations since 1914	3
HIST-324	Readings in Afro-American History I	3
HIST-325	Readings in Afro-American History II	3
HIST-326	Readings in Selected Periods and Topics in US History I	3
HIST-327	Readings in Selected Periods and Topics in US History II	3
HIST-328	District of Columbia History	3
	Sub-Total Credits	**15**

*Students are required to take HIST-200.

Seminar Courses

Choose 3 credits from the options below:

Course	Title	Credits
HIST-409	Seminar in US History to 1877	3
HIST-410	Seminar in US History since 1877	3

HIST-412	Seminar in US History	3
HIST-413	Sem in Afro-American History	3
HIST-414	Sem in Afro-American History	3
HIST-415	Seminar in Afro-Amer History since 1877	3
HIST-416	Seminar in Afro-Amer History to 1877	3
	Sub-Total Credits	**3**

Note: Non-thesis students are to complete 6 credit hours from the list above.

Choose 6 credits from the options below:

Course	Title	Credits
HIST-211	US Foreign Relations to 1914	3
HIST-212	US Foreign Relations since 1914	3
HIST-219	US South to 1877	3
HIST-220	US South since 1877	3
HIST-221	Colonial America	3
HIST-223	Jacksonian Era, Reform, and Sectionalism	3
HIST-224	Civil War and Reconstruction	3
HIST-226	US since World War I	3
HIST-247	African American Women in US History	3
HIST-309	Problems in US History to 1865	3
HIST-310	Problems in US History since 1865	3
HIST-312	Afro-American Social Institutions and Culture	3
	Sub-Total Credits	**6**

Note: Non-thesis students are to complete 9 credit hours from the list above.

Thesis

Note: A maximum of 3 thesis credits may be taken per semester. In addition, a maximum of 6 thesis c redits may be counted toward the required credits for program completion.

Course	Title	Credits
HIST-300	MA Thesis Writing	3
HIST-301	MA Thesis Writing	3
	Sub-Total Credits	**6**
	Total credits:	**30**

History (PhD)

https://gs.howard.edu/history-phd

Foundational Course

Course	Title	Credits
HIST-200	Historiography	3
	Sub-Total Credits	**3**

Major/Minor Field Readings Credits

Choose 6 credits for Major Field and 6 credits for Minor Field from the options below - 12 required credit h ours (total):

Course	Title	Credits

HIST-318	Readings in US Foreign Relations to WWI	3
HIST-319	Readings in US Foreign Relations since 1914	3
HIST-324	Readings in Afro-American History I	3
HIST-325	Readings in Afro-American History II	3
HIST-326	Readings in Selected Periods and Topics in US History I	3
HIST-327	Readings in Selected Periods and Topics in US History II	3
HIST-328	District of Columbia History	3
	Sub-Total Credits	**12**

Directed Reading in the Major Field Required Credits

Choose 12 credits from the options listed below - 12 required credit hours (total):

Course	Title	Credits
HIST-203	Directed Reading in the Major Field	3
HIST-204	Directed Reading in the Major Field	3
HIST-381	Directed Reading in the Major Field	3
HIST-390	Directed Reading in the Major Field	3
HIST-391	Directed Reading in the Major Field	3
HIST-420	Directed Reading in the Major Field	3
	Sub-Total Credits	**12**

Independent Study/Research Credits Required (Any Combination)

Choose 15 credits from the options below (any combination):

Course	Title	Credits
HIST-510	Independent Research (Ph.D. Cand)	3
HIST-511	Independent Research (Ph.D. Cand)	3
HIST-512	Independent Research (Ph.D. Cand)	1
HIST-513	Independent Study (Ph.D. Cand)	3
HIST-514	Independent Study (Ph.D. Cand)	3
HIST-515	Independent Study (Ph.D. Cand)	9
	Sub-Total Credits	**15**

Seminar Credits Required

Choose 6 credits from the options below - 6 required credit hours (total):

Course	Title	Credits
HIST-409	Seminar in US History to 1877	3
HIST-410	Seminar in US History	3
HIST-412	Seminar in US History	3
HIST-413	Seminar in Afro-American History	3
HIST-414	Seminar in Afro-American History	3
HIST-415	Seminar in Afro-American History	3
HIST-416	Seminar in Afro-American History to 1877	3
	Sub-Total Credits	**6**

Department Electives

Choose 15 credits from the options below - 15 required credit hours (total):

Course	Title	Credits
HIST-174	Women in American Society to 1890	3
HIST-175	Women in American Society since 1890	3
HIST-176	Afro-American History to the Civil War	3

HIST-177	Afro-American History since the Civil War	3
HIST-211	US Foreign Relations to 1914	3
HIST-212	US Foreign Relations since 1914	3
HIST-219	US South to 1877	3
HIST-220	US South since 1877	3
HIST-221	Colonial America	3
HIST-223	Jacksonian Era, Reform, and Sectionalism	3
HIST-224	Civil War and Reconstruction	3
HIST-226	US since World War I	3
HIST-247	African American Women in US History	3
HIST-309	Problems in US History to 1865	3
HIST-310	Problems in US History since 1865	3
HIST-312	Afro-American Social Institutions and Culture	3
	Sub-Total Credits	**15**

Non-Department Electives

Options: Courses 200 and above (3 credits total)

Sub-Total Credits	**3**

Dissertation

*Note: PhD Dissertation- Three credit hours may be awarded per semester for this course. A maximum o f 6 credit hours may be counted toward the required credits for program completion. Only one dissertation course can be taken per semester

Course	Title	Credits
HIST-500	PhD Dissertation	3
HIST-501	PhD Dissertation	3
	Sub-Total Credits	**6**
	Total credits:	**72**

Human Development and Psychoeducational Studies

The Doctor of Philosophy (Ph.D.) Degree in Counseling Psychology program, is an APA-accredited program designed to train professional psychologists in the Scientist-Practitioner model consistent with APA-accreditation guidelines. The Program embodies a balanced training experience in the science of psychology, theoretical foundations, application of therapeutic skills, and research, and thus prepares skilled counseling psychologists to function successfully in a variety of professional settings with diverse populations. The mission of the Program is to educate and train health service counseling psychology students using a Scientist-Practitioner philosophy who are committed to working with underserved populations. We are committed to recruiting and retaining students and faculty from diverse backgrounds who seek to create and apply evidence-based practices and interventions within local, national, and international communities.

The Doctor of Philosophy (Ph.D.) Degree in Educational Psychology emphasizes the practical application of learning and development theories to the study of human behavior. Students majoring in educational psychology pursue an empirically based interdisciplinary program of study. The primary objective of the program is to produce psychologists who are capable of performing scholarly research and evaluation studies and practitioners who are skillful in applying principles of psychology to the resolution of developmental and educational problems. In particular, graduates are expected to think critically; analyze and solve problems; make ethical decisions; apply knowledge by linking theory with practice; understand and use technology; know and understand self, history, and community; assume leadership roles in the global community; and demonstrate knowledge, sensitivity, and skill in working with special needs and diverse populations.

The Doctor of Philosophy (Ph.D.) Degree in School Psychology is designed to prepare competent graduate candidates in the study and practice of professional psychology with specific emphasis on cultural competence. The program espouses a scientist-practitioner model of training along with a behavioral-ecological approach for service delivery. In this regard, the program views research and practice as interconnected, reciprocal processes; advocating that psychologists must attend to multiple human systems, considering not only the child's biology and personal traits, but also, and perhaps more importantly, the child's ecology and culture (i.e., home, school, community, and historical contexts).

Counseling Psychology (PhD)

https://gs.howard.edu/counseling-psychology-phd

Course	Title	Credits
HUDE-603	Theories of Personality	3
HUDE-605	Clinical Interviewing	3
HUDE-340	Seminar in Counseling Psychology	3
HUDE-201	Human Development	3
HUDE 322	Individual Assessment of Cognitive Ability I	3
HUDE-442	Research Seminar in Counseling Psychology	1
HUDE-446	Professional Ethics & Legal Issues in Psychology	3
HUDE-400	Intermediate Statistics	3
HUDE-351	Advanced Psychopathology	3
HUDE-344	Practicum	1
HUDE-500	Advanced Statistics	3
HUDE-455	Issues & Trends in Measurement Theory	3
HUDE-228	Personality Assessment	3
HUDE-600	Psychodynamic Interventions and Evidence-based Therapies	2
HUDE-447	Multiculturalism and Diversity in Counseling & Psychology	3
HUDE-516	Cognitive Affective Basis of Behavior	3
HUDE-428	Personality Assessment II	3
HUDE-602	Cognitive Behavioral Interventional and Evidence-based Therapies	2
HUDE-502	Advanced Topics in Statistics & Multivariate Analysis	3
HUDE-455	Issues & Trends in Measurement Theory	3
HUDE-444	Group Processes	3
HUDE-601	Evidence-based Systems Interventions and Therapies	2
HUDE-490	Externship in Counseling Psychology	3
PSYC-271	Psychopharmacology	3
HUDE-501	Design & Analysis of Research Projects	3
PSYC-222	Social Psychology of Individual	2
HUDE-440	Vocational Theory	3
PSYC-233	Neuropsychology	3
HUDE-604	Professional Roles	3
HUDE-540	Supervision / Consultation	3
HUDE-450	African / Black Psychology	3
	Sub-Total Credits 85	

HUDE-509: Dissertation Research

Note: Three to six credit hours may be awarded per semester for each dissertation research course. A maximum of six (6) dissertation research credit hours may be counted towards degree completion.

Course	Title	Credits
HUDE-509	Dissertation Research	3-6

HUDE-520	Internship in Counseling Psychology	2
	Sub-Total Credits	**5**
	Total Credits:	**90**

Educational Psychology (PhD)

https://gs.howard.edu/educational-psychology-phd

Course	Title	Credits
HUDE-200	Introduction to Educational Research	3
HUDE-220	Advanced Educational Psychology	3
HUDE-201	Human Development	3
HUDE-503	Directed Individual Study	3
HUDE-400	Intermediate Statistics	3
HUDE-320	Human Learning	3
HUDE-225	Advanced Measurement & Evaluation	3
HUDE-323	Studies in Child Development	3
HUDE-331	Seminar in Black Child Development	3
HUDE-325	Theories of Cognitive Development	3
HUDE-500	Advanced Statistics	3
HUDE-300	Educational Research I	4
HUDE-328	Problems in Educational Psychology	3
HUDE-502	Advanced Topics in Statistics & Multivariate Analysis	3
HUDE-301	Educational Research II	3
HUDE-420	Seminar in Learning and Cognition	3
HUDE-322	Individual Assessment of Cognitive Abilities	3
HUDE-401	Evaluation Methodology	3
HUDE-455	Issues & Trends in Measurement Theory	3
HUDE-403	Select Topics in Program Evaluation	3
	Subspecialty Elective	3
ELPS-524	Intro to Qualitative Research	3
HUDE-518	Internship	3
	Subspecialty Elective	3
	Study/Practicum/Elective (as needed)	3
HUDE-501	Design & Analysis of Research Projects	3
HUDE-518	Internship	3
	Subspecialty Elective	3
	Sub-Total Credits	**85**

HUDE-509 Dissertation Research

NOTE: Three credit hours may be awarded per semester for this course. A maximum of 6 credit hours may be awarded if the student takes HUDE-509 (fall semester) and HUDE-509 (spring semester).

Course	Title	Credits
HUDE-509	Dissertation Research	3-6
	Sub-Total Credits	3
	Total credits:	**88**

School Psychology (PhD)

https://gs.howard.edu/school-psychology-phd

Course	Title	Credits
HUDE-222	Introduction of School Psychology	3
HUDE-322	Individual Assessment of Cognitive Ability I	3
HUDE-201	Human Development	3
HUDE-605	Clinical Interviewing	3
HUDE 300	Educational Research I	3
HUDE-447	Multiculturalism & Diversity in Counseling	3
HUDE-432	Cognitive Abilities II: Culturally Competent Assessment	3
HUDE-516	Cognitive Affective Basis of Behavior	3
HUDE-400	Intermediate Statistics	3
HUDE-309	Ethical and Legal Issues in School Psychology	3
HUDE-227	Personality and Social Disorder	3
HUDE-421	Introduction to Applied Behavior Analysis	3
HUDE-429	Psychoeducational Assessment	3
EDUC-550	Survey of Exceptional Populations	3
HUDE-455	Issues & Trends in Measurement Theory	3
HUDE-500	Advanced Statistics	3
HUDE-301	Educational Research II	3
HUDE-517	RTL and the Prevention of Academic Problems	3
HUDE-430	Consultation in School Psychology	3
HUDE-504	Advanced ABA: Clinical Research and Practice	3
HUDE-502	Advanced Topics in Statistics & Multivariate Analysis	3
HUDE-327	Developmental Psychopathology	3
HUDE-529	Child Abuse & Neglect	3
HUDE-601	Evidence-based Systems Interventions and Therapies	2
HUDE-600	Psychodynamic Interventions and Evidence-based Therapies	2
HUDE-602	Cognitive Behavioral Interventional and Evidence based Therapies	2
PSYC-222	Social Psychology of the Individual	3
HUDE-455	Issues & Trends in Measure Theory	3
HUDE-404	Psychodiagnostics: Soc-Emotional Behavioral Assessment	3
PSYC-244	Seminar in Neuropsychology	3
HUDE-521	Theories and Methods of Mental Health Prevention & Intervent	3
HUDE-501	Design & Analysis of Research Projects	3
HUDE-401	Evaluation Methodology	3
HUDE-444	Group Processes	3
PSYC-271	Psychopharmacology	3
HUDE-330	Seminar in School Psychology	3
PSYC-288	Neuropsychological Assessment	3
	Subspecialty Electiv	**6 credits**

HUDE-519 Internship in School Psychology

Note: One to three credit hours may be awarded per semester for each internship. A maximum of two internship credit hours may be counted towards degree requirements.

Course	Title	Credits

HUDE-509	Dissertation Research	3-6
HUDE-519	Internship in School Psychology	1-3
	Sub-Total Credits	**4**
	Total credits:	**118**

International Studies

In recognition of an increased interest in international studies at Howard University and the broader national and international communities, and in acknowledgment of Howard University 's commitment to increasing the number of African Americans embarking on careers in the Department of State or related agencies, the Graduate School has established the Graduate Certificate in International Studies. The Program is centered around a "grand themes" model, in which a number of major issues or "grand themes" in international studies are explored, including global environment, HIV/AIDS, gender and development, globalization, the war on terrorism, democracy and human rights at home and abroad, international affairs and the color line, the role of religion in society, humanitarianism, race and ethnicity, information technology, food and water, health, education, family, poverty/socioeconomic status, and war and peace.

International Studies (certificate)

https://gs.howard.edu/academics/graduate-certificate-programs/international-studies-graduate-certificate

Course	Title	Credits
INTL-501	Contemporary Issues in International Affairs	3
INTL-509	Internship in International Studies	3
	Sub-Total Credits	**6**

Electives

Choose 9 credits from the courses below.

Course	Title	Credits
INTL-508	Historical & Contemporary Issues of Middle East	3
INTL-511	Political Diplomacy	3
POLS-241	Sem International Dev Pol	3
POLS-259	International Law	3
POLS-264	Problems in International Security	3
	Sub-Total Credits	**9**
	Total credits:	**15**

Law

Howard's Law school offers the Juris Doctor and Master of Laws program. The Juris Doctorate program provides aspiring lawyers with an in-depth understanding of the law as well as real-world skills and training to grow their career and make an impact in a broad spectrum of fields. The curriculum provides the foundation in history, doctrine, process and analysis that students need to fully appreciate more specialized courses offered later in law school. It also includes a wide range of courses and approaches. Some of our classes are purely theoretical and doctrinal. Some focus on particular industries, such as health, pharmaceuticals, and entertainment and sports law. We also offer many opportunities for experiential learning and other courses designed to enable students to be sophisticated entrants into the worlds of business, government and law practice.

The Master of Laws program creates an opportunity for "millennial" lawyers to "hit the reset button" on their career trajectory. It is designed to attract international and domestic students. In addition to the traditional courses offered in most LL.M. programs, Howard Law's program will also offer—to both domestic and international students—courses in human rights, civil rights, and social justice.

Howard is a national law school that embraces diversity and inclusiveness. Howard Law holds the distinction of graduating more African American attorneys than any other law school in the nation. And while we embrace and are poised to remain the flagship in

producing attorneys of color, we seek to share the educational experience and richness that this institution offers with ethnically and culturally diverse individuals. Our approximately 450 students are comprised of people from all walks of life, varied socioeconomic backgrounds, sexual orientation, and gender identity. We have students from almost every US state and many foreign nations. We have third-generation law students and those that will be the first in their family to hold a jurist doctorate. We hope to learn from the experiences of each and every member of the Howard family so our graduates can better foster positive change in society.

Juris Doctor (JD)

Item #	Title	Credits
LAW-507	Legislation / Regulation	3
LAW-615	Contracts	5
LAW-617	Torts	4
LAW-613	LRRW I	2
LAW-666	Civil Procedure	4
LAW-654	Legal Writing II	1
LAW-612	Constitutional Law I	3
LAW-616	Criminal Law	3
LAW-614	Real Property	4
LAW-621	Constitutional Law II	3
LAW-629	Evidence	3
LAW-687	Professional Responsibility	3
LAW-630	Legal Writing III	2
	Sub-Total Credits	**40**

Skill Course Credits

Item #	Title	Credits
LAW-819	Bar Skills	3
LAW-821	DC Law Students in Court-Civ Litigation	12
LAW-941	CD: Bar Skills	2
LAW-947	CD: Bar Skills (MBE)	2
LAW-948	CD: Bar Skills / Essay Writing	2
	Sub-Total Credits	**18**

Experiential Credits

Item #	Title	Credits
LAW-841	CD: Movement Lawyering Clinic	3
LAW-842	CD: Movement Law. Clin. II EXP	6
LAW-845	*CD: Reentry Clinic	3
	Sub-Total Credits	**6**

Electives

Options: Courses under subject code LAW

	Sub-Total Credits	**18**
	Total credits:	**82**

Master of Law (LLM)

Course	Title	Credits
LAW-610	Introduction to U.S. Legal Systems	3
LAW-900	Thesis	3
LAW-764	LLM Writing- Advanced Legal Writing	3
	Sub-Total Credits	**9**

Electives

Options: Courses under subject code LAW

	Sub-Total Credits	**15**
	Total credits:	**24**

Mathematics

As a doctoral student in Mathematics at Howard's Graduate School, you will gain a solid foundation in the mathematical formulation of real-life problems in industry, finance, education, and infectious disease modeling, to name a few areas. Our Ph.D. program in Mathematics will prepare you, like so many of our graduate alumni, to pursue a mathematics career in industry, research, government, or teaching (as a faculty in a college or university mathematics department, curriculum specialist, or mathematics teacher). There exists a strong scholarly relationship between Howard's Mathematics Department and Mathematical Sciences Research Institute (MSRI), located in Berkeley, California, and the Mathematical Biosciences Institute (MBI), located at the Ohio State University, a major center for interdisciplinary work involving mathematics and biology. At Howard, you'll benefit from a highly collegial atmosphere and an active seminar culture that encourages research collaboration, publication, and presentation. The Department's ongoing colloquium, graduate seminars, and

distinguished speaker series will keep you connected with the mathematics community and offer a venue to present your early-stage research. In addition, the department runs a biweekly Math Club, which provides regular exposure to current advances in mathematics. You'll work alongside graduate faculty experts with research interests spanning mathematical modeling, number theory, pure and applied mathematics, discrete mathematics, matrix and operator theory, probability and statistics, topology, geometry, and algebraic combinatorics, among other areas.

Mathematics (PhD)

https://gs.howard.edu/mathematics-phd

Core Course Group I

Choose 3 credits from options below - 3 total credit hours:

Course	Title	Credits
MATH-220	Introduction to Analysis I (B)	3
MATH-221	Introduction to Analysis II (B)	3
MATH-208	Introduction to Modern Algebra I (B)	3
MATH-209	Introduction to Modern Algebra II (B)	3
	Sub-Total Credits	**3**

Core Course Group 2

Complete - 18 total credit hours:

Course	Title	Credits
MATH-210	Algebra I	3
MATH-211	Algebra II	3
MATH-222	Real Analysis I	3
MATH-223	Real Analysis II	3
MATH-250	Topology I	3
MATH-229	Complex Analysis I	3
	Sub-Total Credits	**18**

Core Course Group 3

Choose 6 credits from options below - 6 total credit hours:

Course	Title	Credits
MATH-214	Number Theory I	3
MATH-224	Applications of Analysis	3
MATH-230	Complex Analysis II	3
MATH-231	Functional Analysis I	3
MATH-252	Algebraic Topology I	3
MATH-253	Algebraic Topology II	3
MATH-259	Differential Geometry I	3
MATH-260	Differential Geometry II	3
MATH-237	Partial Differential Equations II	3
	Sub-Total Credits	**6**
Course	**Title**	**Credits**
MATH-280	History of Mathematics	3
	Sub-Total Credits	**3**

Electives

Options: Elective courses are courses offered within the department under subject code MATH and outside of the department at level 200 and above. All courses offered outside of the department must have advanced approval by a program director.

	Sub-Total Credits	**30**

Dissertation

*Note: A maximum of 6 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.

Course	Title	Credits
MATH-550	PhD Dissertation	1-6
MATH-551	PhD Dissertation	1-6
	Sub-Total Credits	**12**
	Total credits:	**72**

Mechanical Engineering

The Graduate Mechanical Engineering programs include the Master of Mechanical Engineering and the Doctor of Philosophy in Mechanical Engineering. Students admitted to the Master's program normally will have completed a bachelor's degree in Mechanical Engineering or a closely allied field (Physics, Mathematics, or Electrical Engineering other engineering disciplines). There is no single criterion for admission; consideration is given to all aspects of an applicant's academic and/or career history, grades, recommendations, special examinations, and other sources of information. Highly qualified applicants holding a Bachelor's or a Master's degree in Engineering, Physical Sciences, or Mathematics, from a nationally accredited institution or applicants with equivalent qualifications from foreign institutions are eligible for admission into the Mechanical Engineering doctoral program.

Mechanical Engineering (MEng)

https://gs.howard.edu/mechanical-engineering-meng

Course	Title	Credits
MEEG-503	Advanced Thermodynamics I	3
MEEG-505	Advanced Dynamics I	3
MEEG-507	Advanced Fluid Mechanics	3
MEEG-512	Applications of Continuum Mechanics	3
EECE-502	Engineering Analysis A	3
EECE-503	Engineering Analysis B	3
MEEG-518	Master's Thesis	6
MEEG-615	Special Project (Non-Thesis Option)	3
	Sub-Total Credits	**21-24**

Electives

Electives: Non-Thesis Option – 12 credits. Electives: Thesis Option –6 credits.

Course	Title	Credits
	Dynamics & Controls of Aerospace Systems Specialization Elective	
	Fluid and Thermal Sciences Specialization Elective Group Applied	
	Mechanics Specialization Elective Group Manufacturing	
	Specialization Elective Group	
	Sub-Total Credits	**6-12**
	Total Credits	**30-33**

Mechanical Engineering (PhD)

https://gs.howard.edu/mechanical-engineering-phd

Course	Title	Credits
MEEG-503	Advanced Thermodynamics I	3
MEEG-505	Advanced Dynamics I	3
MEEG-507	Advanced Fluid Mechanics	3
MEEG-512	Applications of Continuum Mechanics	3
PHYS-216	Mathematical Methods in Physics	3
PHYS-217	Mathematical Methods in Physics II	3
	Sub-Total Credits	**19**

Electives

Choose 42 credits from the elective group options below.

Course	Title	Credits
	Dynamics & Controls of Aerospace Systems Specialization Elective	
	Fluid and Thermal Sciences Specialization Elective Group Applied	
	Mechanics Specialization Elective Group Manufacturing	
	Specialization Elective Group	
	Sub-Total Credits	**42**

Dissertation

*MEEG-618

Note: A maximum of 12 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.

Course	Title	Credits
MEEG-618	Dissertation I	12
	Sub-Total Credits	**12**
	Total credits:	**72**

Medicine

Medicine (MD)

Item #	Title	Credits
INDI-101	Molecules and Cells Unit 1	12
INDI-102	Molecules and Cells Unit 2	8
INDI-342	Population Health I	4
INDI-108	Structure and Function Unit 1	5
INDI-100	Structure and Function Unit 2 (Head, Neck, NS)	10
INDI-109	Structure and Function Unit 3 (Thorax, A&P)	15
INDI-404	Population Health II	3
INDI-303	Organ Systems Unit 1 (General Principles)	6
INDI-304	Organ Systems Unit 2 (Hematopoietic & Lymphoreticular)	6
INDI-305	Organ Systems Unit 3 (Cardiovascular & Respiratory)	7
INDI-324	Organ Systems Unit 4 (Renal/Urinary)	6
INDI-113	Introduction to Clinical Medicine 1	4
INDI-307	Organ Systems Unit 5 (Gastro System)	8
INDI-308	Organ Systems Unit 6 (CN System)	7
INDI-405	Population Health III	4
PHAS-21	Clinical Medicine 1	4
PHAS-22	Clinical Medicine 2	4
MFDX-403	Community Health Family Practice (Fam Med) Clerkship	4
PHAS-54	Emergency Medicine Clerkship	2
PHAS-31	Medicine Clerkship	12
PHAS-50	Obstetrics-Gynecology Clerkship	8
PHAS-52	Pediatrics Clerkship	8
PHAS-57	Psychiatry Clerkship	6
PHAS-53	Surgery Clerkship	8

INDI-114	Health Care Ethics	2
MEDI-402	Senior Medicine	4
MSUX-416	Senior Surgery	4
MFPX-408	Senior Family Medicine/Primary Care	4
INDI-401	Intern Readiness Course	4
	Medicine Senior Electives	20
	Total credits:	**199**

NOTES: Third-year medical students are placed into one of three FALL/SPRING/SUMMER schedules. The number of credit hours can vary per semester. However, each third-year student is registered for a minimum of twelve (12) credit hours and a maximum of eighteen (18) credit hours during any given term.

Fourth-year medical students take four (4) required courses: Senior Internal Medicine, Senior Primary Care, Senior Surgery, and Intern Readiness Course (IRC).

Each student has the opportunity for clinical and research experience through four (4) or five (5) electives, for a minimum of twelve (12) credits hour and a maximum of twenty-four (24) credit hours during any given term.

Medicine Senior Elective Options: Courses under subject codes MEDI and INDI.

Music

The graduate music curriculum is designed for completion in two years of full-time study across the fall and spring semesters. Through intensive coursework, personalized performance instruction, and ensemble participation, students develop into accomplished professional musicians of the highest caliber. Concentration areas include Music Education, Performance and Jazz Studies.

Music (MM)

Master of Music - Music Education Concentration

Major Area Credits

Note: Choose between MUSD-260 OR MUSD-256

Course	Title	Credits
MUSD-258	Foundations of Music Education	3
MUSD-250	Graduate Research in Music Education	3
MUSD-260	Psychology of Music	3
MUSD-256	Administration & Supervision of Music Education	3
	Sub-Total Credits	**9**

Supportive Courses in Music:

Note: Choose at least one course from the following options: MUSD-280, MUSD-051, MUSD-052, OR MUSD-058.

Course	Title	Credits
MUSB-351	Graduate Analysis	3
MUSC-300	Graduate Seminar	3
	Music History and Literature	3
	Music Performance (Primary Instrument)	3
MUSD-280	Instrumental Conducting	3
MUSD-051	Elementary Choral Conducting	3
MUSD-052	Advanced Choral Conducting	3
MUSD-058	Instrumental Conducting	3
	Sub-Total Credits	**15**

Thesis or Recital

Note: choose between MUSD-303 or MUSD-304

Course	Title	Credits
MUSD-303	Thesis	3
MUSD-304	Recital	3
	Sub-Total Credits	**3**

Electives

Note: 6 credits Education Electives (Options: Courses under subject code EDAP, EDUC, or HUDE; prior approval required)

	Sub-Total Credits	**6**

Additional Requirements

Course	Title	Credits
MUSC-311	Graduate Expository Writing Examination	1
MUSC-312	Oral Comprehensive Examination	1
	Sub-Total Credits	**2**
	Total credits:	**35**

Master of Music - Music Education Concentration Extra Credits Option

Major Area Credits

Course	Title	Credits
MUSD-258	Foundations of Music Education	3
MUSD-250	Graduate Research in Music Education	3
MUSD-260	Psychology of Music	3
MUSD-256	Administration & Supervision of Music Education	3
	Sub-Total Credits	**12**

Supportive Courses in Music:

Note: Choose at least one course from the following options: MUSD-280, MUSD-051, MUSD-052, OR MUSD-058.

Course	Title	Credits
MUSB-351	Graduate Analysis	3
MUSC-300	Graduate Seminar	3
	Music History and Literature	3
	Music Performance (Primary Instrument)	3
MUSD-280	Instrumental Conducting	3
MUSD-051	Elementary Choral Conducting	3
MUSD-052	Advanced Choral Conducting	3
MUSD-058	Instrumental Conducting	3
	Sub-Total Credits	**15**

Thesis or Recital

Note: Choose between MUSD-303 or MUSD-304

Course	Title	Credits
MUSD-303	Thesis	3
MUSD-304	Recital	3
	Sub-Total Credits	**3**

Electives

Note: 6 credits Education Electives (Options: Courses under subject code EDAP, EDUC, or HUDE; prior approval required)

	Sub-Total Credits	**6**

Additional Requirements

Item #	Title	Credits
MUSC-311	Graduate Expository Writing Examination	1
MUSC-312	Oral Comprehensive Examination	1
	Sub-Total Credits	**2**
	Total credits:	**38**

Master of Music - Performance, Orchestral Instrument Concentration

Graduate Instrument Major I

Options: Courses under subject code MUSE, MUSL, MUSM, MUSN, MUSO, MUSO, MUSQ, MUSS, MUST, MUSU, MUSV, MUSW, MUTQ, MUTR, MUTS, MUTT, and MUTU level 300 and above.

Sub-Total Credits	**5**

Graduate Instrument Major II

Options: Courses under subject code MUSE, MUSL, MUSM, MUSN, MUSO, MUSO, MUSQ, MUSS, MUST, MUSU, MUSV, MUSW, MUTQ, MUTR, MUTS, MUTT, and MUTU level 300 and above.

Sub-Total Credits	**5**

Graduate Instrument Major III

Options: Courses under subject code MUSE, MUSL, MUSM, MUSN, MUSO, MUSO, MUSQ, MUSS, MUST, MUSU, MUSV, MUSW, MUTQ, MUTR, MUTS, MUTT, and MUTU level 300 and above.

Sub-Total Credits	**5**

Supportive Courses in Music:

*Graduate History 3 Credit Elective (options: courses under subject code MUxx-xxx)

Course	Title	Credits
MUSB-351	Graduate Analysis	3
MUSC-300	Graduate Seminar	3
	Music Graduate History Elective	3
	Sub-Total Credits	**9**

Electives

- Ensemble Electives (Options: Courses under subject MUSC, MUSZ, MUTB, MUTC, MUTD, MUTE, and MUTF. Must take 3 courses at 1cr each.) - 3 credit hours total
- Music Electives (Options: Courses under subject code MUXX-XXX) - 6 credit hours total

Sub-Total Credits	**9**

Additional Requirements

Item #	Title	Credits
MUSC-311	Graduate Expository Writing Examination	1
MUSC-312	Oral Comprehensive Examination	1
MUTO-311	Graduate Qualifying Recital	0
MUTO-312	Graduate Recital	0
	Sub-Total Credits	**2**
	Total credits:	**35**

Item #	Title	Credits
MUSB-351	Graduate Analysis	3
MUSC-300	Graduate Seminar	3
	Music Graduate History Elective	3

	Sub-Total Credits	**9**

Master of Music - Performance, Classical Piano Concentration

Major Area Credits

Course	Title	Credits
MUSE-311	Graduate Piano Major I	5
MUSE-312	Graduate Piano Major II	5
MUSE-321	Graduate Piano Major III	5
	Sub-Total Credits	**15**

Supportive Courses in Music:

Course	Title	Credits
MUSB-351	Graduate Analysis	3
MUSC-300	Graduate Seminar	3
MUSE-371	Graduate Piano Literature I	3
MUSE-372	Graduate Piano Literature II	3
	Sub-Total Credits	**12**

Electives

- Music Electives (Options: Courses under subject code MUXX-XXX) - 6 credit hours total

	Sub-Total Credits	**9**

Additional Requirements

Course	Title	Credits
MUSC-311	Graduate Expository Writing Examination	1
MUSC-312	Oral Comprehensive Examination	1
MUTO-311	Graduate Qualifying Recital	0
MUTO-312	Graduate Recital	0
	Sub-Total Credits	**2**
	Total credits:	**35**

Master of Music - Performance, Classical Voice Concentration

Major Area Credits

Course	Title	Credits
MUSG-311	Graduate Voice Major I	5
MUSE-312	Graduate Voice Major II	5
MUSG-321	Graduate Voice Major III	5
	Sub-Total Credits	**15**

Supportive Courses in Music:

Course	Title	Credits
MUSB-351	Graduate Analysis	3
MUSC-300	Graduate Seminar	3

MUSG-257	Graduate Solo Vocal Literature	3
MUSG-355	Graduate Voice Pedagogy	
MUTL-311	Graduate University Choir I	3
MUTL-312	Graduate University Choir II	3
	Sub-Total Credits	**15**

Electives

- Music Electives (Options: Courses under subject code MUXX-XXX) - 3 credit hours total

	Sub-Total Credits	**3**

Additional Requirements

Course	Title	Credits
MUSC-311	Graduate Expository Writing Examination	1
MUSC-312	Oral Comprehensive Examination	1
MUTO-311	Graduate Qualifying Recital	0
MUTO-312	Graduate Recital	0
	Sub-Total Credits	**2**
	Total credits:	**35**

Master of Music – Jazz Studies, Instrument Concentration

Major Area

Course	Title	Credits
MUSH-392	Improvisation	3
MUSE-383	Jazz Arranging	3
MUTI-311	Jazz Ensemble A	1
	Graduate Instrument Minor I	3
	Graduate Instrument Minor II	3
	MUSC 361-Jazz History or MUSI-210 Jazz History	3
	Sub-Total Credits	**16**

Supportive Courses in Music:

Course	Title	Credits
MUSH-250	Pedagogy of Improvisation	3
MUSC-300	Graduate Seminar	3
MUSI-376	Music Technology I	3
	Sub-Total Credits	**9**

Electives

Note: At least five (5) credit hours from the following:

Course	Title	Credits
MUSI-232	Intro to Entertainment Law	3
MUTX-311	Jazz Piano I	3
MUSI-377	Music Technology II	1
MUTI-312	Jazz Ensemble A II	1
MUTI-313	Jazz Ensemble A III	1

MUTI-314	Jazz Ensemble A IV	3
MUTI-384	Jazz Arranging II	3
MUSI-260	Independent Study	3
MUTI-211	Jazztet I	1
	Sub-Total Credits	**5**

Additional Requirements

Course	Title	Credits
MUSC-311	Graduate Expository Writing Examination	1
MUSC-312	Oral Comprehensive Examination	1
MUTO-311	Graduate Qualifying Recital	0
MUTO-312	Graduate Recital	0
	Sub-Total Credits	**2**
	Total credits:	**32**

Master of Music – Jazz Studies, Voice Concentration

Major Area

Course	Title	Credits
MUSH-392	Improvisation	3
MUSI-434	Vocal Arranging	3
MUTI-311	Voice for Jazz Studies I	1
MUTW-312	Voice for Jazz Studies II	3
MUTV-311	Jazz Vocal Workshop I	3
	MUSC 361-Jazz History or MUSI-210 Jazz History	3
	Sub-Total Credits	**16**

Supportive Courses in Music:

Course	Title	Credits
MUSH-250	Pedagogy of Improvisation	3
MUSC-300	Graduate Seminar	3
MUSI-376	Music Technology I	3
	Sub-Total Credits	**9**

Electives

Note: At least five (5) credit hours from the following:

Course	Title	Credits
MUSI-232	Intro to Entertainment Law	3
MUTX-311	Jazz Piano I	3
MUSI-377	Music Technology II	3
MUTW-321	Voice for Jazz Studies III	3
MUTW-322	Voice for Jazz Studies IV	3
MUTV-312	Jazz Vocal Workshop II	1
MUTV-321	Jazz Vocal Workshop III	1
MUTV-322	Jazz Vocal Workshop IV	1
MUSH-383	Jazz Arranging I	3
	Sub-Total Credits	**5**

Additional Requirements

Course	Title	Credits
MUSC-311	Graduate Expository Writing Examination	1
MUSC-312	Oral Comprehensive Examination	1
MUTO-311	Graduate Qualifying Recital	0
MUTO-312	Graduate Recital	0
	Sub-Total Credits	**2**
	Total credits:	**32**

Nursing

Master of Science Nursing (online) (MSN)

https://cnahs.howard.edu/departments/nursing/graduate-nursing

MSN - Family Nurse Practitioner Track

Item #	Title	Credits
NURC-511	Advanced Pathophysiology	3
NURC-512	Theoretical Foundation for Advanced Practice Nursing	2
NURP-601	Pharmacotherapeutics	3
NURP-605	Advanced Health Assessment	3
NURC-502	Nursing Research: Theory and Practice	4
NURP-606	Family Primary Care of Children and Adolescents & Practicum	4
NURP-607	Family Primary Care of Women & Practicum	4
NURP-608	Family Primary Care of Adults & Practicum	5
NURC-504	Health Care Policy	2
NURC-605	Thesis	2
NURC-606	Research Practicum	2
NURP-609	Family Primary Care of Older Adults & Practicum	5
NURC-501	Interdisciplinary Health Care Ethics	2
NURC-509	Cultural Diversity and Social Issues	2
NURC-605	Thesis	2
NURR-610	Family Primary Nurse Practitioner Role Seminar Practicum	5
	Total credits:	**46**

Family Nurse Practitioner (Post- Master's Certificate)

Item #	Title	Credits
NURC-511	Advanced Pathophysiology	3
NURP-601	Pharmacotherapeutics	3
NURP-605	Advanced Health Assessment	3
NURP-606	Family Primary Care of Children and Adolescents & Practicum	4
NURP-607	Family Primary Care of Women & Practicum	4
NURP-608	Family Primary Care of Adults & Practicum	5
NURP-609	Family Primary Care of Older Adults & Practicum	5
NURR-610	Family Primary Nurse Practitioner Role Seminar Practicum	5
	Total credits:	**32**

MSN – Nurse Educator Track

Item #	Title	Credits
NURC-511	Advanced Pathophysiology	3
NURC-512	Theoretical Foundation for Advanced Practice Nursing	2
NURP-601	Pharmacotherapeutics	3
NURP-605	Advanced Health Assessment	3
NURG-520	Teaching and Learning in Nursing Education	2
NURG-521	Curriculum and Instruction in Nursing Education	3
NURG-522	Role Development as a Nurse Educator	2
NURG-523	Nurse Educator Practicum	2
NURG-524	Clinical Role Specialty for the Nurse Educator	2
NURG-525	Clinical Role Practicum for the Nurse Educator	2
NURC-502	Nursing Research: Theory and Practice	4
NURC-504	Health Care Policy	2
NURG-526	Measurement and Evaluation in Nursing Education	3
NURC-606	Research Practicum	2
NURC-509	Cultural Diversity and Social Issues	2
NURC-501	Interdisciplinary Health Care Ethics	2
	Total credits:	**39**

Doctor of Nursing Practice (online) (DNP)

https://cnahs.howard.edu/departments/nursing/graduate-nursing-program/doctor-nursing-practice-dnp

Post-Master's APRN – DNP Track

Item #	Title	Credits
NURD-704	Scholarly Writing	1
NURD-705	Applied Biostatistics & Translational Research	3
NURD-701	DNP Role	2
NURD-702	Epidemiology and Population Health	3
NURD-708	Resource and Organizational Management	3
NURD-710	DNP Project Seminar I	1
NURD-711	DNP Project Seminar II	1
NURC-504	Health Policy	3
NURP-701	Primary Care of Mental Health Conditions	4
NURD-707	Leadership and Communication	4
NURD-712	DNP Project Seminar III	1
NURP-703	Residency	1
NURD-713	DNP Project Seminar IV	1
NURG-709	Healthcare Finance and Economics	3
NURD-703	Health Informatics	3
NURP-702	Integrative Health Approaches & Modalities in Primary Care	2
	Total credits:	**38**

Psych-Mental Health Nurse Practitioner (PMHNP) - DNP

Item #	Title	Credits
NURD-704	Scholarly Writing	1
NURD-705	Applied Biostatistics & Translational Research	3
NURD-701	DNP Role	2
NURD-702	Epidemiology and Population Health	3

NURD-708	Resource and Organizational Management	3
NURD-710	DNP Project Seminar I	1
NURD-711	DNP Project Seminar II	1
NURC-504	Health Policy	3
NURP-701	Primary Care of Mental Health Conditions	4
NURD-707	Leadership and Communication	4
NURD-712	DNP Project Seminar III	1
NURP-703	Residency	1
NURD-713	DNP Project Seminar IV	1
NURD-709	Healthcare Finance and Economics	3
NURD-703	Health Informatics	3
NURP-702	Integrative Health Approaches & Modalities in Primary Care	2
NURC-511	Advanced Pathophysiology	3
NURP-601	Pharmacotherapeutics	3
NURP-605	Advanced Health Assessment	3
NURM-701	Mental Health Assessment Across the Lifespan	4
NURM-702	Psychopharmacology I	3
NURM-704	Psychopathological Disorders	3
NURM-705	Psychotherapy Across the Lifespan and Practicum	4
NURM-706	Psych-Mental Health Role	2
NURM-707	Diagnostics and Management of Psychiatric-Mental Health Conditions	4
NURM-708	Resource and Organizational Management	3
NURM-710	Psych-Mental Health Clinical Practice Across the Lifespan II	3
NURM-711	Crisis Management	3
NURM-712	Residency in Psychiatry	4
	Total credits:	**78**

Nutritional Sciences

The Department of Nutritional Sciences offers graduate Master of Science and Doctor of Philosophy degrees in Nutritional Sciences. With increasing recognition of the association between diet and disease and the importance of diet in health promotion, nutritionists and dietitians are needed to participate in research, to educate the public on ways to promote health through diet, and to educate individuals suffering from chronic diseases on ways to incorporate dietary modifications into their lifestyles. Additionally, a degree in nutrition or dietetics can be used as a foundation to prepare for graduate school as well as entry into professional schools such as medicine, dentistry, pharmacy, or other advanced degrees in business and education.

Nutritional Science (MS)

https://gs.howard.edu/nutritional-sciences-ms

- Students must complete all courses in one of the following tracks: Community Nutrition and Experimental Nutrition.
- Thesis in MS Thesis can be taken only after admission to candidacy. Must be taken in consultation with a thesis advisor.

Course Courses

Course	Title	Credits
NUTG-284	Community Nutrition	3
NUTG-310	Graduate Seminar in Nutrition	2
NUTG-316	Evaluation of Nutrition Status	3
	NUTR-208 Aging in Nutrition or NUTR 315 Minerals	3
	NUTR-315 Minerals or NUTR 503 Nutrition Policy	3
NUTG-318	Techniques in Community Nutrition	2
NUTG-319	Research Methods in Experimental Nutrition	4
NUTG-516	Macronutrients	4
NUTG-517	Micronutrients	4
BIOC-182	Clinical Biochemistry	3
NUTG-301	Thesis in Nutritional Science	3
NUTG-302	Thesis in Nutritional Science	1
	Sub-Total Credits	**31-33**

Statistics Course Options

*Select one statistics course from the options below.

Course	Title	Credits
HUDE-205	Introduction to Statistical Methods	3
PSYC-207	Statistics I	3
BIOG-430	Biostatistics	4
	Sub-Total Credits	**3-4**

Elective Courses

*Choose from the options in the Nutritional Sciences elective group - 6 credit hours required.

**Courses may also be selected from NUTG, BIOC, PSYC, SOCI, CHEM, EDUC, COMM, or ANTG level 200 and above. Courses outside these codes can be considered for approval from the program director.

Course	Title	Credits
	Nutritional Science Elective Group	
	Sub-Total Credits	**6**
	Total credits:	**42-43**

Nutritional Science: Dietetics (MS)

https://cnahs.howard.edu/departments/nutritional-sciences/coordinated-program-dietetics-cp

Core Courses

Course	Title	Credits
NUTG-310	Graduate Seminar	1
NUTG-501	Adv Nutr & Hum Met	3
NUTG-510	Dietetics and Nutrition Education	3
NUTG-519	Food Serv Systems Management	3
NUTG-520	Prac Food Serv Mgmt	1
	*Statistics	3
NUTG-325	NCM I	3
NUTG-410	MNT I	3
NUTG-415	MNT Dry Lab I	2
NUTG-521	Org & Mgmt	3
NUTG-522	Prac Org & Mgmt	1

NUTG-318	Tech in Comm Nutrition	2
NUTG-411	NCM II	4
NUTG-413	MNT II	3
NUTG-418	MNT Dry Lab II	2
NUTG-301	MS Research	1
NUTG-504	Health Disparities	3
NUTG-523	Prac Community Nutrition	1
NUTG-420	Practicum Comprehensive	6
NUTG-600	MS Thesis	3
	Total Credits	**51**

SPECIAL NOTES: *Course may be selected from introduction to Statistical Methods (HUDE-205), Statistics I (PSYC207), or Biostatistics (BIOG-430). **Course can be substituted with PHAS 608 Cultural & Social Determinants of Health or PUHE 502 Health Disparities and Inequities with permission. 1MS Thesis can only be taken after admission to candidacy. The course must be taken in consultation with a thesis advisor

Nutritional Science (PhD)

https://gs.howard.edu/nutritional-sciences-phd

Note: A maximum of 6 dissertation credits may be taken per semester. In addition, up to 9 dissertation credits may be counted toward the required credits for program completion.

Four (4) hours of NUTG-310 must be completed to be used towards degree completion.

Course	Title	Credits
NUTG-284	Community Nutrition	3
NUTG-310	Graduate Seminar Nutrition	1-4
NUTG-312	Proteins	3
NUTG-313	Lipids	3
NUTG-316	Evaluation of Nutrition Status	3
NUTG-319	Research Methods in Experimental Nutrition	4
NUTG-318	Techniques in Community Nutrition	2
BIOC-182	Clinical Biochemistry	3
NUTG-314	Vitamins	3
NUTG-311	Carbohydrate & Energy Metabolism	2
NUTG-402	Res in Nutrition	1
NUTG-208	Nutrition in Aging	2
HLMN-506	Intro to Epidemiology	3
NUTG-315	Minerals	3
HHPL-385	Community Organization for Health	3
NUTG-516	Macronutrients I	4
NUTG-517	Micronutrients II	4
NUTG-526	Macronutrients II	4
NUTG-527	Micronutrients II	4
NUTG-401	Research in Nutrition	3
NUTG-403	PhD Dissertation Research	1
NUTG-700	PhD Dissertation	3
	Sub-Total Credits	**50**

Statistics Credits Options

*Select statistics courses from the options below - 6 total credit hours.

Course	Title	Credits
HUDE-205	Introduction to Statistical Methods	3
PSYC-207	Statistics I	3
BIOG-430	Biostatistics	4
HUDE-400	Intermediate Statistics	3
PSYC-208	Statistics II	3
	Sub-Total Credits	**6**

Elective Courses

*Choose from the options in the elective group below - 17 credit hours required.

**Courses may also be selected from NUTG-, BIOC-, PSYC-, SOCI-, CHEM-, EDUC-, COMM-, or ANTG- level 200 and above. Courses outside these codes can be considered for approval from the program director.

Course	Title	Credits
	Nutritional Science Elective Group	
	Sub-Total Credits	**18**
	Total credits:	**74**

Occupational Therapy

The Howard University Occupational Therapy Program is proud to offer an Entry-Level Occupational Therapy program leading to a Doctor of Occupational of Therapy (OTD) and Post-Professional Doctor of Occupational Therapy (OTD). The Department is uniquely privileged to be among the few providers of entry-level occupational therapy graduates in the Nation's capital. The program has a rich history of excellence in leadership, graduating highly sought-after therapists, and developing national and international health professionals.

Occupational Therapy (MSOT)

https://cnahs.howard.edu/departments/occupational-therapy/master-science-occupational-therapy

Item #	Title	Credits
OCCG-760	Musculoskeletal Anatomy	4
OCCG-517	Health & Wellness	2
OCCG-521	OT Theory & Concepts	3
OCCG-523	Occupational Science	3
OCCG-316	Clinical Kinesiology	3
OCCG-518	Research Method in OT	2
OCCG-513	Clinical Neuroscience	3
OCCG-515	Life Participation & Aging	2
OCCG-516	Human Performance & Movement Analysis	2
OCCG-520	Pediatrics in OT	3
OCCG-532	Clinical Decision-Making I	1
OCCG-514	Principles of Disease	3
OCCG-544	Fieldwork Level I	1
OCCG-530	Theories & Assessment in Mental Health	3
OCCG-531	Theories of Occupational Performance & Assessment in Physical Dysfunctions	3
OCCG-539	Clinical Decision-making in OT II	1
OCCG-535	Independent Research Project I	3

OCCG-533	Analysis of Human Performance & Technology	3
OCCG-545	Fieldwork Level (Intermediate)	1
OCCG-540	Theories of Human Performance & Interventions in Pediatrics	3
OCCG-538	Theories of Occupational Performance & Intervention in Physical Dysfunctions	3
OCCG-537	Theories of Group Dynamics & Interventions in Mental Health	3
OCCG-616	Professional Issues & Ethics in OT	2
OCCG-534	OT Administration & Management	2
OCCG-657	Evidence-Based Research	2
OCCG-618	Independent Research Project in OT II	1
OCCG-543	Clinical Decision Making In OT III	1
OCCG-546	Fieldwork Level I (Advanced)	1
OCCG-541	Fieldwork II Experience	6
OCCG-542	Fieldwork II Experience	6
OCCG-547	OT Senior Board Prep Seminar	3
	Total credits:	**77**

Occupational Therapy (OTD)

Item #	Title	Credits
OCCG-760	Musculoskeletal Anatomy	4
OCCG-761	Health & Wellness	2
OCCG-762	OT Theory & Concepts	3
OCCG-764	Occupational Science	3
OCCG-763	Clinical Kinesiology	3
OCCG-765	Research Method in OT	2
OCCG-702	Doctoral Research Projects I	1
OCCG-766	Clinical Neuroscience	3
OCCG-767	Life Participation & Aging	2
OCCG-768	Human Performance & Movement Analysis	2
OCCG-769	Pediatrics in OT	3
OCCG-770	Clinical Decision-Making I	1
OCCG-771	Fieldwork Level I	1
OCCG-740	Evidence Based Research	3
OCCG-704	Minority Health & Health Equity	3
OCCG-726	Theories of Group Dynamics in Mental Health	3
OCCG-725	Theories of Occupational Performance & Assessment in Physical Dysfunctions	3
OCCG-724	Clinical Decision-making in OT II	1
OCCG-742	Organizational Leadership	3
OCCG-722	Analysis of Human Performance & Technology	3
OCCG-772	Fieldwork Level (Intermediate)	1
OCCG-723	Theories of Human Performance & Interventions in Pediatrics	3
OCCG-727	Professional Issues & Ethics in OT	2
OCCG-728	OT Administration & Management	2
OCCG-706	Doctoral Research Projects II	1
OCCG-707	Program Development, Entrepreneurship & Grant Writing	3
OCCG-729	Clinical Decision Making In OT III	1

	Total credits:	**96**

Occupational Therapy (online) (OTD)

https://cnahs.howard.edu/departments/occupational-therapy/post-professional-doctor-occupational-therapy-otd-online

Item #	Title	Credits
OCCG-713	Advanced Theory and Practice in Occupational Therapy	3
OCCG-704	Minority Health and Health Equity	3
OCCG-740	Evidence-Based Research	6
OCCG-741	Capstone I	2
OCCG-742	Organizational Leadership	3
OCCG-748	Qualitative and Quantitative Method	3
OCCG-707	Program Development, Entrepreneurship, & Grant Writing	3
OCCG-716	Health Equity and Global Health Seminar	3
OCCG-750	Capstone Project	2
INTL-501	Contemporary Issues in International Affairs	3
	Advanced Practice Electives	6
	Total credits:	**34**

Pharmaceutical Sciences

Pharmaceutical Sciences offers a four-year Ph.D. degree in Pharmaceutical Sciences with tracks in Pharmacy Administration, Medicinal Chemistry, and Pharmaceutics.

The Pharmacy Administration track is committed to excellence in developing pharmacy professionals that combine the use of health services research, education, and service to advance health care systems, governmental policies, and regulatory agencies tasked with ensuring the optimal use of medications with the goal of improving human health. Moreover, in line with the mission of Howard University, our professionals will gain experience in using their expertise to address health disparities that impact our communities.

Research in the Howard University Medicinal Chemistry Track spans activities in contemporary chemical biology and drug discovery and blends the principles and experimental techniques of chemistry and biology with computational science. While maintaining a traditional emphasis on the drug candidate, we integrate contemporary biological methods to merge small molecule and target biomolecule research. This approach allows for elucidation of disease pathways and mechanisms of drug action. Our program encompasses nearly all aspects of drug discovery, including bioactive natural products, organic chemistry, computational drug design, assay development, high throughput screening of chemical libraries, and studies in living cells.

The Pharmaceutics Track produces Ph.Ds. who will eventually engineer drug delivery systems for new therapies and vaccines intended for human use. There are many routes of administration, including oral, pulmonary, parenteral, percutaneous, and transmucosal. The design and fabrication of nanoparticulate drug carriers have received critical attention recently as they provide a new challenge as well as opportunities.
Because of strong educational and training components in basic pharmaceutics, the division is ideally situated in bridging basic sciences to biomedical research.

Pharmaceutical Science (PhD)

https://gs.howard.edu/pharmaceutical-sciences-phd

Pharmaceutical Science (PhD) Medicinal

- PHSC-701 *Note: A maximum of 9 PhD Research credits may be taken per semester. In addition, a maximum of 12 Research credits may be counted toward the 72 required for program completion.
- PHSC-801 *Note: A maximum of 9 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.
- PHSC-604 *Note: A maximum of 3 dissertation writing credits may be taken per semester. In addition, a maximum of 3 dissertation writing credits may be counted toward the 72 required for program completion.

Course	Title	Credits
PHSC-511	Biostatistics	4
PHSC-631	Research Design and Methods	3
CHEM-243	Advanced Organic Chemistry	3
PHSC-703	Proposal Writing	3
PHSC-601	Seminar	2
PHSC-602	Seminar	1
PHSC-421	Math/Statistics II	4
PHSC-425	Organometallic Chemistry in Drug Synthesis	4
PHSC-523	Molecular Modeling	3
PHSC-747	Nano Therapeutics	3
PHSC-701	Research	9
PHSC-801	Dissertation	9
PHSC-604	Dissertation Writing	3
	Pharmaceutical Sciences - Medicinal Chemistry Elective Group	23
	Total credits:	**72**

Pharmaceutical Science (PhD) Pharmaceutics

- PHSC-701 *Note: A maximum of 9 PhD Research credits may be taken per semester. In addition, a maximum of 12 Research credits may be counted toward the 72 required for program completion.
- PHSC-801 *Note: A maximum of 9 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.
- PHSC-604 *Note: A maximum of 3 dissertation writing credits may be taken per semester. In addition, a maximum of 3 dissertation writing credits may be counted toward the 72 required for program completion.

Course	Title	Credits
PHSC-511	Biostatistics	4
PHSC-631	Research Design and Methods	3
PHSC-509	Principles of Drug Formulation	3
PHSC-703	Proposal Writing	3
PHSC-601	Seminar	2
PHSC-602	Seminar	1
PHSC-410	Applied Pharmacokinetics	3
PHSC-423	Advances in Drug Delivery Systems	3
PHSC-509	Principles of Drug Formulation	3
PHSC-714	Drug Stability & Packaging	3
PHSC-747	Nano Therapeutics	3
PHSC-647	Advanced Physical Pharmacy	3
PHSC-701	Research	9
PHSC-801	Dissertation	9
PHSC-604	Dissertation Writing	3
	Pharmaceutical Sciences - Pharmaceutics Elective Group	21

Total credits:	**73**

Pharmaceutical Science (PhD) Pharmacokinetics

- PHSC-701 *Note: A maximum of 9 PhD Research credits may be taken per semester. In addition, a maximum of 12 Research credits may be counted toward the 72 required for program completion.
- PHSC-801 *Note: A maximum of 9 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.
- PHSC-604 *Note: A maximum of 3 dissertation writing credits may be taken per semester. In addition, a maximum of 3 dissertation writing credits may be counted toward the 72 required for program completion.

Course	Title	Credits
PHSC-511	Biostatistics	4
PHSC-631	Research Design and Methods	3
PHSC-703	Proposal Writing	3
PHSC-601	Seminar	2
PHSC-602	Seminar	1
MATH-240	Mathematical Statistics I	3
MATH-241	Mathematical Statistics II	3
PHAR-209	Drug Development in Clinical Pharmacology	2
PHAR-216	General and Systematic Pharmacology I	4
PHSC-398	Advanced Biopharmaceutics	3
PHSC-410	Applied Pharmacokinetics I	3
PHSC-411	Applied Pharmacokinetics II	3
PHSC-701	Research	9
PHSC-801	Dissertation	9
PHSC-604	Dissertation Writing	3
	Pharmaceutical Sciences - Pharmacokinetics Elective Group	20
	Total credits:	**72**

Pharmaceutical Science (PhD) Pharmacy Administration - Health Outcomes Research Track

- PHSC-701 *Note: A maximum of 9 PhD Research credits may be taken per semester. In addition, a maximum of 12 Research credits may be counted toward the 72 required for program completion.
- PHSC-801 *Note: A maximum of 9 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.
- PHSC-604 *Note: A maximum of 3 dissertation writing credits may be taken per semester. In addition, a maximum of 3 dissertation writing credits may be counted toward the 72 required for program completion.

Course	Title	Credits
PHSC-511	Biostatistics	4
PHSC-631	Research Design and Methods	3
PHSC-434	Pharm Care Organizational Management	3
PHSC-537	Pharmacoepidemiology	3
PHSC-535	Pharmacoeconomics I	3
PHSC-430	Advanced Pharmacy Administration	3
PHSC-703	Proposal Writing	3
PHSC-601	Seminar	2
PHSC-602	Seminar	1
PHSC-611	Advanced Pharmacy Administration II	3
PHSC-612	Pharmacoeconomics II	3
PHSC-701	Research	9
PHSC-801	Dissertation	9

PHSC-604	Dissertation Writing	3
	Pharmaceutical Sciences - Pharmacy Administration Health Outcomes Elective Group	17
	Total credits:	**72**

Pharmaceutical Science (PhD) Pharmacy Administration - Regulatory Affairs & Policy Track

- PHSC-701 *Note: A maximum of 9 PhD Research credits may be taken per semester. In addition, a maximum of 12 Research credits may be counted toward the 72 required for program completion.
- PHSC-801 *Note: A maximum of 9 dissertation credits may be taken per semester. In addition, a maximum of 12 dissertation credits may be counted toward the 72 required for program completion.
- PHSC-604 *Note: A maximum of 3 dissertation writing credits may be taken per semester. In addition, a maximum of 3 dissertation writing credits may be counted toward the 72 required for program completion.

Course	Title	Credits
PHSC-511	Biostatistics	4
PHSC-631	Research Design and Methods	3
CLPS-318	Pharm Law & Policy	3
PHSC-319	Making Medicines	3
PHSC-434	Pharm Care Organizational Management	3
PHSC-537	Pharmacoepidemiology	3
PHSC-535	Pharmacoeconomics I	3
PHSC-430	Advanced Pharmacy Administration	3
PHSC-703	Proposal Writing	3
PHSC-601	Seminar	2
PHSC-602	Seminar	1
PHSC-401	Research Rotation	3
PHSC-701	Research	9
PHSC-801	Dissertation	9
PHSC-604	Dissertation Writing	3
	Pharmaceutical Sciences - Pharmacy Administration Regulatory Affaris Elective Group	12
	Total credits:	**73**

Pharmacy

Pharmacy (PharmD)

https://pharmacy.howard.edu/academic-programs/four-year-entry-level-pharm-d-program

- CLPS-422 *Note: A maximum of 15 Advanced Professional Practice Experience credits may be taken per semester.
- CLPS-021 *Note: A maximum of 4 IPPE credits may be taken per semester.
- CLPS-022 *Note: A maximum of 4 IPPE credits may be taken per semester.
- CLPS-420 APPE I *Note: A maximum of 15 Advanced Professional Practice Experience credits may be taken per semester.

Course	Title	Credits

PHSC-317	Structures & Functions in Therapeutics	2
PHSC-312	Pharmacological Therapeutics I	3
PHSC-323	Pharm Calculations I	2
CLPS-306	Drug Informatics	2
CLPS-319	Professional Practice Readiness I	3
PHSC-315	Pharmaceutical Chemistry I	3
PHSC-321	Applications for Pharmacy Practice	1
PHSC-307	Pharmaceutics	4
PHSC-308	Pharmacological Therapeutics II	3
PHSC-309	Pharmaceutical Chemistry II	3
PHSC-316	Physico-chemical Principles of Pharmacy	2
CLPS-311	Pharmaceutical Care	3
PHSC-313	Pharmaceutical Calculations II	2
CLPS-347	Applications for Pharmacy Practice 2	1
CLPS-021	IPPE I	4
PHSC-316	Physico-chemical Principles of Pharmacy	2
PHSC-429	Biopharmaceutics	3
CLPS-425	IT 1 - Foundations of IT	3
CLPS-426	IT 2 - Cardiology/Critical Care	3
CLPS-427	IT Lab 1	2
PHSC-336	Pharm Compounding Lab	2
CLPS-428	Principles of Pharm Adm I	2
CLPS-370	IT 3 Infectious Disease/Antimicrobials	4
CLPS-371	IT 4 Bone, Joint and Immunology	2
CLPS-372	IT Lab 2	2
CLPS-323	Pharmacoepidemiology & Outcome Res	3
PHSC-314	Pharmacokinetics	4
	Pharmacy Elective (Options: PHSC or CLPS courses)	3
CLPS-373	Applications for Pharmacy Practice 4	1
CLPS-022	IPPE II	4
CLPS-365	IT Lab 3	2
CLPS-340	Pharm Jurisprudence	3
CLPS-363	IT 5 - Oncology/Hem/Pain Palliative	3
CLPS-364	IT 6 - Endocrine/GI/Renal	3
CLPS-235	Health Care Ethics	2
	Pharmacy Elective (Options: PHSC or CLPS courses)	3
CLPS-366	Applications for Pharmacy Practice 5	1
CLPS-450	IT 7 - Neuro/Psych	3
CLPS-451	IT 8 - Special Populations	3
CLPS-353	IT Lab 4	2
CLPS-452	Principles of Pharm Admin II	2
CLPS-320	Professional Practice Readiness II	3
CLPS-453	Applications for Pharmacy Practice 6	1
CLPS-420	APPE I	10
CLPS-421	Advanced Pharm Practice Exp. II	15
CLPS-422	Advanced Professional Practice Experience III	15
	Total credits:	**151**

Non-Traditional Pharmacy (PharmD)

https://pharmacy.howard.edu/academic-programs/non-traditional-doctor-pharmacy-ntdp-program

Item #	Title	Credits
NTDP-624	Drug Information Resources	1
NTDP-623	Patient Assessment Skills	1
NTDP-615	Pharmacoepidemiology	4
NTDP-625	Pharmacokinetics	4
NTDP-626	Principles of Pharmacy Administration	3
NTDP-606	Integrated Pharmaceutical Care and Science Laboratory: I-Care Lab-1	2
NTDP-627	Introduction Concepts	3
NTDP-628	Endocrine/Renal/GI	3
NTDP-617	Hematology/Oncology	3
NTDP-607	Cardiovascular	3
NTDP-629	Integrated Pharmaceutical Care and Science Laboratory: I-Care Lab	2
NTDP-610	Infectious Diseases	4
NTDP-630	Bone Joint and Immunology	3
NTDP-620	Neurology and Psychiatry	3
NTDP-631	Special Populations	3
NTDP-632	Integrated Pharmaceutical Care and Science Laboratory: I-Care Lab-3	2
NTDP-633	Profess. Practice-1	7
NTDP-634	Profess. Practice-2	7
NTDP-635	Profess. Practice-3	7
	Total credits:	**65**

Physical Therapy

The Physical Therapy program offers an accredited program leading to a Doctor of Physical Therapy (DPT) degree. Students in this program are exposed to cutting edge research and practice in both the classroom and the clinic. Graduates of the program are eligible to sit for the state licensure examination and are entitled to full membership in the professional organization, the American Physical Therapy Association. Information regarding state licensure can be obtained from the individual licensing boards. Physical therapists are health care professionals who diagnose and treat individuals of all ages with medical problems or other health-related conditions that limit their abilities to move and perform functional activities in their daily lives. Physical therapists examine each individual and develop a plan using treatment techniques to promote the ability to move, reduce pain, restore function, and prevent disability. In addition, physical therapists work with individuals to prevent the loss of mobility before it occurs by developing fitness and wellness-oriented programs for healthier and more active lifestyles. State licensure is required in each state in which a physical therapist practices.

Physical Therapy (DPT)

https://cnahs.howard.edu/departments/physical-therapy/physical-therapy-program

Course	Title	Credits

PHTH-706	Pathophysiology	2
PHTH-715	Introduction to PT Practice	2
PHTH-708	Clinical Rehab. Medicine 2	2
PHTH-716	Lifespan Development 2	2
PHTH-700	Advanced Human Anatomy	5
PHTH-701	Clinical Kinesiology	3
PHTH-702	Clinical Process in PT Practice	3
PHTH-704	Introduction to Physical Agents	2
PHTH-707	Introduction to Radiology 1	1
PHTH-703	Tests and Measurements	2
PHTH-710	Neurobiology	4
PHTH-711	Introduction to the MS System	4
PHTH-712	Introduction to the CP System	3
PHTH-713	Intro to Therapeutic Exercise	2
PHTH-717	Introduction to Pharmacology 2	2
PHTH-720	Introductory Clinical Internship	1
PHTH-722	Intro to the Neuromuscular System	4
PHTH-723	Advanced Study of the MS System	4
PHTH-724	Advanced Study of the CP System	3
PHTH-725	PT Health Admin and Policy	2
PHTH-714	Intro to Evidence-Based Practice	2
PHTH-729	Integ. Assessment and Intervention	3
PHTH-730	Adv Study of the Neuro System	4
PHTH-731	Integrative Clinical Issues in PT	4
PHTH-732	PT in Special Populations	4
PHTH-733	Integrative Clinical Seminar	4
PHTH-726	Adv. Evidence Based Practice	2
PHTH-736	Medical Imaging	2
PHTH-741	Advanced Clinical Internship I	1
PHTH-742	Advanced Clinical Internship II	1
PHTH-743	Clinical Specialty Internship	8
PHTH-744	Capstone Project	2
PHTH-745	Wellness Practice	2
PHTH-761	Health Mgt, Finance, Ethics & Law	2
PHTH-762	Clinical Management in PT	2
	Total credits:	**96**

Physician Assistant

Physician Assistant Studies (MPAS)

https://cnahs.howard.edu/departments/master-science-physician-assistant-mpas-program

Course	Title	Credits
PHAS-601	Clinical Assessment I	4
PHAS-604	Human Anatomy	4
PHAS-607	Human Physiology	4
PHAS-605	Pathophysiology for PA	3
NURC-503	Ethics for Health Professionals	2

PHAS-608	Cultural and Social Determinants of Health	2
PHAS-606	Physician Assistant Practice	1
PHAS-613	Clinical Lab & Diagnostics I	2
PHAS-611	Pharmacology I	3
PHAS-615	Behavioral & Mental Health	2
PHAS-602	Clinical Assessment II	3
PHAS-609	Clinical Medicine I	5
PHAS-616	Women's Health	2
PHAS-620	Evidence Based Medicine & Research	2
PHAS-504	Geriatrics for Allied Health Professionals	2
PHAS-610	Clinical Medicine II	5
PHAS-603	Clinical Assessment and Skills	2
PHAS-618	Principles of General Surgery	2
PHAS-612	Pharmacology II	3
PHAS-614	Clinical Lab & Diagnostics II	2
PHAS-617	Child Health	2
PHAS-622	Biostatistics & Research Methods for PA	2
PHAS-710	Capstone I	1
PHAS-701	Internal Medicine Clerkship	5
PHAS-702	General Surgery Clerkship	5
PHAS-703	Emergency Medicine Clerkship	5
PHAS-704	Pediatric Clerkship	5
PHAS-705	Women's Health Clerkship	5
PHAS-706	Behavioral & Mental Health Clerkship	5
PHAS-707	Family Medicine Clerkship	5
PHAS-708	Elective Clerkship	5
PHAS-709	Summative/Professional Seminar	4
	Total Credits:	**105**

Physics

The Department of Physics and Astronomy offers programs leading to the Master of Science and Doctor of Philosophy degrees in physics. It strives for a recognized level of national and international excellence in research and teaching in physics and to assure that students of African American descent and other underrepresented groups are given the opportunity to achieve their fullest potential in physics.

Physics (MS)

Plan A

Course	Title	Credits
PHYS-210	Classical Mechanics I	3
PHYS-211	Classical Mechanics II	3
PHYS-214	Electromagnetic Theory	3
PHYS-215	Electromagnetic Theory II	3
PHYS-220	Quantum Mechanics I	3
	Sub-Total Credits	**15**

Electives

Options: Courses under subject codes PHYS level 200 and above.

Sub-Total Credits	**15**

Thesis Research

*Note: A maximum of 6 thesis research credits may be taken per semester. In addition, a maximum of 6 thesis research credits may be counted toward the credits required for program completion.

Course	Title	Credits
PHYS-300	M.S. Thesis Research	6
	Sub-Total Credits	**6**
	Total credits:	**36**

Plan B

Course	Title	Credits
PHYS-210	Classical Mechanics I	3
PHYS-211	Classical Mechanics II	3
PHYS-214	Electromagnetic Theory	3
PHYS-215	Electromagnetic Theory II	3
PHYS-220	Quantum Mechanics I	3
PHYS-221	Quantum Mechanics II	3
PHYS-222	Statistical Mechanics	3
	Sub-Total Credits	**21**

Electives

Options: Courses under subject codes PHYS level 200 and above

	Sub-Total Credits	**9**
	Total credits:	**30**

Medical Physics (MS)

https://gs.howard.edu/medical-physics-ms

Course	Title	Credits
MPHS-501	Radiological Physics and Dosimetry	3
MPHS-502	Medical Imaging Technology	3-4
MPHS-503	Health Physics and Radiation Safety	2
MPHS-504	Current Topis in Medical Physics	1
MPHS-511	Radiation Therapy Physics	4
MPHS-613	Anatomy and Physiology for Physicists	3
MPHS-505	Ethics and Professional Issues in Academia and Clinical Practice	1
MPHS-517	Clinical Medical Physics Laboratory	2
MPHS-601	Radiation Biology	3
MPHS-602	Technical Documents Review	1
MPHS-500*	Graduate Research	6
	MPHS Approved Electives **(13 credits)**	13
	Total Credits	**42**

Physics (PhD)

https://gs.howard.edu/physics-phd

Course	Title	Credits
PHYS-210	Classical Mechanics I	3
PHYS-211	Classical Mechanics II	3
PHYS-214	Electromagnetic Theory	3
PHYS-215	Electromagnetic Theory II	3
PHYS-220	Quantum Mechanics I	3
PHYS-221	Quantum Mechanics II	3
PHYS-222	Statistical Mechanics	3
PHYS-223	Statistical Mechanics	3
	Sub-Total Credits	**24**

Electives

Options: Courses under subject codes PHYS level 200 and above do not include required courses. **(36 credits)**

PhD Dissertation Research

*Note: A maximum of 12 PhD Dissertation Research credits may be taken per semester. In addition, a maximum of 18 PhD Dissertation Research credits may be taken toward the 72 required for program completion.

Course	Title	Credits
PHYS-400; PHYS 401; PHYS 402; or PHYS 403	Ph.D. Dissertation Research	12
	Sub-Total Credits	**12**
	Total credits:	**72**

Political Science

The study of Political Science at Howard University transcends traditional disciplinary boundaries found at most other institutions of higher learning. At Howard, the study of African American and Black Diaspora politics is a treasured legacy. The Graduate Program prepares students for careers in academia and senior level research or administrative positions in the public and private sectors. We seek to retain and expand the Political Science Department's position as a major source of political scientists concerned with issues impinging on the lives of peoples of African descent.

Political Science (MA)

https://gs.howard.edu/political-science-ma

Political Theory Credits

Required: POLS 232

Course	Title	Credits
POLS-232	Nature and Uses of Political Theory	3
	Sub-Total Credits	**3**

Core Course Credits

Course	Title	Credits
POLS-277	Introduction to Black Politics	3
POLS287	Theories of International Relations	3
POLS-292	Seminar in American Politics	3
POLS204	Approaches to Comparative Politics	3
	Choose one course from the list of courses above.	
	Sub-Total Credits	**3**

Major Field Courses

9 Course Credits Required (Choose 9 credits for Major Field) from one of the fields below.

Course	Title	Credits
	Field A. Black Politics	
	Field B. International Relations	
	Field C. American Government, Politics and Policy	
	Field D. Comparative Politics	
	Sub-Total Credits	**9**

Other Field Course Credits

Other Field Course Credits Required (Choose 9 crs Outside of Minor Field)

	Sub-Total Credits	**9**

Research Tools Course Options

Course	Title	Credits
POLS-217	Methods of Political Science	3
POLS-254	Behavioral Research Methods	3
	Sub-Total Credits	**6**

Directed Research MA Thesis (Optional)

*Note: A maximum of 6 thesis research credits may be counted toward the credits required for program completion.

Course	Title	Credits
POLS-308	Directed Research MA Thesis	6
	Sub-Total Credits	**6**
	Total credits:	**30-36**

Political Science (PhD)

https://gs.howard.edu/political-science-phd

Core Required Courses

Course	Title	Credits
POLS-204	Approaches to Comparative Politics	3
POLS-227	Introduction to Black Politics	3
POLS-287	Theories International Relations	3
POLS-292	Seminar in American Politics	3
POLS-232	Nature and Uses of Political Theory	3

Sub-Total Credits	**15**

Major, Minor, and Other Field Courses

Major, Minor, and Other Field Course Option Below (Must Choose Fourteen Different Courses / 42 Credits):

- Major One Field Course Credits Required (should come from one field below) - 9 credits
- Major Two Field Course Credits Required (should come from one field below) - 9 credits
- Minor Field Course Credits Required (should come from other fields below) - 6 credits
- Other Field Course Credits Required (should come from other fields above) - 12 credits

Course	Title	Credits
	Field A. Black Politics	
	Field B. International Relations	
	Field C. American Government, Politics and Policy	
	Field D. Comparative Politics	
	Sub-Total Credits	**36**

Research Tools Course Options:

Required: POLS-217; POLS-254; and POLS 257

Course	Title	Credits
	Research Tools Course Options	
	Sub-Total Credits	**9**

Doctoral Seminar

Course	Title	Credits
	Doctoral Seminar	
	Sub-Total Credits	**1**

Directed Research PhD Dissertation

*Note: A maximum of 11 credits may be taken per semester for this course. In addition, a maximum of 11 course credits may be counted toward the credits required for program completion.

Course	Title	Credits
POLS-399	Directed Research PhD Dissertation	11
	Sub-Total Credits	**11**
	Total credits:	**72**

Psychology

The Psychology Department, within the graduate school, offers admission to Ph.D. programs in the following specialty areas: Clinical Psychology Specialization, Developmental Psychology Specialization, Neuropsychology Specialization, and Personality Psychology Specialization.

The PhD program in Clinical Psychology Specialization is the first and longest standing program at a Historically Black College or University. Accredited by the American Psychological Association (APA) since 1987, we are dedicated to bringing well-being and health to diverse groups in globally unserved settings by rigorously grounding psychological science in transcultural contexts. Our mission is to train scientist-practitioners from diverse backgrounds to apply their services to understanding and reducing societal problems.

The graduate program in Developmental Psychology Specialization is designed to train students in all phases of the life cycle from infancy through childhood and adolescence to adulthood and aging, with a special emphasis on development among children and adolescents of color. Upon completion of his/her degree, the student is expected to demonstrate both breadth and depth in their chosen area of specialization, and to have a strong background in seminal theoretical

frameworks, research design, and statistical and behavioral assessment.
They should be knowledgeable of current theories and empirical works that continue to influence the field.

The graduate program in Neuropsychology offers didactic and research training in Neuropsychology Specialization at the doctoral level. This program provides students with a scientific understanding of human behavior as it relates to normal and abnormal functioning of the central nervous system. It also introduces students to a wide range of procedures and techniques used to study the neural bases of cognitive, affective, and behavioral processes. This program focuses on the dynamic interplay between the brain and physical health, especially as this relationship is brought to bear on issues related to racial and ethnic health disparities. It is strongly research-oriented, so students are required to initiate a research project in collaboration with a faculty member early in the first year of graduate study. The goal of our program is to equip students for research careers as neuropsychologists in academic and research settings. In the past, our students have been involved in research collaborations in the Departments of Psychiatry, Neurology, Neurosurgery, Pharmacology, Surgery (Bariatric and Transplant), and Human Genetics in the Medical School and Communication Science and Disorders, Biology and Human Performance and Leisure Studies in the Graduate School. Students have also conducted their research with research mentors at the National Institutes of Health.

The Howard University Personality Psychology Specialization Program combines multiple training and research goals. First, we believe that training students in culturally responsive theoretical development along with research design and analysis fundamentals is the most effective way to influence progress in expanding understanding of human personality within the field of Psychology. Second, in addition, our training focus also encompasses engagement in diverse methodologies and methods such as: (1) narrative autobiographical and life story methods; (2) measurement of electrodermal, electromyographic, and cardiovascular activity; (3) scale, questionnaire, and survey design; (4) translational research and knowledge transfer. Third, the program attempts to foster awareness among students of the use of personality theories, methodologies, and approaches within applied contexts to promote health and wellness, emotional intelligence, professional success, intellectual activism, and both racial and gender inclusion and equity.

Psychology (PhD)

https://psychology.howard.edu/graduate

Psychology (PhD) - Clinical Psychology Track

Course	Title	Credits
PSYC-210	Ethics & Issues-Prof Psych I	3
PSYC-280	Clinical Assessment I	3
PSYC-281	Clinical Assessment II	3
PSYC-294	Individual Psychotherapy I	3
PSYC-296	Individual Psychotherapy II	3
PSYC-291	Family Assessment and Therapy	3
PSYC-220	Psychopathology	3
PSYC-233	Neuropsychology	3
PSYC-288	Neuropsychological Assessment	3
PSYC-207	Statistics I	3
PSYC-208	Statistics II	3
PSYC-206	History and Systems	3
PSYC-205	General Research Methods	3
PSYC-315	Complex Case Conceptualization, Consultation, and Supervision	3
PSYC-296	Individual Psychotherapy II	3
	PSYC-270/259	3
PSYC-284	Psych Testing Assess Prac I	0
PSYC-285	Testing Practicum II	0
PSYC-286	Practicum III	0
PSYC-287	2nd Yr Therapy Prac IV	0

PSYC-292	Practicum V	0
PSYC-293	3rd Yr Practicum VI	0
PSYC-390	Clinical Psychology Externship	1
PSYC-391	Clinical Psychology Externship	2
PSYC-392	Clinical Psychology Externship	3
PSYC-600	Clinical Internship	1
PSYC-601	Internship	1
	Sub-Total Credits	**56**

Electives

Options: Graduate Courses level 200 and above

	Sub-Total Credits	**17**
	Total Credits	**73**

Psychology (PhD) - Developmental Psychology Track

NOTES: The Developmental Area is one of the major areas of study within the general Ph.D. Program in Psychology. All courses listed below are part of the curriculum, but students will take different courses based on their major and minor areas of study, as indicated in the specified scheme below.

Course	**Title**	**Credits**
PSYC-203	First-Year Research	1
PSYC-205	General Research Methods	3
PSYC-207	Statistics I	3
PSYC-228	Personality and Social Development	3
PSYC-208	Statistics II	3
PSYC-219	First-Year Research	3
PSYC-225	Cognitive Development	3
	Breadth Requirement	3
PSYC-240	Research Methods in Developmental Psychology	3
	Minor/Breadth Requirement	3
	Upper-Level Statistics Course	3
PSYC-248	Practicum in Developmental Psychology	3
PSYC-260	Race and Racism	3
	Breadth Requirement	3
	Minor Requirement	3
PSYC-235	Topics in Developmental Psychology	3
	Psychology of the Black Experience	3
PSYC-237	Seminar in Developmental Psychology	3
	Minor Requirement	3
PSYC-206	History and Systems	3
	Sub-Total Credits	**58**
Research and Dissertation		
PSYC-400-415	Graduate Research	9
PSYC-500-508	Dissertation	5
	Sub-Total Credits	**14**
	Total credits:	**72**

Psychology (PhD) - Neuropsychology Track

NOTES: The Developmental Area is one of the major areas of study within the general Ph.D. Program in Psychology. All courses listed below are part of the curriculum, but students will take different courses based on their major and minor areas of study, as indicated in the specified scheme below.

Course	Title	Credits
PSYC-207	Statistics I	3
PSYC-205	General Research Methods	3
PSYC-233	Neuropsychology	3
PSYC-203	First-Year Research	1
PSYC-208	Statistics II	3
PSYC-244	Seminar in Neuropsychology	3
PSYC-219	First-Year Research	3
PSYC-271	Psychopharmacology	3
PSYC-260	Race and Racism	3
PSYC-288	Neuropsychological Assessment	3
PSYC-259	Health Psychology	3
PSYC-244	Seminar in Neuropsychology	3
PSYC-206	History and Systems	3
PSYC-236	Topics in Neuropsychology	3
	Minor Requirement	9
	Breadth Requirement	9
	Sub-Total Credits	**58**
Research and Dissertation		
PSYC-400-415	Graduate Research	6
PSYC-500-508	Dissertation	5
	Sub-Total Credits	**14**
	Total credits:	**72**

Religion

Howard University School of Divinity has been outstanding in preparing students to provide professional, academic and spiritual leadership for more than a century.

The Master of Divinity (MDiv) degree program is designed to prepare persons for the ministry of the church as pastors and in related fields, including chaplaincies, Christian education, and staff positions within denominations. The Master of Divinity degree is the basic professional degree for clergy.

The Doctor of Ministry (D.Min.) program is designed for those who wish to engage in an advanced level of preparation for ministerial practice. It is not primarily designed for teaching and research, although effective ministry includes aspects of these disciplines. Its primary goal is the integration of theological and anthropological, missional, and contextual understandings in the context of responsible engagement in ministry. Accordingly, all candidates are expected to be engaged in and to have some experience in some acceptable forms of ministerial practice. This degree program is offered online in a modular format, with courses delivered online.

Master of Divinity (MDiv)

https://divinity.howard.edu/academics/degree-programs/academics-master-divinity

Item #	Title	Credits
	Biblical Studies Courses	12

	Historical Studies Courses	6
	Theological Studies Courses	6
	Ethical and Cultural Studies Courses	2
	Ministry Studies Courses	27
	Core Studies Courses	9
	Electives	3
	Total credits:	**81**

Note: Students in consultation with their advisors, may choose electives from any areas of the curriculum. One elective, if approved by the supervising professor, may be the option of a ministry project or option of research and writing that will produce a thesis or major paper.

Doctor of Ministry (DMin)

Item #	Title	Credits
	Biblical Hermeneutics Courses	3
	Theological Foundations Courses	3
	Professional Ministry	2
	Ethical and Cultural Studies Courses	2
	Doctor of Ministry Seminar I	3
	Doctor of Ministry Seminar II	3
	Research Methodology	3
	Focus Area Elective I	3
	Focus Area Elective II	3
	Focus Area Elective III	3
	Doctor of Ministry Project	2
	Total credits:	**30**

Social Work

The Ph.D. Program in social work is research-oriented and interdisciplinary in nature. It prepares graduates for leadership positions as academicians and researchers, educators, policymakers, and senior-level administrators. Our program provides a focused and highly personalized student learning process with a knowledgeable and caring faculty. Students are challenged to grow as scholars and encouraged to use their experience as social workers to be exceptional in their scientific inquiry and examination.

The Master of Social Work (MSW) program at Howard University empowers graduates with the skills and expertise needed for advanced social work practice and leadership. Whether your passion is in working directly with individuals, families, and small groups, or in creating lasting change through community, administration, and policy (CAP) practice, our MSW program provides you with the knowledge and hands-on experience to make a significant impact.

Social Work (on-campus and online) MSW

https://socialwork.howard.edu/admissions/master-social-work-programs

Required Courses

Item #	Title	Credits
SWDS-101	Social Work with Individuals, Families & Groups	3
SWFI-204	Agency-Based Education I	3
SWHB-205	Human Behavior & Social Environment I	3
SWPS-215	Social Work & the Black Perspective	3
SWDS-306	Direct Practice Assessment	3

SWPS-311	Social Work Practice with Communities & Organizations	3
SWFI-205	Agency-Based Education II	3
SWRS-204	Research Methods & Data Analysis	3
SWPS-216	Advocating for Oppressed & Marginalized Communities	3
	Sub-Total Credits	**27**

Field of Practice I & II

Only 1 Field of Practice course can be taken per semester.

Course	Title	Credits
	Field of Practice Specialization(s)	
	Sub-Total Credits	**6**

Electives

Course	Title	Credits
	Elective	
	Sub-Total Credits	**9**

Specialized Year

Note: Students must complete all the courses in one Direct Practice or Community, Administration, and Policy Practice

Course	Title	Credits
	Sub-Total Credits	**18**
	Total credits:	**60**

Social Work (PhD)

https://gs.howard.edu/social-work-phd

Course	Title	Credits
SWPH-603	Proseminar - The Individual	3
SWPH-407	Hist & Phil of Soc Welfare	3
SWPH-500	Overview of Res Methods	3
SWPH-604	Proseminar - Small Groups	3
SWPH-501	Quantitative Methodology	3
SWPH-605	Proseminar - Communities & Organizations	3
SWPH-503	Applied Methodology	3
SWPH-606	Proseminar - Social Work Education	3
SWPH-506	Research Design	3
	Sub-Total Credits	**27**

Elective Courses

Course	Title	Credits
	Elective Courses (Social Work PhD)	9
	Sub-Total Credits	**9**

Special Interest Courses

Options:

Course	Title	Credits
	Special Interest Courses	33
	Sub-Total Credits	**33**

Dissertation

*Note: Only one dissertation course can be taken per semester.

Course	Title	Credits
SWPH-807	Dissertation	1
SWPH-808	Dissertation	2
	Sub-Total Credits	**3**
	Total credits:	**72**

Sociology

The Department of Sociology and Criminology is a vibrant and diverse department offering both the M.A. and Ph.D. degrees in Sociology. In the Department, the Master of Arts (M.A.) program serves primarily as the first graduate degree for students seeking academic careers, while the Ph.D. degree is ideal for high level social science positions in the public and private sectors. Students seeking careers in middle level social science positions in the government or private sectors may pursue the M.A. program as a terminal degree.

- A maximum of 3 thesis credits may be taken per semester. In addition, a maximum of 6 thesis credits may be counted towards the credits required for program completion.
- A maximum of 3 research credits may be taken per semester. In addition, a maximum of 6 thesis credits may be counted towards the credits required for program completion.
- Howard University graduate students are required to be continuously registered in the doctoral program until they have advanced to candidacy at which time they become eligible to enroll in MA Thesis courses.
- Independent Masters Thesis Research courses are not required; they are independent study courses for students to develop their dissertation proposals and dissertation manuscript under the direction of their dissertation advisor if they have completed the MA Thesis required credit hours.

Sociology (MA)

https://gs.howard.edu/sociology-ma

General Sociology & Theory Credits Required

Course	Title	Credits
SOCI-300	Sociology Theory I	3
SOCI-301	Sociology Theory II	3
SOCI-392	Perspectives in Sociology	3
	Sub-Total Credits	**9**

Methods & Statistics Credits Required

Course	Title	Credits
SOCI-310	Sociological Research I	3
SOCI-311	Sociological Research II	3
SOCI-219	Advanced Statistics I	3

	Sub-Total Credits	**9**

Electives

Options: Courses under subject code SOCI at level 200 and above)

Non-Thesis Option - 12 credits total

Thesis Option - 6 credits total

	Sub-Total Credits	**6-12**

Thesis

Course	Title	Credits
SOCI-995	MA Thesis	3
SOCI-996	MA Thesis	3
	Sub-Total Credits	**6**

Independent Research

Optional:

Course	Title	Credits
SOCI-891	Independent Research	3
SOCI-998	PhD Dissertation	3
	Sub-Total Credits	**6**
	Total credits:	**30**

Sociology (PhD)

https://gs.howard.edu/sociology-phd

General Sociology & Theory Credits Required

Course	Title	Credits
SOCI-300	Sociology Theory I	3
SOCI-301	Sociology Theory II	3
	Sub-Total Credits	**6**

Methods & Statistics Credits Required

Course	Title	Credits
SOCI-310	Sociological Research I	3
SOCI-311	Sociological Research II	3
SOCI-219	Advanced Statistics I	3
SOCI-319	Advanced Statistics I	3
	Sub-Total Credits	**12**

Electives in Research and Methodology Credits Required

Course	Title	Credits
SOCI-891	Independent Research	3
SOCI-988	Independent Research	3
	Sub-Total Credits	**6**

Social Inequality - Required Area of Specialization Credits Required

Course	Title	Credits
SOCI-250	Social Stratification	3
SOCI-251	Sociology of Poverty	3
SOCI-460	Analysis of Race Relations I	3
SOCI-461	Analysis of Race Relations II	3
	Sub-Total Credits	**12**

Optional Area of Specialization: Medical Sociology:

Course	Title	Credits
SOCI-283	Intro. to Medical Sociology	3
SOCI-484	Health Services Research	3
SOCI-386	Social Epidemiology	3
	Sociology Elective Options (1)	3
	Sub-Total Credits	**12**

Optional Area of Specialization: Criminology:

Course	Title	Credits
SOCI-370	Criminological Theory	3
SOCI-471	Race, Ethnicity, and Crime	3
	Sociology Elective Options (2)	3
	Sociology Elective Options (2)	3
	Sub-Total Credits	**12**

Outside/Cognate Minor Credits Required

Options: Courses at level 200 and above with advisor/faculty approval.

	Sub-Total Credits	**9**

PhD Dissertation Research (Optional)

*** Howard University graduate students are required to be continuously registered in the doctoral program until they have advanced to candidacy at which time they become eligible to enroll in PhD Dissertation courses. PhD Dissertation Research courses are not required, they are independent study courses for students to develop their dissertation proposal and dissertation manuscript under the direction of their dissertation advisor if, and only if, they have completed the required hours for the PhD Dissertation. A maximum of 3 dissertation research credits may be taken per semester. In addition, a maximum of 6 dissertation research credits may be counted towards the credits required for program completion.

Course	Title	Credits
SOCI-753	PhD Dissertation Research	1
SOCI-984	PhD Dissertation Research	1
SOCI-985	PhD Dissertation Research	3
SOCI-989	PhD Dissertation Research	3
	Sub-Total Credits	**8**

PhD Dissertation Credits Required

***** A maximum of 3 dissertation credits may be taken per semester. In addition, a maximum of 6 dissertation credits may be counted towards the credits required for program completion.

Course	Title	Credits
SOCI-998	PhD Dissertation	3
SOCI-999	PhD Dissertation	3
	Sub-Total Credits	**6**

Electives

Options: Courses under subject code SOCI at level 200 and above with advisor/ faculty approval)

***Only one (1) reading course and one (1) independent course (i.e., PhD Dissertation Research) may be used as electives in Sociology.

Sub-Total Credits	**15**
Total Credits	**78**

Women's Studies

The Graduate Certificate in Women's Studies is an exciting educational opportunity offered by the Graduate School for promising students and other individuals to think and to speak critically; to plan quality research; and to contribute to policy discussions on topics concerning women. Housed at Howard University, the program has the advantage of highlighting the lives and contributions of women of color and of diverse cultures. Women's Studies is not simply a study of women; it also involves critical reflection on the process of knowing and on the established understandings of history, literature, society, the arts, and the sciences. Reflecting the Mission of the University, the emphasis is on gathering and using information to enhance the quality of women's lives and to solve the social problems facing women, particularly women of color, in the United States and throughout the world.

Women's Studies (certificate)

https://gs.howard.edu/academics/graduate-certificate-programs/womens-studies-graduate-certificate

Course	Title	Credits
WOMS-500	Introduction to Women's Studies	3
WOMS-501	Internship in Women's Studies	3
	Women's Studies Electives	12
	Total credits:	**18**

Policies

Howard University Student Code of Conduct

School and College Policies

Graduate School: Academic Regulations | The Graduate School

- African Studies: Graduate | Howard University Department of African Studies
- Applied Data Science and Analytics: Data Science and Analytics | Howard University Provost's Office, Applied Data Science & Analytics (M.S.) | Howard University Programs
- Atmospheric Sciences: Academic Regulations | The Graduate School
- Biology: Biology_Graduate_Student_Handbook
- Biomedical and Chemical Engineering: Department of Chemical Engineering | College of Engineering and Architecture

- Chemical Engineering (MS): Department of Chemical Engineering | College of Engineering and Architecture
- Chemistry: Academic Regulations | The Graduate School
- Civil and Environmental Engineering: Department of Civil and Environmental Engineering | College of Engineering and Architecture
- College and University Faculty Preparation Certificate: Academic Regulations | The Graduate School
- Communication, Culture, and Media Studies: Academic Regulations | The Graduate School
- Communication Sciences and Disorders: Academic Regulations | The Graduate School
- Computer Science: Graduate Computer Science Handbook
- Counseling Psychology: Part III: Graduate Programs | School of Education
- Cybersecurity Certificate: Cybersecurity | Graduate Certificate | The Graduate School
- Economics: Graduate Program | Howard University Department of Economics
- Educational Psychology: Part III: Graduate Programs | School of Education
- Electrical Engineering and Computer Science: Department of Electrical Engineering and Computer Science | College of Engineering and Architecture
- English: Graduate Studies | Howard University Department of Literature and Writing
- Higher Education and Leadership Policy: Part III: Graduate Programs | School of Education
- History: Graduate Bulletin
- Interdisciplinary Biomedical Sciences: Biomedical Sciences (Ph.D.) Program Details | The Graduate School
- International Studies Certificate: Academic Regulations | The Graduate School
- Mathematics: Graduate Program | Howard University Department of Mathematics
- Mechanical Engineering: Department of Mechanical Engineering | College of Engineering and Architecture
- Medical Physics: Medical Physics Program - Main Page | Howard University Physics Department
- Nutritional Sciences (All Graduate Programs): STUDENT MANUAL
- Pharmaceutical Sciences: MS & Ph.D. Pharmaceutical Sciences Graduate Program | Howard University College of Pharmacy
- Physics and Astronomy: Graduate Program | Howard University Physics Department
- Political Sciences: Political Science | Howard University Department of Political Science
- Public Health (MPH): Public Health (MPH) Program Details | The Graduate School
- Psychology (Clinical, Developmental, Personality, Neuropsychology, Social): Department of Psychology | Howard University Psychology Department
- School Psychology: Part III: Graduate Programs | School of Education
- Sociology and Criminology: Academic Regulations | The Graduate School
- Social Work: Social Work (Ph.D.) | The Graduate School

College of Dentistry: Homepage | Dentistry

College of Engineering and Architecture: College of Engineering and Architecture | College of Engineering and Architecture

Chadwick A. Boseman College of Fine Arts: Homepage | Chadwick A. Boseman College of Fine Arts

College of Medicine: Homepage | Howard University College of Medicine

College of Nursing and Allied Health Sciences: Home | Howard University College of Nursing and Allied Health Sciences

College of Pharmacy: Homepage | Howard University College of Pharmacy

School of Business: Homepage | Howard University School of Business

Cathy Hughes Schools of Communications: Homepage | The Cathy Hughes School of Communications

School of Education: Homepage | School of Education

School of Law: Howard University School of Law | Howard University School of Law

School of Social Work: Homepage | Howard University School of Social Work

Resources

Student Resources and Services

Office of Graduate & Professional Admissions https://admission.howard.edu/graduate
Student Health Forms: studenthealthforms@howard.edu | (202) 806-7540.
Title IX: Title IX Office | Howard University | (202) 806-2550 | Johnson Admin. Bldg., Suite G06.
IRB/ORRC: https://www.orrchoward.com (program deadlines and compliance).
Consortium (CUWMA): https://howard.edu/academics/exchange/cuwma
Office of the Bursar: bursarhelp@howard.edu
Graduate Student Affairs: gs.studentaffairs@howard.edu
Office of Graduate Studies: GraduateStudies@howard.edu
Office of the Registrar, Scheduling: scheduling@howard.edu
International Student Services: International Student Services | Howard University Provost's Office
Transportation Services: https://auxiliary.howard.edu/services/parking-transportation/transportation-services
Dining Services: Services | Office of Auxiliary Enterprises
Office of Military & Veterans Services (OMVS): Office of Military & Veterans Services (OMVS) | Howard University Student Affairs
Office of the Bursar: Office of the Bursar | Howard University | Student Financial Services
Office of Career Services: Office of Career Services | Howard University School of Law
Office of Student Services: Office of Student Services | Howard University Student Affairs
Student Financial Services: Homepage | Howard University | Student Financial Services
Office of Student Conduct & Community: Office of Student Conduct & Community Standards | Howard University Student Affairs
University Counseling Services: https://studentaffairs.howard.edu/wellness/get-counseling-services
Wellness and Student Health: Wellness | Howard University Student Affairs
Office of Residence Life & University Housing: Office of Residence Life & University Housing | Howard University Student Affairs
Student Government: Student Government | Howard University Student Affairs
HUSB Student Organizations: HUSB Student Organizations | Howard University School of Business

Howard University Libraries

Founders Library: Homepage | Founders Library

- Information for Graduate Students: Information for Graduate Students | Founders Library
- The Moorland-Spingarn Research Center: Homepage | Howard University Arts and Sciences

The Wayne A. I. Frederick Undergraduate Library: The Wayne A. I. Frederick Undergraduate Library | Founders Library
Howard University School of Divinity Library: Homepage | Divinity Library
The Louis Stokes Health Science Library: Home - Louis Stokes Health Sciences Library - LSHSL at Louis Stokes Health Sciences Library - Howard University
Vernon E. Jordan Law Library: HUSL - Welcome to the Library - HUSL Library at Howard University School of Law

Course Descriptions

Academic Reinforcement

ACAD-022: Pre-Calculus

Pre-Calculus weaves together previous study of algebra, geometry, and mathematical functions into a preparatory course for calculus. The course focuses on mastery of critical skills and exposure to new skills necessary for success in subsequent math courses. Throughout the course, Common Core standards are taught and reinforced as the student learns how to apply the concepts in real life situations. Topics include fundamental concepts of Algebra, functions and graphs, polynomials and rational functions, exponential and logarithmic functions, trigonometric functions, analytic trigonometry, topics in trigonometry, systems of equations and inequalities, matrices and determinants, conic sections and analytic geometry, sequences, induction, probability, and an introduction to Calculus. Pre-Calculus Part I includes six multiple choice lesson exams and a midterm written exam that requires the student to demonstrate understanding by showing work.
Credits: 4

Accounting

ACCT-306: Business Law II

This course has been designed to introduce students to our legal system by exploring the nature of legal relationships in business with a focus on the government regulation of business.. Balance the concepts of ethics and the law with financial reality in implementing business decisions.
Credits: 3

Accounting (EMBA)

XACC-500: Accounting for Executives

An in-depth study of the application of accounting methods to management problems. The course is designed to allow students to gain knowledge, insights, and analytical skills related to the processes managers use in designing, implementing, and using planning and control systems to implement strategies. Topics covered include transfer pricing budget preparation, management compensation, motivation, and goal congruence.
Credits: 3

Accounting (GR)

GACC-500: Financial Accounting

This course focuses upon financial accounting information relating to profit-oriented business organizations.
Credits: 3

GACC-501: Management Accounting

This course provides students with an understanding of the concepts and techniques of management accounting.
Credits: 3

African Studies

AFST-102: Science, Technology and African Development

The course adopts an interdisciplinary approach to assisting students in understanding the sociopolitical, cultural and environmental dimensions of science and technology in the African World. Introducing the student to broad interdisciplinary perspectives on the social, historical and institutional underpinnings of science and technology in their global and African World contexts, the course offers insights into the ancient and contemporary dynamics of the phenomenon. Showing the collective contributions of all people as well as the shared experiences of millions engaged in agricultural, artisan and construction endeavors, the course assists the student in understanding the conceptual, civic and policy frameworks for harnessing the will and talents of young people in a rapidly changing world.
Credits: 3

AFST-107: Social Media and Political Change in Africa

This is an interdisciplinary course examining the connections between the youth, education, revolutions in technology and transformations in politics and society at individual, national and global levels. The course aims at using social media as a heuristic device for gaining a better grasp of the drivers of change, the role of technology as well as the power of ideas, youth or organization in building a better world.
Credits: 3

AFST-110: African Development and Underdevelopment

The topic of African development and underdevelopment is complex. To answer the question of how authentic and endogenous socioeconomic development can be achieved throughout the African continent, publications by renowned scholars in the field of development such as Amartya Sen, Joseph Stiglitz, and Ha-Joon Chang along with news programs from major global media networks (Al-Jazeera, France24, and Deustche-Welle TV etc.) will be examined and discussed throughout the course. In the process, students will become familiar with all the important international organizations and media outlets in addition to developing critical thinking, writing, and analytical skills.
Credits: 3

AFST-200: Independent Study

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

AFST-201: Independent Study

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

AFST-202: Independent Study

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

AFST-211: Scope and Methods of African Studies

This course reviews the evolution of the field of African Studies over the past two centuries. It also exposes students to approaches to research methodology and trains them in designing a research proposal which can lay the basis for a M.A. thesis or PhD dissertation

Credits: 3

AFST-212: Theory in African Studies

Theory in African studies is adopted in its dual role as a universal body of ideas, accumulated wisdom as well as a branch of the human tree of cognition with distinct characteristics organically connected to the larger whole. A survey of the universal foundations of theory is undertaken with the goal of showing the multiple pathways in the flow of knowledge. The course offers different viewpoints in terms of not only the debates among mainstream social science schools of thought but also the emerging paradigms of inquiry as the critical approaches subsumed in post-modernist, post-colonial and critical theories. The course attempts to introduce the student to the universal and particular dimensions of thought systems with the main goal of helping the student grow as an independent scholar synthesizing the best traditions of Western and African civilizations.
Credits: 3

AFST-225: Public Policy and Development

The historical trajectory of the African development policy discourse through successive epochs: the early post-independence days of national developmentalism, through orthodox (growth-oriented), meliorist (egalitarian), and neo-liberal (structural adjustment) paradigms to progressivist alternatives. The ultimate objective is to craft an endogenous framework of people-centered development for Africa.
Credits: 3

AFST-229: Planning for Development in Africa I

General principles of development planning, including models, theories and approaches with African case studies.
Credits: 3

AFST-231: Women and Development in Africa

This course is a study of African women's traditional and contemporary roles in Africa's social, political and economic development; identifies paradigm changes in women's economic, social and political roles and participation and the sources of these changes over historical time: study post-colonial African women's national and regional movements; studies African women's involvement in international and regional bodies such as the United Nations and its specialized and regional agencies and other networks to effect changes in general African general development paradigms and women's role therein.
Credits: 3

AFST-232: Gender Theory and Practice in Africa

This course is a systematic study and analysis of uniqueness of traditional African gender philosophies, theories, and practices within the family, community and society; study the cosmological and social privileging of social and economic achievements and acquisition of wisdom as determinants of individual's role and status in society; compares authentic African system of gender and social construction against the rigid privileging of biology as the sole determinant of people's role, status, and pattern of belonging and participation in society and economy.
Credits: 3

AFST-234: Globalization in the African World

The course examines one of the most significant phenomena of our time, globalization, which is a process that goes back to centuries of interlinking developments among nations and civilizations. The course takes the student through the global, historic and contemporary journey of the compression of time and space and the shared consciousness of the world's billions made possible by the instant images of satellites TVs, cell phones and overflow of goods, services, technologies and ideas. A critical analysis of the dynamics and issues from the vantage points of opposing views is encouraged. Considerable attention is paid to enabling students to benefit from the theoretical and research literature on the areas as well as insights into specific country, regional and issue-based case studies.
Credits: 3

AFST-237: Africa and International Law and Organizations

A study of strategies advanced by African states to change the world system by using international organizations of influencing their decisions to address issues of concern to Africa.
Credits: 3

AFST-240: Rural Development

This course is a historical and political study of rural development and underdevelopment in Africa; policy and modeling of rural development and patterns of allocation of essential resources for rural development; comparative study of efficiencies and inefficiencies in rural development outcomes in different African regions and understanding the sources of the observed disparities; study of alternative, authentic African models and theories for sustained rural development.
Credits: 3

AFST-242: Development Policy and Administration

Determinants of development policymaking process, the organizational framework of policy implementation and administrative performance. Case studies of selected African countries.
Credits: 3

AFST-243: Issues of Health Policy and Development in Africa

This is a seminar for graduate students with an interest in issues of health and disease in Africa, particularly as they pertain to the continents prospects for development. The aim of this course is to give students a broad understanding of the state of health in Africa, historical factors that contribute to contemporary patterns of ill-health and disease in Africa, and introduce students to a series of conceptual approaches to health and development in Africa
Credits: 3

AFST-244: Urban Development in Africa

An examination of the political economy of urbanization in Africa, including the economic structure, spatial organization, and politico-administrative framework of African urban life.
Credits: 3

AFST-245: Foreign Policy-Making in African States

Study of the determinants, organizational framework, and processes involved in developing foreign policy in African states.
Credits: 3

AFST-270: Conflict Resolution in Africa

This course examines the main sources of wars in Africa. Some studies have reduced the causes of war to three main ones, namely ethnicity, religion, and economics. This minimum objective of this course, then, will be to investigate the extent to which each one of the cited causes has contributed to the conflict of each selected case study.
Credits: 3

AFST-290: History of South Africa

This seminar exposes students to major debates in the history of South Africa from the 19th Century to the present.
Credits: 3

AFST-293: History of African Philosophy

This seminar examines the main ideas of key thinkers within the Africana philosophical tradition. It is structured around thematic units designed to give a foundational and advanced understanding of the development of Africana thought on a series of major philosophical topics: ontology, epistemology, race, gender, science, logic, monetary economics, and applied ethics, and the (in)commensurability of Africana and Western answers offered on these topics, and the multiplicity of methods employed in Africana philosophical thought.

Credits: 3

AFST-300: Thesis

This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest.

Credits: 6

AFST-301: Thesis

This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest.

Credits: 6

AFST-302: Thesis

This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest.

Credits: 6

AFST-304: Africa in World Affairs

This is a general introduction to Africa in World Affairs. Topics include Africa's participation in the political, economic, and cultural system. It analyzes some strategies advocated by African scholars to demarginalize Africa in world affairs.

Credits: 3

AFST-305: Governance in Africa

The main objective of this course is to examine/analyze the elements to good governance, and to study their implication in an African environment. It explores strategies to improve governance in the continent. Evidently, each African country may have special urgency in implementing the above key elements. Thus, a country case study becomes imperative

Credits: 3

AFST-310: Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D. See note on page 577 related to dissertation hours.

Credits: 9

AFST-322: Language, Literature and Arts

An examination of language policy and practices and the various forms of cultural and creative practice in contemporary Africa and their significance as a crucial resource in contemporary discourses of socio-economic transformation and development in Africa. The ways in which these forms of cultural practice engage issues of public policy, language, gender, class, ethnicity, tradition, modernity, democracy, governance, globalization and human rights will be emphasized.

Credits: 3

AFST-323: Literature of South Africa

In depth look at the poetry and prose of three South African authors from both a thematic and formal

perspective. Examines the strengths and limitations of art as an instrument of struggle.
Credits: 3

AFST-324: Oral and Written Literature and Film in Africa

An examination of the relationship between these two modes of artistic and political expression in Africa: their style, content and effectiveness in raising social consciousness regarding development.
Credits: 3

AFST-325: Oral Traditions and Written Literature

Survey of oral narrative genres from selected African societies, their form content, and function in society and how these genres have influenced African writers.
Credits: 3

AFST-327: Women in African Literature

A thematic and formal examination of the image and role of women in society as developed in the Africa novel and short story.
Credits: 3

AFST-328: Film and History in Africa and the Diaspora

An exploration of the ways filmmakers engage, revise, reconstruct and revision aspects of the distant and recent past in Africa and the Diaspora, and how the past speaks to the present and the future
Credits: 3

AFST-356: Education and Social Change in Africa

This course studies the theories of education and their implications of development of relevant and effective education programs with goals and mission targeting the needs of a society at particular times; links this study with the constraints and opportunities of African pre-colonial education experiences; cases studies of specific African educational systems to identify their empirical strengths and weakness seen against guiding education theories and philosophies; develops concrete propositions that can help fix identified African educational deficits.
Credits: 3

AFST-357: Migrant Remittances and African Development

Sustainable and equitable development in Africa critically depends on the nature of inter-causal linkages that can be forged between international migrations, mobilization of Diasporas in North America and Europe, and migrant remittances. Such remittances constitute an important source of external finance and foreign exchange for African Development in terms of the relevant impacts on households, communities, national and regional spaces.
Credits: 3

AFST-360: NGOs and Africa

The course is designed to help the student in developing a significant understanding of the world of NGOs. The theories and concepts underpinning the purposes, modalities of operations, systems of mobilizations and the degrees to which the stated high goals are faithfully implemented are surveyed and analyzed. The course focuses on both the visions, ideas and skills NGOs have brought to practically all sectors of society in developing and industrialized countries. All the intermediate steps of NGO goals, mobilizations, activities and implementation mechanisms as well as the concrete results registered by the new global phenomenon are studied and discussed with the purpose of linking the universal and regional/national interplay of NGOs and Africa's quest for dignity, democracy and sustainable development.
Credits: 3

AFST-372: African Political Thought

This course examines the writings of a select group of African political thinkers and actors whose ideas have influenced and still continue to influence, a large number of Africans and people of African descent aboard.
Credits: 3

AFST-500: Field Research in African Studies

Interdisciplinary introduction to the study, research, and interpretation of historical, cultural, social and political knowledge of African American, African, and Caribbean peoples examining contemporary black identities, politics, and culture, particularly focusing on the role and place of blacks in modern American cities through exploration of international migrations, race relations, and 20th-century cultural movements, including civil rights, social protest music

Credits: 3

Afro-American Studies

AFRO-005: Afro-Am. Studies

This course offers an interdisciplinary introduction to important historical, political, cultural, and artistic issues concerning people of African descent in the United States. Emphasis will be placed on developing an understanding of the role of protest and resistance in African American history

Credits: 3

Anatomy

ANAT-173: Neurobiology

Integrated anatomy and physiology course focusing on head and neck systems, and especially neuroanatomy. In-depth investigations and analyses of human physiology and pathophysiology. Human cadavers will be dissected to observe macroscopic, microscopic and functional anatomy. In laboratory set-ups and teaching sessions, students will be introduced to the functional principles of sensation, perception, cognition, behavior and related motor responses.

Credits: 6

ANAT-189: Research

Research training in neurobiology, aging, paleobiology, cell biology, developmental biology, evolutionary biology, and gross anatomy. Credit hours are determined by scheme. MS requires 2 hours, and PhD requires 4. Students may take up to 4 hours per semester but will be charged per credit hour. No more than 2 credits will go toward degree requirements for the MS, and no more than 4 hours will go toward the requirements for the PhD. See note on page 577 related to research courses.

Credits: 1-12

ANAT-191: Evolution Life History

This course provides an overview of the mechanisms and processes of change at the population, organismal, cellular, and molecular levels. It also provides an overview of the history of Earth and its biota including geological time, fossils, and man.

Credits: 3

ANAT-195: Vertebrate Neuroanatomy

This course gives beginning graduate students a foundation in neuroanatomy, which aids in understanding and conducting neuroscience research. Focus is on (1) the anatomy of the brain and spinal cord in sheep, human, and rodent (2) the location of selected subregions, and (3) the fine structure (neuronal morphology and connections) of selected brain regions. Also included to a limited extent is neuroanatomy of other species (e.g. birds), neurotransmitter systems, principles of stereotaxic surgery, and evidence of function from experimental and clinical neuroanatomy. A sheep brain lab accompanies the course.

Credits: 2

ANAT-196: Advanced Neurobiology Seminar

Seminar on current topics in neurobiology.
Credits: 2

ANAT-197: Introduction to Anatomical Research I

An introduction to scientific research, specifically emphasizing current research projects carried out within the Anatomy Department.
Credits: 2

ANAT-198: Introduction to Anatomical Research II

A continuation of ANAT-201-197 focusing on current research projects carried out within the Anatomy Department. Students will give their own research presentations and be evaluated in both verbal and written formats.
Credits: 2

ANAT-202: History and Cell Biology

Examine the microscopic structure, ultrastructure and cell biology of tissues and organs of the body. Digital histological slides of various anatomical regions/organs of the human body will be utilized to learn specific details, unique features, and functional significance.
Credits: 5

ANAT-203: Topics in Develop Biology

Emphasizes morphological and biochemical interactions in developing organisms.
Credits: 2

ANAT-204: Human Evolution

characteristic anatomical and physiological features and functional significance or specializations of those features. This course requires mandatory attendance and in-depth class participation for all students. Scientific articles will be read and discussed, with students expected to detail experimental breakthroughs and shortfalls.
Credits: 3

ANAT-205: Topics in Evolutionary Biology

Explores the evolution of vertebrates throughout history, developmental changes, taxaspecific features and functional significance of those features. This course covers various topics of current interest in evolutionary biology, including theoretical developments, research methodology, field techniques, and a survey of the current literature.
Credits: 1

ANAT-206: Human Gross Anatomy Lecture

Course description: Human Gross Anatomy provides advanced graduate students with in-depth anatomical training.....Using cadaver-based dissection, students experience the best method by which to learn about the structures of the human body, their integration, and, most importantly, variation among humans
Credits: 4

ANAT-207: Human Gross Anatomy Lab

This course will provide students with an intensive survey of the structures of the human body with emphasis on gross and histological study of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems
Credits: 4

ANAT-208: Topics in Anatomical Research

A series of guest lecturers present their recent research findings. This course requires mandatory attendance and in-depth class participation for all students. A large number of scientific articles will be read and discussed, with students expected to detail experimental breakthroughs and shortfalls. Can be taken twice for credit as the lecturers are significantly different each semester offered. See note on Special Topics (p. 577)
Credits: 1

ANAT-209: Comp Primate Anatomy

This course is an exploration of the relationship between primate anatomical form and function from an evolutionary perspective. The course is designed to demonstrate how the primate body form is adapted to its many functions, with an emphasis on adaptations to diet and locomotion
Credits: 3

ANAT-210: Anatomy of Head and Neck

This course entails the study of regional and systemic anatomy through a coordinated didactic, case-based presentations and experiential learning. It provides a foundation for understanding the anatomical basis of surgical procedures of the head and neck, associated complications and disease processes
Credits: 4

ANAT-211: Anthropology

A comprehensive examination of the human experience. Major topics include the relationship between biology and culture; cultural diversity; and the cultural evolution of communication, kinship, religion, art, political organization, and foodways.
Credits: 2

ANAT-212: Topics in Cell Biology

Investigates various topics relating to recent findings in modern cell biology.
Credits: 2

ANAT-213: Advanced Anatomy

Study of the gross anatomy and developmental anatomy of the human body with focus of organs in thorax and abdomen.
Credits: 4

ANAT-300: Dissertation Writing PhD

Only for Ph.D. students ready to defend. Prior to registering, students must receive permission from Anatomy Graduate Program Co-Directors. Please see pg. 577 for additional information on dissertation hour distribution.
Credits: 1-12

ANAT-301: Musculoskeletal Anatomy

Study of the gross anatomy and development of the human body. Human cadavers will be dissected to observe macroscopic and microscopic anatomical features.
Credits: 6

Arabic

ARAB-1: Arabic I

Develops the four communicative language skills: listening, speaking, reading, and writing. Stresses communication skills and emphasizes the links between language and culture, using mainly Modern Standard

Arabic, with exposure to Egyptian Colloquial Arabic.
Credits: 3

ARAB-2: Arabic II

Develops the four communicative language skills: listening, speaking, reading, and writing. Stresses communication skills and emphasizes the links between language and culture, using mainly Modern Standard Arabic, with exposure to Egyptian Colloquial Arabic.
Credits: 3

ARAB-3: Arabic III

Develops the four communicative language skills: listening, speaking, reading, and writing. Stresses communication skills and emphasizes the links between language and culture, using mainly Modern Standard Arabic, with exposure to Egyptian Colloquial Arabic.
Credits: 3

ARAB-4: Arabic IV

Develops the four communicative language skills: listening, speaking, reading, and writing. Stresses communication skills and emphasizes the links between language and culture, using mainly Modern Standard Arabic, with exposure to Egyptian Colloquial Arabic.
Credits: 3

Architecture

ARCH 100: Architecture Freshman Seminar

A seminar course which introduces first year students to a range of areas of interest, expertise, and career paths within the architecture profession.
Credits: 1

Prerequisites:

None.

ARCH 160: Foundations in Design I

A studio course that introduces students to architectural representation. Orthographic projections, descriptive geometry, contours, paraline drawings, shade and shadows and model making are presented and applied.
Credits: 5

Prerequisites:

None.

ARCH 161: Foundations in Design II

This course develops the techniques introduced in Foundations in Design I and introduces freehand/estimated perspective, presentation composition and basic rendering techniques.
Credits: 5

Prerequisites:

ARCH 160.

ARCH 199: Design I

This first course of the eight-semester design sequence develops principles of architecture in a studio setting. Projects explore notions of space definition, landscape intensification and transformation, space organization and elementary construction technologies.
Credits: 6

Prerequisites:

ARCH 100; ARCH 150 or ARCH 160: ARCH 151 or ARCH 161.

ARCH 200: Design II

Continuation of Design I. The level of complexity of the projects is increased. Issues of intention and image are introduced. Natural, suburban and urban sites are used to broaden student awareness of the environment. Ordering principles are related to function and to site conditions.
Credits: 6

Prerequisites:

ARCH 199.

ARCH 201: Design III

Reinforces the concepts introduced in Design I and II and explores the impact of function, structure, construction, site conditions and climate on architectural form.
Credits: 6

Prerequisites:

ARCH 200.

ARCH 202: Design IV

Continuation of Design III. Explores the impact of programming function, structure construction site conditions, and the environment on architectural form.
Credits: 6

Prerequisites:

ARCH 201.

ARCH 203: Design V

Reinforces work of earlier design studios and explores issues of more complex building types and urban design.
Credits: 6

Prerequisites:

ARCH 202; ARCH 502; ARCH 522; ARCH 651.

ARCH 204: Design VI

Continuation of Design V. Exploration of issues of more complex building types, urban design, and building design comprehensive needs.
Credits: 6

Prerequisites:

ARCH 203; ARCH 951.

ARCH 208: Design Thinking and Making

The course introduces students to the process of thoughtful design through investigation and making. The course is predicated on the concept that establishing a solid methodology on the practice of making and thinking in non-linear, abstract ways can facilitate the process of designing virtually anything. While every design challenge is unique, applying a deeper understanding of how to approach the question/s being asked is of paramount importance. This course focuses on how to approach an abstract idea and make it concrete by marrying the theories of conceptualization and investigation with the physical acts of making. The goal is to have students create a systematic methodology that can be applied to virtually all design challenges at every level of studio and beyond. The class will be comprised of lectures, readings, discussions and the application of ideas into physically made objects as well as training on special equipment, tools and software will form an

integral part of the course.
Credits: 3

Prerequisites:

None.

ARCH 219: Contemporary Issues in Architecture

This course is part of the History/Theory set of professional electives. Through a series of readings, debates and open discourse, the course will examine the evolution of contemporary architectural thought and teach students how to take a critical position on professional practice and issues that affect design today including sustainability, phenomenology, ethical responsibility and roles of the architect in the world in the 21st Century. Specifically, the course will focus on four sequential areas of study: 1) Historical Perspectives to address how we arrived to today and to understand your worldview; 2) The Tenets of Good Design from the aesthetics of color exploration to sustainability; 3) Phenomenology to examine Sensory and Emotional Explorations; and 4) Comparative Dialogues to explore where Architecture is going in the Post-Covid-19 era.
Credits: 3

Prerequisites:

ARCH 301, ARCH 302.

ARCH 232: Women in Architecture and Design

Lecture course that focuses on the contribution of women to architecture and design. Focuses on African American architects in the United States and also introduces a broader context of practitioners around the world.
Credits: 3

Prerequisites:

Successful completion of first year.

ARCH 233: The Black Architect: A Historical Perspective

Seminar/independent research course that focuses on the history of Black architects and architecture in the United States to introduce students to an overview of the history, practice and influence of Black architects from the antebellum years through reconstruction, modern and present contemporary periods.
Credits: 3

Prerequisites:

None.

ARCH 266: Architecture Pre-Design

Course focuses primarily on needs of students who are approaching design problems requiring a sequential structuring for analysis, synthesis and evaluation. The course covers micro to macro-environmental programming and design procedures. Considerable emphasis on development and use of appropriate communication skills with case studies.
Credits: 3

Prerequisites:

ARCH 199; Second year standing.

ARCH 270: Digital Tools in Architecture I

Introduces architecture students to computer applications to architecture. Provides computer literacy for both business and graphic computer applications and systems management.
Credits: 3

Prerequisites:

None.

ARCH 271: Digital Tools in Architecture II

Introduces architecture students to computer applications to architecture. Provides computer literacy for both business and graphic computer applications and systems management.

Credits: 3

Prerequisites:

ARCH 270.

ARCH 272: Digital Tools in Architecture III

Introduces architecture students to computer applications to architecture. Provides computer literacy for both business and graphic computer applications and systems management. Focuses on Autodesk Revit software.
Credits: 3
Prerequisites:

ARCH 270.

ARCH 301: Architectural History Survey I

Principles of architectural history, the why and how of the study of history is presented in the context of early civilizations and their architecture. The course covers the beginning of work of the Arab-world, antiquity, late antiquity and post. Late antiquity persuades of Africa, Europe, Central Asia, Asia and pre-Columbian America.
Credits: 3
Prerequisites:

ARCH 100; ARCH 150 or ARCH 160; ARCH 151 or ARCH 161.

ARCH 302: Architecture History Survey II

This course provides clear definitions and limits of the elements of architecture as they relate to socio-cultural systems conferring significance and noteworthiness to respective historical styles, from the post-renaissance period to the contemporary period.
Credits: 3

Prerequisites:

ARCH 301.

ARCH 380: Special Topics in Architecture and Urbanism

Introduces a wide range of perspectives on architecture, urban and community design and planning issues. For current offerings will be available from the Department of Architecture. This course may be taken four times for credit as long as different topics are selected. See page 577 for additional information related to Special Topics courses.
Credits: 3

Prerequisites:

None. Open to non-majors.

ARCH 401: Materials and Methods

Introduces students to the technologies of light construction including wood framing, masonry, and concrete. Properties of these materials are analyzed and the problem associated with their assemblies are studied and graphically illustrated.
Credits: 3

Prerequisites:

ARCH 100; ARCH 150 or ARCH 160; ARCH 151 or ARCH 161.

ARCH 421: Housing Design and Equity

Focuses on providing a working understanding about roles, responsibilities, and opportunities available to the young architect in urban settings in the creation of affordable housing amidst the rapidly increasing gentrification of urban neighborhoods and communities. Students will study the impact of market forces, land cost, zoning, building codes, construction, development finance, public-private partnerships, and architecture/ urban design in community development.
Credits: 3

Prerequisites:

Third year standing.

ARCH 430: Health and Design

This course will provide students with a framework to assess different urban and built environments from health and wellbeing viewpoints. Students in this class will learn about tools and techniques of designing healthier buildings and communities through a series of case studies, contemporary developments and best practices. Based on the readings, lectures, blackboard discussions, and assignments, students will become more capable of identifying opportunities to increase community health and well-being, and thereby improve the quality of life of urban populations within their work as architects, planners, health care practitioners and within other professional endeavors.
Credits: 3

Prerequisites:

None.

ARCH 440: Ecology and Architecture

The course is an exploration of the influence of Ecology and Architecture. It includes Ecology, Biophilic design and Biomimicry. It also includes an implementation of biophillic design as evidence -based design method to improve health and wellbeing of the occupant. The influence of Biomimicry is explored as innovation method to achieve better performance in buildings. The course also explores both macro-level urban ecology and microlevel building and its interaction with nature and people.
Credits: 3

Prerequisites:

None.

ARCH 501: Structures I (Statics)

Study of force composition, effect, resolution, equilibrium and the strength, mechanical and elastic properties of materials.
Credits: 3

Prerequisites:

MATH 007.

ARCH 502: Structures II (Strength)

Elementary analysis and design of structural framing members in wood, steel and concrete.
Credits: 3

Prerequisites:

ARCH 501.

ARCH 521: Introduction to Environmental Systems I

Exploration of energy issues and conservation, climate, and heat loss and gain as factors in environmental design.
Credits: 3

Prerequisites:

MATH 007; PHYS 008; ARCH 200; ARCH 402.

ARCH 522: Introduction to Environmental Systems II

Examination of principles and technologies of life safety systems, vertical transportation systems, electrical supply and distribution systems, lighting, and acoustics and their integration with architectural design.
Credits: 3

Prerequisites:

ARCH 201; ARCH 501; ARCH 521.

ARCH 530: Introduction to Sustainability

This introductory course will examine the meaning, history, sources, context and strategic approaches towards sustainability as viewed through a design lens. To approach an understanding of sustainable design, however, one must first explore what it means to be sustainable and why it is of primary importance in today's world, especially in architecture and design. This course will take a macro approach toward sustainability by casting a broad net on what the operating principles and strategies of sustainable design should espouse. This course is not intended to create a detailed analysis of specific projects or energy models for high performance buildings. It is meant to introduce students to a number of sustainable strategies and to inculcate the necessity for their inclusion in all design.

Credits: 3

Prerequisites:

None.

ARCH 570: Public Issues, Climate Change and Architecture

Introduces students to key issues and factors linking architects to the public through an examination of historical developments, public policy and contemporary development initiatives. An emphasis is placed on issues related to the proliferation of suburbia and the resurgence of urban centers in North America. Human settlements and buildings are shaped within processes and systems regulated by government. They are also a reflection of cultural and social values, channeled through the work of design and development professionals.

Credits: 3

Prerequisites:

ARCH 203.

ARCH 651: Principles of Urban Design

Exposes architecture students to the concepts, methodologies, techniques and attitudes of urban design to convey an understanding of urban design in the contexts of both the micro and macro scales of the built environment and to sensitize students to the place of architectural interventions in systems of urban design.

Credits: 3

Prerequisites:

ARCH 201; ARCH 302; ARCH 521.

ARCH 720: Advanced Architecture Theory

The course will examine how architectural theory has continued to expand at such a rate that it is impossible to address the entirety of the current discourse in one or even several courses. The objective here is to provide a grounding in the main streams of theoretical thinking, to acquaint the student with principal voices in architectural discourse and the defining differences in current thinking as well as provide a useful way of organizing the varying ideas in that discourse into some coherent and useful system of thought.

Credits: 3

Prerequisites:

ARCH 205.

ARCH 751: Professional Practice

Study of standard practices of the architectural profession, including ethics, contracts, performance criteria and fiscal management.

Credits: 3

Prerequisites:

ARCH 202; ARCH 951.

ARCH 803: Independent Study

Independent study in the area of the student's professional interest. Students must complete an Independent Study Proposal and have it signed by their major advisors as well as the Department Chair.
Credits: 3

Prerequisites:

Fourth or fifth year standing and approval of the faculty and Department Chair.

ARCH 811: Directed Studies

Students work closely with an instructor or the department chair on a designated project within the Department of Architecture, faculty research or other initiative. Required guided independent study at the advanced level.
Credits: 3

Prerequisites:

Department Chair approval.

ARCH 828: Advanced Theories of Architecture

The course will examine how architectural theory has continued to expand at such a rate that it is impossible to address the entirety of the current discourse in one or even several courses. The objective here is to provide a grounding in the main streams of theoretical thinking, to acquaint the student with principal voices in architectural discourse and the defining differences in current thinking as well as provide a useful way of organizing the varying ideas in that discourse into some coherent and useful system of thought.
Credits: 3

Prerequisites:

ARCH 204 or ARCH 467

ARCH 860: Thesis I

Builds on work of previous design studios and emphasized exploration and development of architectural expression through integration of various aspects of architectural design within cultural and site contexts.
Credits: 6

Prerequisites:

ARCH 204; ARCH 701 or ARCH 570, ARCH 891.

ARCH 861: Thesis II

The final design studios with emphasis on exploration and development of architectural expression through integration of various aspects of architectural design within cultural and site contexts.
Credits: 6

Prerequisites:

ARCH 860 or ARCH 205; ARCH 701 or ARCH 570.

ARCH 868: Architecture Thesis I

Builds on work of the undergraduate design studios and emphasizes exploration and development of architectural expression through integration of various aspects of architectural design within cultural and site contexts.
Credits: 6

Prerequisites:

ARCH 204 or ARCH 467; ARCH 478 or ARCH 570 or ARCH 701; ARCH 438 or ARCH 891.

ARCH 869: Architecture Thesis II

The final design studios with emphasis on exploration and development of architectural expression through integration of various aspects of architectural design within cultural and site contexts.
Credits: 6

Prerequisites:

ARCH 207 or ARCH 868; ARCH 478 or ARCH 570 or ARCH 701.

ARCH 882: Professional Practices in Architecture

Study of standard practices of the architectural profession, including ethics, contracts, performance criteria and fiscal management.
Credits: 3

Prerequisites:

ARCH 202 or ARCH 365

ARCH 885: Architecture Graduate Seminar

Introduces a wide range of perspectives on architecture, urban and community design and planning issues. For current offerings will be available from the Department of Architecture.
Credits: 3

Prerequisites:

ARCH 720 or ARCH 828; ARCH 868

ARCH 891: Thesis Preparation

Research methods, analysis, and program development for thesis project.
Credits: 3

Prerequisites:

ARCH 204; and within 36 credits of completion of the curriculum.

ARCH 951: Construction Documents I

Involves the reparation of technical, professional and legal documentation for building projects.
Credits: 3

Prerequisites:

ARCH 200; ARCH 202; ARCH 266, ARCH 401; ARCH 502; ARCH 522. ARCHITECTURE PROFESSIONAL ELECTIVES

Art History-Master Of Arts

ARHI-267: Black Women in Visual Culture

This course will explore the relationship between Black women and visual culture, putting particular emphasis on the fine arts, film, the music industry, mass media, and gaming culture. Each of these forms of visual culture depends on the construction of women as visual objects through "the gaze," which contributes to formulations of sexuality, gender, race and nation. We will explore several theories of "the gaze" and its means of producing modern identities. Various critical questions will be raised in the course during the semester: How does the visual differ from other forms of representation when it comes to portraying women and/or gendered "others"? Can women's bodies in visual culture function outside patriarchal discourse? Can "the male gaze" be disrupted or redirected when women themselves are creating their own images?
Credits: 3

ARHI-276: Topics in Art Criticism

An overview of the description, interpretation, and evaluation of visual art as practiced in the discipline of art criticism. Both traditional and postmodern critical approaches to art will be considered with an emphasis on contemporary art criticism. Students will read a range of past and present art critics and write several examples of art criticism based on direct observation of contemporary art works.
Credits: 3

ARHI-277: Art Historical Studies

This class is part of a group of courses intended to introduce the major monuments and themes of ancient and medieval art, architecture, and visual culture

Credits: 3

ARHI-278: Trends Ideas African American Art

This course seeks to introduce students to problems in art historiography and art criticism and to explore the issues of identity and culture through examination of the Harlem Renaissance and contemporary developments in African American Art.
Credits: 3

ARHI-279: Chinese Painting

Chinese brush painting, with its emphasis on the beauty of simplicity, flowing brush strokes and graceful designs, reflects time-honored principles of Chinese philosophy and culture. Practicing Chinese brush painting helps one quiet the mind and expand creative self-expression and discipline. In class, students will learn to handle Chinese brushes with ink and color, execute brush strokes correctly and artistically, and control the ink flow and load the brush correctly with five shades of inks. Students will learn the method of painting landscape, flower and bird with Chinese brush. The principle of composition in Chinese painting will be introduced through class practice. The class also introduces the basic knowledge of the philosophies and artistic intents associated with Chinese culture. Slide lecture on the development of Chinese art and culture will be provided during the class
Credits: 3

ARHI-280: West African Art

In-depth history of the traditional arts of West Africa (Guinea, Mali, Togo, Ghana, and Nigeria).
Credits: 3

ARHI-281: African Art History III

This course introduces the art and architecture of Africa, beginning some 8,000 years ago and continuing into the 1990s. We will begin with an overview of Ancient Peoples and Sacred Sites in Africa (8,000 BCE - 800 CE). We then follow with consideration of African Art and World Religions (450 - 1450). African Art and Global Trade (1450 - 1860) is the third section. Then we will look at Africa, Colonialism and the Modern World (1860 - 1957). Lastly, we will consider The Art of African Nations (1957 - 1994). The first evidence of an aesthetic impulse is about 75,000 years ago at Blombos Cave in South Africa. We will end the course by considering contemporary art coming into the 21st Century. Thus, we will investigate a span of art-making longer than any you have looked at so far. Our exploration will look at art forms that developed on the continent as well as those that were inspired from outside sources.
Credits: 3

ARHI-282: Far Eastern Art

The course examines the dynamic variety of form and imagery originating from a wide range of locations and ideologies. It identifies distinct stylistic qualities that define the visual idiom of each unique society, while searching for the artistic commonalities between them.
Credits: 3

ARHI-283: Islamic Art

This course is meant as an introduction to the arts and architecture of the Islamic world, from the time of the Prophet to the present day. The course will concentrate on selected moments and monuments in the central historic regions—the Arab Middle East, North Africa, Spain, Iran, India, and Turkey—and consider the relationship of the visual arts to the history, geography, and traditions of each region. We will also consider contemporary arts, and problems of historic preservation. The Washington, DC area is particularly rich in museum collections of Islamic art, which this course will feature. Students will visit a local museum collection on their own during the semester as part of the course work.
Credits: 3

ARHI-284: Modern Art History I

Art in the Western world from the late 18th century to the present. Content includes neoclassicism and romanticism, realism, the impressionists, parallel developments in architecture, the new sculptural tradition of Rodin, postimpressionism to fauvism, expressionism, futurism, cubism, geometric abstraction in sculpture and painting, modernism in architecture in the 20th century, and Dadaism and surrealism.
Credits: 3

ARHI-285: Modern Art History II

Continuation of ARHU-285. Also covers developments since 1945, such as action painting, pop art, minimal art, and postmodernism. Study of the collections of the Metropolitan Museum of Art, the Museum of Modern Art, the Guggenheim Museum, and the Whitney Museum of American Art is included.
Credits: 3

ARHI-286: African American Art I

This course addresses the distinctive paths taken by artists of African descent in the Americas. Some, like Henry Ossawa Tanner, trained in the Western tradition and others, like the Santeria practitioners of Cuba or the basket makers of the Sea Islands worked with received or reinvented African traditions.
Credits: 3

ARHI-287: African American Art II

This course addresses the distinctive paths taken by artists of African descent in the Americas. Some, like Henry Ossawa Tanner, trained in the Western tradition and others, like the Santeria practitioners of Cuba or the basket makers of the Sea Islands worked with received or reinvented African traditions.
Credits: 3

ARHI-288: Latin American & Caribbean Art

An examination of the major aspects of Latin American and Caribbean art from the early 19th through the 20th century. Emphasis is placed on integrating the social and political background of the various cultures with the key artists, artistic issues and movements of particular countries and periods. Topics to be covered include: the influence of the major art academies in Mexico, Brazil and Ecuador, the strong links between art and politics, identity, woman as artist and subject, and the ongoing dialogue with the art of Europe and later the United States
Credits: 3

ARHI-289: Research in African Art

This course examines the rich heritage of African arts and architecture as they shape and have been shaped by the histories and cultural values (social, political, religious, philosophical, and aesthetic) of African peoples, both past and present, on the continent where humanity — and art — began. Topics include: artists and creative process; an historical overview of five major traditions (26,000 BCE to 1900 CE); textiles, decorative, and body arts; architecture; and contemporary expressions. Museum visits, artists' demonstrations, and films supplement the course.
Credits: 3

ARHI-290: Res in African American Art

This course surveys the work of African American artists, from the nineteenth century to the present. We will use the artwork as a means of understanding the lived experiences of black Americans - that is Americans of African descent, whose origins are from across the diaspora.
Credits: 3

ARHI-291: Contemporary African Art

The course will probe the destructive politics behind much of contemporary African Art, and it will include installation art, textile art and hangings. We will discuss whether contemporary African artists work in the

Western art world or the African world or both, and which dominates each artist.
Credits: 3

ARHI-292: Topics in Art Criticism

An overview of the description, interpretation, and evaluation of visual art as practiced in the discipline of art criticism. Both traditional and postmodern critical approaches to art will be considered with an emphasis on contemporary art criticism. Students will read a range of past and present art critics and write several examples of art criticism based on direct observation of contemporary art works.
Credits: 3

ARHI-293: Problems in Contemporary African American Art

A survey of challenges with African American Art from post-Civil War to present, linking with the Arts of the African continent.
Credits: 3

ARHI-294: Renaissance Art History

By the end of this course, students gain a thorough knowledge of the Italian and European Renaissance Age, developing practical perception and a confident grasp of the material, understanding the relationship between both historical and artistic events and valuing the importance of patronage
Credits: 3

ARHI-295: Problems in Oriental Art

Introduces the arts of South, Southeast, and east Asia. Examines aspects of the culture and history of Asia.
Credits: 3

ARHI-296: Sem:Independent Research Art History

Research in art history under faculty guidance.
Credits: 3

ARHI-297: Death Iconography

This course is a study of the development of the cult and iconography of death from early Christianity to the beginning of the Renaissance with an emphasis on Byzantine art.
Credits: 3

ARHI-298: The Expressionist Image

An introduction to the language of visual expression, using studio projects to explore the fundamental principles of visual art. Students acquire a working knowledge of visual syntax applicable to the study of art history and popular culture, as well as art.
Credits: 3

ARHI-299: Field Study Art History

The major in art history introduces students to a broad range of issues, skills and practices in the field of visual studies with a focus on works of art and architecture. The curriculum is designed to familiarize students with some of the major periods in both Western and Non-Western art history as well as the compelling methodologies and questions of the art historian.
Credits: 3

ARHI-312: Contemporary Art

In this course, you'll consider this question through more than 70 works of art made between 1980 and the present, with a focus on art from the past decade. You'll hear directly from artists, architects, and designers from around the globe about their creative processes, materials, and inspiration.
Credits: 3

Art- Drawing

ARTR-004: Drawing IV

Linear perspective, compositional structure, figure/ground integration, spatial perception, critical thinking, and analytical skills will all be emphasized extensively. .. The hope is that students will use this global approach to develop a "critical eye" in evaluation of contemporary drawing.
Credits: 3

Art-Graduate MFA

ARTG-201: Drawing Workshop I

This course introduces students to classical and contemporary drawing techniques and concepts, with emphasis on the understanding of their formal language and the fundamentals of artistic expression. Various dry drawing media, such as graphite and charcoal, are the primary tools for this class.
Credits: 3

ARTG-202: Drawing Workshop II

Continuation of ARTG-201. This course introduces students to classical and contemporary drawing techniques and concepts, with emphasis on the understanding of their formal language and the fundamentals of artistic expression. Various dry drawing media, such as graphite and charcoal, are the primary tools for this class.
Credits: 3

ARTG-206: Public Art Intermedia

Survey of historical precedents in mural painting methods and materials as educational media.
Credits: 3

ARTG-207: Social Painting II

A continuation of ARTG-206. Survey of historical precedents in mural painting methods and materials as educational media.
Credits: 3

ARTG-208: Painting Workshop I

Exploration in diverse approaches in painting, its forms and its techniques, with pictorial formulation in varied media.
Credits: 3

ARTG-209: IS: Painting Workshop II

Presents individual problems in painting, with group and individual criticism
Credits: 3

ARTG-210: Painting Workshop III

Independent study in painting, with tutorial and group criticism
Credits: 3

ARTG-211: Painting Workshop IV

Self-directed study with periodic meetings with faculty
Credits: 3

ARTG-212: Painting Workshop V

Exploration of diverse approaches to painting. Self-directed study
Credits: 3

ARTG-213: Painting Workshop VI

Exploration of diverse approaches to painting. Self-directed study continued..
Credits: 3

ARTG-214: Painting Workshop VII

Self-directed study in painting. ARTG-215. Intermediate Rhythm Techniques Workshop. 3 units. Explanation, development, and practice of a rhythmic approach to the design and production of art based on the concepts of traditional African Work Rhythms/Songs.
Credits: 3

ARTG-215: Time as Rhythm of Experience

Exploration of the analysis of rhythm through readings and analysis projects. Repertoire will include tonal, post-tonal, and popular Western music, as well as music of other traditions
Credits: 3

ARTG-216: Painting Mixed Media

Exploration of diverse media, with emphasis on development of a personal style.
Credits: 3

ARTG-217: Figure Painting Workshop

This course is a student exp/oration into the design possibilities and stylistic variances of the human figure in painting.
Credits: 3

ARTG-218: Advanced Figure Painting

Exploration of the application of design possibilities and stylistic variances of the human figure toward communicating an iconographic image.
Credits: 3

ARTG-220: Social Graphics I

Study of materials and techniques in graphics as a medium of communication, with a survey of historical precedents.
Credits: 3

ARTG-221: Social Graphics II

Continuation of ARTG-220. Study of materials and techniques in graphics as a medium of communication, with a survey of historical precedents.
Credits: 3

ARTG-222: Printmaking I

Exploration of various aspects in the field of visual communication, with diverse approaches in printmaking media and techniques.
Credits: 3

ARTG-223: Printmaking II

Examines individual problems in graphics, with group and individual criticism.
Credits: 3

ARTG-224: Printmaking III

Independent study in graphics, with tutorial and group criticism.
Credits: 3

ARTG-225: Printmaking IV

Self-directed study in graphics, with periodic meetings with faculty.
Credits: 3

ARTG-226: Relief Printmaking

Exploration of traditional methods as well as experimentation in new and combination techniques.
Credits: 3

ARTG-227: Printmaking Workshop V

Individual problems in printmaking. Specific printmaking problems assigned by the instructor to individual graduate students. Prob/ems usually fall within the aesthetical and technical parameters of the individual student's graduate work in printmaking.
Credits: 3

ARTG-228: Independent Stu in Printmaking

After the instructor's approval of a preliminary proposal, the graduate student investigates a technical and/or creative area of printmaking and presents a cohesive body of work at the end of the semester. Periodic meetings with the instructor for evaluation of progress.
Credits: 3

ARTG-229: Independent Wkshp Printmaking

After the instructor's approval of a preliminary proposal. the graduate student investigates a technical and/or creative area of printmaking and presents a cohesive body of work at the end of the semester. Periodic meetings with the instructor for evaluation of progress.
Credits: 3

ARTG-230: Graduate Photo

Offered in a studio format, students select an area of study for further investigation. The student will examine the technological, behavioral and theoretical underpinnings of design while exploring various ways of solving problems. Students will make their selection in consultation with their graduate advisor(s).
Credits: 3

ARTG-231: Graduate Photo

Offered in a studio format, students select an area of study for further investigation. The student will examine the technological, behavioral and theoretical underpinnings of design while exploring various ways of solving problems. Students will make their selection in consultation with their graduate advisor(s).
Credits: 3

ARTG-232: Spec Project in Print & Photo

Students propose to investigate a technical and/or creative aspect of photography under the supervision of a selected professor
Credits: 3

ARTG-233: Special Project in Photo

A continuation of ARTG-232. Students propose to investigate a technical and/or creative aspect of photography under the supervision of a selected professor.
Credits: 3

ARTG-234: Workshop in Photo

Self-directed study in Photography.
Credits: 3

ARTG-235: Workshop in Photography

Self-directed study in Photography.
Credits: 3

ARTG-236: Non-Silver Photography

This course is an introduction to non-silver and camera-less images. Through a combination of demonstrations and lectures, students will become self-sufficient in lumen printing, cyanotypes, alcohol transfers, and various experimental techniques. The course will explore methods on how one can create a remote darkroom suitable for these processes. Students will also look at contemporary artists using analog techniques to gain insight into how these processes are still relevant today.
Credits: 3

ARTG-237: Digital Photography I

An introductory course to the creative and technical opportunities and challenges of digital photography. Through studio assignments, students learn and master basic camera functions and software techniques to produce digital imagery. Shutter speed, aperture, and exposure are a few of the settings that will be introduced along with exposure to Adobe Lightroom, a image management system.
Credits: 3

ARTG-238: Digital Photography II

Continuation of ARTG-238. An introductory course to the creative and technical opportunities and challenges of digital photography. Through studio assignments, students learn and master basic camera functions and software techniques to produce digital imagery. Shutter speed, aperture, and exposure are a few of the settings that will be introduced along with exposure to Adobe Lightroom, a image management system.
Credits: 3

ARTG-239: Digital Photo Printmaking

This course introduces students to techniques and challenges of digital printing.
Credits: 3

ARTG-240: IS: Photography

After the instructor's approval of a preliminary proposal. the graduate student investigates a technical and/or creative area of photography and presents a cohesive body of work at the end of the semester. Periodic meetings with the instructor for evaluation of progress.
Credits: 3

ARTG-245: Social Design Workshop Studio

Studio investigation on the interior environment via unique or prototypical projects, of varying scales and typologies, and in response to considerations of social context, site, and program. Emphasizing a holistic, threedimensional approach to problem-solving, including spatial manipulations and integrated investigations of materials, structures, light, and color.
Credits: 3

ARTG-249: Advanced Typography

Typography I. 3 units. History, design, and execution of fundamental style, compiling and copyfitting
Credits: 3

ARTG-251: Workshop: Advertising I

Treats the aesthetics and techniques of advertising design in an agency situation. The student explores advertising layout, advanced problems in illustration, advertising art, magazine covers, and display. Students carry problems from concept to conclusion.
Credits: 3

ARTG-252: Workshop: Advertising II

Involves studio design problems with emphasis on the development of ideas and the ability to communicate

them effectively. Color, form, theory, inter-related with the psychology of visual perception. The grid system, figure and ground relationship, typography and symbolism.

Credits: 3

ARTG-253: Design Workshop

Through workshop format the student presents independent problem/project in design with tutorial and group criticism
Credits: 3

ARTG-255: Workshop: Problems in Illustration

Investigation of artistic problems in illustration with exploration leading to concrete resolutions. Problems of increased complexity and greater depth of practical problem solving required in the sequence of coursework
Credits: 3

ARTG-256: Design Seminar

Students will explore the importance of clothing, all elements of the fashion industry, fashion evolution, elements and principles of design, figure analysis, wardrobe planning and principles of clothing construction
Credits: 3

ARTG-257: Graduate Internship/Apprenticeship in Design

An individualized contracted field experience within the fashion industry. This contractual arrangement involves a student learning plan, cooperating employer supervision, and faculty coordination.
Credits: 3

ARTG-260: Social Sculpture

Development of a personal approach to sculpture. Focus on individual, community, political, environmental and social concerns as well as applied color. Course may be repeated for credit up to 6 units. Limited enrollment
Credits: 3

ARTG-261: Public Art Sculpture

This course focuses on percent for art programs. It will emphasize the stages 6 application and proposal process, preparation of sketches, models, budget breakdown, time management, materials consideration, insurance and documentation. Student will be encouraged to seek percent for art commissions. Course may be repeated for up to 6 hours of credit.
Credits: 3

ARTG-262: Social Sculpture II

Continuation of ARTG-260. Development of a personal approach to sculpture. Focus on individual, community, political, environmental and social concerns as well as applied color. Course may be repeated for credit up to 6 units. Limited enrollment
Credits: 3

ARTG-263: Sculpture Workshop I

Advanced sculptural experiments and research in methods and materials applicable to substitution, movement, and sound
Credits: 3

ARTG-264: Sculpture Workshop II

In-depth individual study in one or more areas of materials and methods.
Credits: 3

ARTG-265: Sculpture Workshop III

Independent research and experimentation, with group and individual criticism.
Credits: 3

ARTG-266: Sculpture Workshop IV

Self-directed study in sculpture, with periodic meetings with faculty.
Credits: 3

ARTG-267: Non-Trad Approach in Sculpture

The environment is explored as a resource for materials, ideas and non-traditional methods of image making in sculpture. Course may be repeated for up to 6 units. Limited. enrollment.
Credits: 3

ARTG-268: Non-Permanent Sculpture

Sculpture of a temporary nature, to include serial as well as conceptual works. Ideas may be presented in a variety of visual media such as film and T.V. Course may be repeated for up to 6 units. Limited enrollment.
Credits: 3

ARTG-269: Installations Environments

Sculptural concepts as they relate to man-made and other already existing environments (site specific). Scale drawings and models required. Course may be repeated for up to 6 hours of credit. Limited enrollment
Credits: 3

ARTG-270: Ceramic Sculpture I

Technical development of sculptural forms.
Credits: 3

ARTG-271: Ceramic Sculpture II

Further exploration of ARTG-270, with emphasis on surface treatment.
Credits: 3

ARTG-272: Glaze Calculation & Formation

Presents basic elements in making glazes and understanding how glazes function.
Credits: 3

ARTG-273: Ceramic Workshop I

Concentration on technical wheel formation, clays, slips and glazes.
Credits: 3

ARTG-274: Ceramic Workshop II

Concentration on wheel production techniques and glazes.
Credits: 3

ARTG-275: Ceramic Workshop III

Independent study in the ceramic medium.
Credits: 3

ARTG-276: Public Art/Ceramics

The creation of ceramic art work for public places. The creation of ceramic work especially designed for public installation. such as, but not limited to, murals, fountains and ceramic sculpture.
Credits: 3

ARTG-277: Commercial Clay

Hands-on investigation of clay in commercial applications.
Credits: 3

ARTG-278: Traditions in Clay

Hands-on investigation of ceramic in other cultures and traditions.

Credits: 3

ARTG-279: New Directions in Clay

An investigation of the contemporary trends in ceramic art.
Credits: 3

ARTG-280: Studio Internship

Pre-approved internship in a professional ceramics studio. Designed to allow students to gain practical experience of setting and running a private ceramics studio.
Credits: 3

ARTG-281: Practicum: MFA Exhibit

Studio and research work in preparation for required MFA exhibition and thesis.
Credits: 3

ARTG-288: 3D Animation

3D Animation teaches students how to create their own animated 3D movie while also learning the fundamentals of animation. Students will use the same industry-standard techniques and workflows as animators in leading animation studios. By the end of the course, students will complete an incredible 3D Animation that they created from scratch.
Credits: 3

ARTG-291: Multi Media I

This course is covers multimedia concepts and applications utilizing text, graphics, animation, sound, video, Web, and various multimedia applications in the design, development, and creation of multimedia presentation.
Credits: 3

ARTG-292: Multi Media II

Continuation of ARTG-291. This course is covers multimedia concepts and applications utilizing text, graphics, animation, sound, video, Web, and various multimedia applications in the design, development, and creation of multimedia presentation.
Credits: 3

ARTG-293: Independent Study I - Electronic Studio

Independent study in the electronic studio medium.
Credits: 3

ARTG-294: Workshop Computer Graphics Design

Workshop that explores graphic communication through the understanding of the elements and principles of design; as well as, the design process, from idea development through the final execution of a document.
Credits: 3

ARTG-296: Independent Study II - Electronic Studio

Independent study in the electronic studio medium.
Credits: 3

ARTG-300: Thesis I

This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest.
Credits: 3

ARTG-301: Thesis II

This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest. This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest.

Credits: 3

ARTG-302: Thesis III

This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest.
Credits: 3

ARTG-303: Thesis IV

This is a process-oriented writing course that integrates reading, research, writing, and oral presentations. You will carry out a research project on a legal topic of your interest.
Credits: 3

ARTG-306: Workshop: Publication/Magazine & News Design I

The course will include the theory and practice of newspaper, magazine, and interactive web layout and design with an emphasis on publication design, corporate identity and advertising layout. The emphasis in the course is on graphic design products such as corporate identity, advertising layout, ad design, logo design, and other related products.
Credits: 3

ARTG-307: 3D Modeling & Animation I

Provides an introduction to creating, editing, and analyzing 3D models. Develops foundational skills to work with, and navigate the digital 3D modeling workspace to create 3D objects. Examines basic elements of the 3D development of modeling, texturing, lighting, animating, and rendering.
Credits: 3

ARTG-308: 3D Modeling & Animation II

Continuation of ARTG-307. Provides an introduction to creating, editing, and analyzing 3D models. Develops foundational skills to work with, and navigate the digital 3D modeling workspace to create 3D objects. Examines basic elements of the 3D development of modeling, texturing, lighting, animating, and rendering.
Credits: 3

ARTG-309: Digital Media & Multi Media App II

This course is designed to educate students on the ever-changing digital world, as well as to provide hands-on experience with industry standard software and equipment. Topics covered include graphic design, animation, audio production, video production, and web design.
Credits: 3

ARTG-311: Design Workshop: Publication/Mag & News Design II

Continuation of ARTG-306. The course will include the theory and practice of newspaper, magazine, and interactive web layout and design with an emphasis on publication design, corporate identity and advertising layout. The emphasis in the course is on graphic design products such as corporate identity, advertising layout, ad design, logo design, and other related products
Credits: 3

ARTG-314: Web Development & Interactive Media

Provides students with development and design skills for creating user centered, interactive content for all types of web and mobile devices. These courses are primarily introductory classes that provide students with the basic information needed to succeed in the graphic communications industry.
Credits: 3

ARTG-400: Graduate Fashion Studio I: Advanced Construction

This course provides an introduction to advanced sewing techniques for the experienced sewer with specific emphasis on construction details, unique fabrications, & specialized equipment.

Credits: 3
Prerequisites:
Studio I & Studio II.

ARTG-401: Graduate Fashion Studio II: Advanced Illustration

This course expands on the basic principles of drawing for the fashion industry with a focus on collection presentation utilizing both hand and computer techniques.
Credits: 3

ARTG-402: Fashion, Art & Media

This course expands on the basic principles of drawing for the fashion industry with a focus on collection presentation utilizing both hand and computer techniques.
Credits: 3

Prerequisites:

Fashion Illustration I & II.

ARTG-403: Graduate Fashion Studio III: Experimental Design

This course will present and challenge students to explore advanced methods of patternmaking, draping, cutting, and construction to create garments using a variety of materials.
Credits: 3

Prerequisites:

Studio II, Studio III and Graduate Fashion Studio I.

ARTG-404: Fashioning the Body

This course examines how the fashion and the body have historically and contemporaneously been utilized to create and communicate individual and group identities in a variety of settings as well as a host of other messages that the designer and wearer my attempt to send and the viewer may interpret.
Credits: 3

Prerequisites:

Fashion Illustration I & II.

ARTG-405: Studio Elective: Fashion Photography

In this course, students will explore the allure and implementation of fashion photography as it relates to cultural genres and influences. Emphasis will be placed on specific setups and lighting techniques for a desired result as well as creating a studio (or location) production environment to shoot their own work and best practices for creating works that have an editorial appeal.
Credits: 3

ARTG-406: Graduate Fashion Studio IV: Eco Fashion

This course is an applied design course that offers students an opportunity to explore sustainable processes in the development of fashion goods. their impact on consumers in the global marketplace, and the greening of the fashion industry, as they conceptualize their thesis project
Credits: 3

ARTG-407: Graduate Fashion Studio V: Fashion Design Workshop I

In this course, students will receive specialized instruction to create their body of work based upon the proposed thesis project
Credits: 3

ARTG-408: Graduate Fashion Studio VIII: Textile Design

This course examines the structural and decorative design of textile and related items from which fashion goods maybe constructed. Laboratory includes such techniques as weaving, knitting, knotting, and crocheting.

Credits: 3

ARTG-409: Fashion History Seminar

This course provides an exploration of the historical and social significance of dress/appearance, of specific styles, designers, and of the processes associated with the phenomenon to contextualize the nature of creative production.
Credits: 3

ARTG-410: Independent Study I: Fashion Design

This course allows students to work independently on an approved project or to work individually with an instructor to gain mastery or further information.
Credits: 3

ARTG-411: Graduate Fashion Studio XII: Capstone

This course will serve as an opportunity for students to encapsulate, synthesize, and demonstrate learning from their curricular experience from which the thesis project will emerge.
Credits: 3

Atmospheric Sciences

ATMS-300: Intro to Atmospheric Sciences

An introduction to the current scientific understanding of Earth's climate, climate change and climate variability; factors that determine climate, climate in the past, and Earth system connections; exposition of scientific observation, theory, and modeling that are used to make scientific predictions of climate
Credits: 3

ATMS-301: Current Topics in Atmospheric Sciences

Addresses current topics in the atmospheric sciences to prepare students for research in these areas. Topics will vary each year depending on developments in the field. See page 577 for additional information related to Special Topics courses.
Credits: 1

ATMS-320: Atmospheric Physics I

Composition and structure of the earth's atmosphere, atmospheric radiation and thermodynamics, fundamentals of atmospheric dynamics, overview of climatology.
Credits: 3

ATMS-321: Atmospheric Physics II

Continuation of ATMS-320. Emphasis on aerosol, clouds, radiation, and cloud instrumentation. Overview of cloud systems; theories of phase changes in clouds and micro- physical mechanisms of precipitation formation
Credits: 3

ATMS-330: Atmospheric Chemistry I

Overview of chemical kinetics and equilibria; sources and sinks of pollutants; photochemistry and smog formation; aqueous-phase chemistry; acid rain. ATMS-330 offered on two-year rotation
Credits: 3

ATMS-331: Atmospheric Chemistry II

Continuation of ATMS-330. Examines the atmosphere as a chemical system emphasizing physical and chemical processes that give rise to elevated surface ozone, particulate matter, and air toxins
Credits: 3

ATMS-340: Atmospheric Dynamics I

Aims at understanding the underlying mechanisms of atmospheric and oceanic motion over a vast range of spatial and temporal scales. ATMS-340 offered on two-year rotation
Credits: 3

ATMS-341: Atmospheric Dynamics II

Continuation of ATMS-340. Sound waves, gravity waves, Rossby waves; numerical weather prediction; baroclinic instability; general circulation; tropical dynamics.
Credits: 3

ATMS-520: Climatology

This course involves the study of the Earth's climate. Climate elements and atmospheric heat transfer processes will be studied and applied to climate classification schemes. The effects of climate on human activities will be considered
Credits: 3

ATMS-523: Synoptic Meteorology

This course examines important phenomena such as jet streaks, fronts, and vorticity maxima that govern the weather over thousands of square kilometers during the course of a few days.
Credits: 3

ATMS-530: Air Pollution Meteorology

This course is designed for engineers and professional personnel responsible for measuring air pollution levels or for measuring and evaluating meteorological parameters which affect the diffusion and concentration of pollutants in the atmosphere.
Credits: 3

ATMS-537: Advanced Laboratory and Instrumentation

Focuses on the instrumentation involved in measuring basic atmospheric parameters and data collection techniques.
Credits: 3

ATMS-550: Atmospheric Radiation

Focuses on terrestrial, solar radiation propagation in the atmosphere; radiative components in energy budgets, weather systems, climate studies; remote sensing.
Credits: 3

ATMS-551: Atmospheric Radiation II

Continuation of ATMS-550. Focuses on terrestrial, solar radiation propagation in the atmosphere; radiative components in energy budgets, weather systems, climate studies; remote sensing.
Credits: 3

ATMS-570: Remote Sensing I

Addresses concepts of electromagnetic and acoustic wave propagation; active and passive remote sensing techniques including radar, lidar, thermal emission systems.
Credits: 3

ATMS-571: Numerical Weather Prediction I

Covers numerical methods used in weatherp rediction models and examines how those models are applied for use in forecasting and research.
Credits: 3

ATMS-572: Numerical Weather Prediction II

Continuation of ATMS-571. Covers numerical methods used in weather prediction models and examines how those models are applied for use in forecasting and research.
Credits: 3

ATMS-600: PhD Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D.
Credits: 6

ATMS-670: Remote Sensing II

Continuation of ATMS-570. Addresses concepts of electromagnetic and acoustic wave propagation; active and passive remote sensing techniques including radar, lidar, thermal emission systems.
Credits: 3

ATMS-795: Ph D Res in Atmos Chemistry

This course will; expose PhD candidates to research on the chemistry of the stratosphere and utilize concepts of kinetics, photolysis, and catalytic cycles that are broadly important in atmospheric chemistry.
Credits: 5

Bassoon

MUTT-100: Bassoon Instruction

Private lessons to non-music major. Course can be repeated.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUTT-111: Bassoon Minor

Consists of major and minor scales and arpeggios, tone production, and etudes and solos in all styles.
Credits: 2

MUTT-112: Bassoon Minor

Consists of major and minor scales and arpeggios, tone production, and etudes and solos in all styles.
Credits: 2

MUTT-121: Bassoon Minor

Continuation of MUTT-111, 112.
Credits: 2

Prerequisites:

MUTT-111, 112, or consent of instructor.

MUTT-122: Bassoon Minor
Continuation of MUTT-111, 112.
Credits: 2

Prerequisites:

MUTT-111, 112, or consent of instructor.

MUTT-131: Bassoon Minor

Continuation of MUTT-121, 122.

Credits: 2

Prerequisites:

MUTT-121, 122, or consent of instructor.

MUTT-132: Bassoon Minor
Continuation of MUTT-121, 122.
Credits: 2

Prerequisites:

MUTT-121, 122, or consent of instructor.

MUTT-141: Bassoon Minor

Continuation of MUTT-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUTT-131, 132, or consent of instructor.

MUTT-142: Bassoon Minor

Continuation of MUTT-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUTT-131, 132, or consent of instructor.

MUTT-211: Bassoon Major

Instruction in major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUTT-212: Bassoon Major

Instruction in major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUTT-221: Bassoon Major

Continuation of MUTT-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUTT-211, 212, or consent of instructor.

MUTT-222: Bassoon Major

Continuation of MUTT-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUTT-211, 212, or consent of instructor.

MUTT-231: Bassoon Major
Continuation of MUTT-221, 222.
Credits: 4

Prerequisites:

MUTT-221, 222, or consent of instructor.

MUTT-232: Bassoon Major

Continuation of MUTT-221, 222.

Credits: 4

Prerequisites:

MUTT-221, 222, or consent of instructor.

MUTT-241: Bassoon Major

Continuation of MUTT-231, 232, with preparation for senior recital.

Credits: 4

Prerequisites:

MUTT-231, 232, or consent of instructor.

MUTT-242: Bassoon Major

Continuation of MUTT-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUTT-231, 232, or consent of instructor.

MUTT-301: Graduate Bassoon Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUTT-302: Graduate Bassoon Minor II

A continuation of MUTT-301. This course builds upon Bassoon performance techniques.
Credits: 3

MUTT-303: Graduate Bassoon Minor III

A continuation of MUTT-302. This course builds upon Bassoon performance techniques.
Credits: 3

MUTT-304: Graduate Bassoon Minor IV

A continuation of MUTT-303. This course builds upon Bassoon performance techniques.
Credits: 3

MUTT-311: Graduate Bassoon Major I

Private instruction in performance for graduate students.
Credits: 5

MUTT-312: Graduate Bassoon Major II

Private instruction in performance for graduate students.
Credits: 5

MUTT-321: Graduate Bassoon Major III

Private instruction in performance for graduate students.
Credits: 5

MUTT-322: Graduate Bassoon Major IV

Private instruction in performance for graduate students.
Credits: 5

Biblical Studies New Testament

BSNT-230: New Testament Critical Introduction

"New Testament: A Critical Introduction" (NTCI) attempts to orient you to the critical (i.e. academic rather than devotional) study of the NT (i.e. those 27 books that comprise the second and last major section of the Protestant Christian Bible). The course's overall aim is to equip you to plumb the depths of the NT for the tasks of Christian ministry (e.g. preaching, teaching, counseling, administration).
Credits: 3

BSNT-412: Sacred Text and Hermeneutics

This Sacred Texts and Traditions course explores theological writings from Christians, Muslims, and Jews in the Middle Ages. We will explore moments of both inter-religious conflict and peaceful co-existence, and we'll interrogate what this complex, distant history can teach us about possibilities of mutual understanding among members of Christian, Islamic, and Jewish faiths today.
Credits: 3

BSNT-515: BSNT D.Min. Biblical Studies Seminar

With attention to the synoptic gospels, the thirteen Pauline epistles and the Catholic epistles, this course will focus on the interpretive meaning of selected texts as they bear upon the issues of race/ethnicity, class and family. The students will conduct detailed analyses on passages in order to discern their implications for ministry in global contexts today. Each student will be expected to make a seminar presentation and then refine the work into a final research paper for the seminar. Each student will be further expected to maintain a course notebook on assigned readings.
Credits: 3

Biblical Studies Old Testament

BSOT-205: OT/Hebrew Bible I

This is the first half of a two-semester course intended to enable students to engage in critical (that is, analytical) reading, thinking, writing, and speaking about the contents of the Hebrew Bible/Old Testament and the history and religion of Israel. The first semester course focuses on Genesis-1 Kings 11 and the sources that make up this material. The purpose is for students to discover the original cultural setting insofar as this is possible (historical-critical method). In addition, class participants will have the opportunity to evaluate newer approaches to biblical interpretation, especially African American and feminist/womanist biblical interpretation.
Credits: 3

BSOT-210: OT/Hebrew Bible II

This is the second half of a two-semester course intended to introduce students to a critical (that is, analytical) way of reading, thinking, writing, and speaking about the contents of the Hebrew Bible/Old Testament and the history and religion of Israel. The second semester course focuses on the historical period beginning with the divided kingdom and the prophetic and wisdom literature of the HB/OT. The purpose is to understand the material in its original cultural setting insofar as this is possible (historical-critical method). In addition, newer approaches to biblical interpretation will be considered. Special attention will be paid to African American and feminist/womanist biblical interpretation.
Credits: 3

BSOT-221: Language (Hebrew or Greek)

This is the first half of a full year introduction to Biblical Hebrew Language and Grammar. Students will master the writing system, basic grammar, and essential vocabulary necessary for reading the prose sections of the Hebrew Bible (Old Testament) in Hebrew. This is an online class taught with a combination of video-taped lectures and three virtual F2F sessions each week at lunch on M-W-F from 12-1 using Zoom video-conference videoconference software, during which time students go over homework and practice pronunciation.
Credits: 3

BSOT-222: Language (Hebrew or Greek)

This is the second half of a full year introduction to Biblical Hebrew Language and Grammar. Using Logos software, students will read the books of Jonah, Ruth, and as much of the first twelve chapters of Genesis as we can get through. They fill out Excel spreadsheets, one worksheet each for verbs, nouns, and other parts of speech, to consolidate their knowledge of vocabulary and grammar, then in class pronounce and translate the material, answering questions about unusual forms.
Credits: 3

BSOT-224: Language (Hebrew or Greek)

This course introduces students to the alphabets, overall structure of the languages, basic vocabulary of Hebrew and Greek, and how to use Logos software to decipher biblical Hebrew and Greek texts so that they may understand the more technical commentaries. Depending on the ability and diligence of the students, which varies from class to class, the class may read several chapters of Genesis together as well as the prologue to the Gospel of John and other NT texts chosen by the students. This class does not substitute for a full year long course in Hebrew and Greek, but it does provide minimal tools for students who would like to be able to understand what the commentators are talking about when they begin to use Hebrew and Greek terms..
Credits: 3

BSOT-225: Women in the Hebrew Bible and the Quran

This course is unique in its nature and structure. It is a team-taught course on a timely topic, women in the two sacred texts. Students will compare and contrast theological debate amongst feminists, womanists, and general theologians. The students discern how the stories of the women in the two sacred text connect with contemporary issues in the lives of men and women. They discover ways of communicating the messages coming from these stories in faith communities today. This course is also considered the cornerstone of the field of interreligious studies and dialogue.
Credits: 3

BSOT-515: Biblical Studies Seminar

This course is designed to give the student who is familiar with the content of the books of the Old Testament the opportunity for advanced study of the Old Testament. This is not an Old Testament Survey. Rather, the course is an analytical study of the Old Testament and its themes and the theology that can be derived from these. The goal is to obtain a better understanding of the whole of the Old Testament, particularly of the God of the Old Testament and His working through history and the nation of Israel, in order to better understand the fulfillment of the Old Testament in Jesus Christ.
Credits: 3

BSOT-535: Management Control Nonprofit

The coursework focuses on building the specific analytical and management skills needed by those assuming leadership roles as executive staff or board members in a variety of nonprofit fields. All the courses feature a global perspective for relevance in today's world of interconnected economies and communication.
Credits: 3

Biblical Studies Religion

BSRL-410: Course Sacred Text and Hermeneutics

This course is unique in its nature and structure. This is the team-taught course about Sacred Texts and Hermeneutics offered at the School of Divinity, which will be led by two professors in Biblical and Qur'uc0u257 nic Studies. The course will introduce different hermeneutical theories, exegetical methods, and theological perspectives. Each class session will include a lecture on particular sacred texts and methods, to provide an opportunity for students to engage the professors and each other on the hermeneutical insights and other implications of the material. This provides a context for recognition of interconnections between texts that might not be immediately identifiable. The course surveys the development of theories of interpretation and exegesis from classical to contemporary time and shows the relation between the theory of interpretation and the understanding of theology. The course will especially attend to the influence of nineteenth- and twentieth-century theories of interpretation upon sacred texts, with an explicit focus on engaging twenty-first century approaches and debates about the importance of interpretation for religious and theological studies. This course fulfills the M.Div. New Testament exegesis requirement and is also required for the M.A. concentrations in Biblical and Islamic Studies.
Credits: 3

Biochemistry

BIOC-101: General Biochemistry

The structure, function, and metabolism of the important classes of biochemicals are discussed. This includes a discussion of the biochemistry of carbohydrates, lipids, proteins, nucleic acids, vitamins, hormones and coenzymes.
Credits: 4

BIOC-170: General Biochemistry

The structure, function, and metabolism of the important classes of biochemicals are discussed. This includes a discussion of the biochemistry of carbohydrates, lipids, proteins, nucleic acids, vitamins, hormones and coenzymes.
Credits: 7

BIOC-182: Clinical Biochemistry

This course involves the study of basic human biochemistry, with an emphasis on biomolecular structure, metabolic pathways and their relationship to human health and disease.
Credits: 3

BIOC-201: Seminar in Biochemistry

Students are required to present a seminar on a current topic in biochemical research which is of interest to them.
Credits: 1-5

BIOC-203: Biochemistry Laboratory

Instruction in biochemical techniques and instrumentation.
Credits: 3

BIOC-205: Directed Research

The purpose of this course is for the design and performance of research leading to a Ph.D. Enrollment limited to advanced biochemistry and molecular biology graduate students, who have completed the core course work. See note on page 577 related to research and dissertation hours.

Credits: 1-9

BIOC-208: Protein Structure and Function

Correlation of the three-dimensional structure of proteins with biological functions is intensively studied.
Credits: 3

BIOC-211: Orientation to Research

The purpose of Orientation to Research is to allow the student to become familiar. with the research projects of faculty members in the Department of Biochemistry and Molecular Biology. The student also is given the opportunity to learn some of the research techniques used in these research projects. Students register for course BIOC-211-01 in the Spring Semester of their first year of study. The student works in the laboratories of three faculty members during Orientation to Research
Credits: 3

BIOC-240: Enzymology

The kinetic and mechanistic theory of enzyme action will be discussed with emphasis on the experimental approach used to interpret kinetic data and determine the kinetic parameters of classical enzymes and well-defined regulatory and transport systems. The steady-state rate equations for a number of unireactant and multi-reactant mechanisms will be developed. Reversible inhibition, isotope exchange, binding phenomenon, activation, environmental effects, and physiological regulation of enzyme activity will be considered separately.
Credits: 3
Prerequisites:

Calculus; physical chemistry (thermodynamics, chemical kinetics, catalysis) or permission of the instructor.

BIOC-270: Molecular Biology

Topics vary somewhat each time the course is taught to include topics of current interest in nucleic acid-protein interaction. See note on page 577 related to Special Topics courses.
Credits: 3

BIOC-272: Metabolic Regulation

This course covers the control of rate-limiting steps in intermediary metabolism by covalent modification of enzymes, metabolic disorders, and chemical messengers.
Credits: 3

BIOC-300: Research for PhD Candidates

The purpose of this course is for the design and performance of research leading to a Ph.D. See note on page 577 related to research and dissertation hours.
Credits: 1-9

BIOC-532: Molecular Biology of the Cell

This course will provide a full overview of the world of cell and microbiology. We will first provide the basic components comprised within all living things before moving onto to how organisms' internal systems work and how they coexist and contend with external elements.
Credits: 3

Biology

BIOG-200: Biological Writing Course

Emphasis on integration of genetic concepts with ecology, evolution, and biodiversity. Includes DNA replication, gene expression, viruses, phylogeny, animal behavior, and population dynamics.
Credits: 1

BIOL-424: Environmental Microbiology

An Integrated approach to studying the role of microorganism in environmental waste management . The microbiology of air, water, soil and sewers are addressed. Emphases are placed on the public health implications of microbes and their products in the environment, and the role of microbes in bioremediation of hazardous chemical wastes.
Credits: 3

BIOL-430: Biostatics

Provides an understanding of the basic methods and underlying concepts of statistics that are used in public health decision-making. Among topics explored are descriptive statistics, probability, sampling, hypothesis testing and non-parametric statistics.
Credits: 4

Biology (Grad)

BIOG-415: Molecular Genetics

Lecture-laboratory course in which studies of plant and microbial genomes are conducted through nucleic acid analysis and applications of recombinant-DNA'c2 technology and environmental mutagenesis.
Credits: 3

BIOG-420: Cancer Biology

This course provides students with a basic understanding of the molecular and cellular mechanisms that lead to cancer. Lectures primarily focus on the role of growth factors, oncogenes, tumor suppressor genes, angiogenesis, and signal transduction mechanisms in tumor formation.
Credits: 3

BIOG-421: Virology

An in-depth discussion of the principles of modern virology. Major topics of discussion will include: virus replication strategies, virus structure, virus infection and disease, and host resistance to disease.
Credits: 3

BIOG-426: Food Microbiology Lec/Lab

This course is designed to give students an understanding of the role of microorganisms in food processing and preservation; the relation of microorganisms to food spoilage, foodborne illness, and intoxication; general food processing and quality control; the role of microorganisms in health promotion; and federal food-processing regulations.
Credits: 3

BIOG-430: Biostatistics Lec/Lab

This course provides an overview of statistical methods for analyzing correlated data produced by longitudinal measurements taken over time. Topics include study design, exploratory data analysis techniques and linear mixed effects regression models.
Credits: 4

BIOG-500: Graduate Seminar I

This one credit course is meant to give students practice speaking in front of a scientific audience and to explore topics in detail. Students will research topics and organize presentations for faculty and other students. The topics may be any aspect of the biological sciences and must be approved by the instructor in advance (see schedule for deadline).
Credits: 1

BIOG-501: Graduate Seminar II

This one credit course is meant to give students practice speaking in front of a scientific audience and to explore topics in detail. Students will research topics and organize presentations for faculty and other students. The topics may be any aspect of the biological sciences and must be approved by the instructor in advance (see schedule for deadline).
Credits: 1

BIOG-532: Molecular Biology of the Cell

This course discusses the relationship of structure and functions of the different components of the cell at the molecular level. It also takes up the complex interactions among cells and the different techniques used in the study of the cell.
Credits: 4

BIOG-533: Ecological and Environmental Biology

This course provides an introduction to the basic principles of environmental biology, ecology, and the relationship between humans and the natural world. Conservation, pollution, energy and other contemporary ecological problems are just some of the topics which will be addressed.
Credits: 4

BIOG-534: Evolutionary and Systematic Biology

This course provides an overview of the mechanisms and processes of change at the population, organismal, cellular, and molecular levels. It also provides an overview of the history of Earth and its biota including geological time, fossils, and man.
Credits: 4

BIOG-549: Biochemistry

This course explores the basic principles of biochemistry and develops the student's appreciation and understanding of biological networks.
Credits: 3

BIOG-599: MS Research

The purpose of this course is for the design and performance of research leading to a Masters. See note on page 577 related to thesis hours.
Credits: 1-6

BIOG-600: MS Thesis

The purpose of this course is for the design and performance of research leading to a Masters. See note on page 577 related to thesis hours.
Credits: 1-6

BIOG-699: PhD Research

The purpose of this course is for the design and performance of research leading to a Ph.D. This 6 credit hour course can be taken multiple times, but only once per semester. Additional information about the limitation of the use of these courses can be found in individual schemes. See note on page 577 related to research and dissertation hours.
Credits: 6

BIOG-700: PhD Dissertation

The purpose of this course is for the design and performance of research leading to a Ph.D. See note on page 577 related to research and dissertation hours.
Credits: 1-12

Brass Ensemble

MUTE-131: Brass Ensemble V

Students will be assigned with trumpet, French horn, trombone and tuba ensemble works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.
Credits: 1

MUTE-132: Brass Ensemble VI

A continuation of MUTE-131. Weekly coaching and rehearsals in brass ensembles.
Credits: 1

MUTE-141: Brass Ensemble VII

A continuation of MUTE-132. Weekly coaching and rehearsals in brass ensembles.
Credits: 1

MUTE-142: Brass Ensemble VIII

A continuation of MUTE-141. Weekly coaching and rehearsals in brass ensembles.
Credits: 1

Chemical Engineering

CHEG-228: Advanced Spectroscopy

The chief aim of this course is to provide an understanding of how the tools of modern spectroscopy can be applied to unravel the structural and dynamical properties of molecular systems, with a focus on optical techniques. The course will cover the theoretical basis of light-matter interactions and factors governing the rotational, vibrational and electronic spectra of diatomic and polyatomic molecules. It will conclude with a consideration of what can be learned when cuttingedge spectroscopic techniques are applied to large, complex systems.
Credits: 3

CHEG-232: Environmental Chemistry

Environmental chemistry is an introduction to chemical processes that regulate the composition of air, water, and soil. Attention is paid to understanding chemical equilibrium and kinetics of natural systems and how they are influenced by human actions.
Credits: 3

CHEG-291: Advanced Kinetics

This course is an introduction to advanced thermodynamic and kinetic analysis of chemical processes. We build on your introduction to thermodynamics by studying solutions, multiphase systems, and equilibrium. We will cover thermodynamic aspects of phase diagrams, partial molar quantities, thermodynamics of mixing, chemical potential, liquid mixtures, colligative properties, vapour pressure diagrams, liquid-liquid phase diagrams, solid-liquid phase diagrams, activity coefficients, spontaneous chemical change, gas equilibrium, response of equilibrium to external conditions, and extent of chemical reaction
Credits: 3

CHEG-412: Transport Phenomena

Introduction to the treatment of the mechanisms of heat, mass, and momentum transport on a continuum basis. Methods of solution to transport problems are introduced with emphasis on coupled systems where two

or more transport processes interact. Introduction to boundary layer and turbulent systems.
Credits: 3

CHEG-425: Intro to Biomedical Engineering

This course teaches students to understand the application of engineering principles to the study of various functions of the human body, including breathing, muscle movement and blood circulation.
Credits: 3

CHEG-430: Nanomaterials

This course covers the basic principles associated with nanoscience and nanotechnology including the fabrication and synthesis, size dependent properties, characterization, and applications of materials at nanometer length scales with an emphasis on recent technological breakthroughs in the field.
Credits: 3

CHEG-501: Advanced Transport

Advanced treatment of the mechanisms of heat, mass, and momentum transport on a continuum basis. Methods of solution to transport problems are looked at in depth with emphasis on coupled systems where two or more transport processes interact. Introduction to boundary layer and turbulent systems.
Credits: 3

CHEG-502: Advanced Thermodynamics

Advanced treatment of the fundamentals of thermodynamics; Energy; Reversibility, concepts and consequences. Thermodynamics of mixtures; phase equilibria; and chemical equilibria.
Credits: 3

CHEG-504: Advanced Mathematics

Use of the basic laws of conservation of momentum, mass and energy to formulate partial differential equations describing chemical engineering processes. Analytical and numerical solution of partial differential equations. Matrices, vector analysis, and selected topics.
Credits: 3

CHEG-505: Advanced Chemical Eng. Reactions

Advanced treatment of chemical reaction engineering including effects of non-ideal flow and fluid mixing on reactor design. Multi-phase reaction systems of non-heterogeneous catalysis and catalytic kinetics.
Credits: 3

CHEG-601: Graduate Research

Supervised research course reserved for working to fulfil the requirement for milestone projects (thesis equivalency, dissertation proposal, etc.).
Credits: 1

CHEG-602: Graduate Research

Supervised research course reserved for working to fulfil the requirement for milestone projects (thesis equivalency, dissertation proposal, etc.).
Credits: 2

CHEG-701: MS Thesis I

The purpose of this course is for the design and performance of research leading to a Masters. See note on page 577 related to thesis hours.
Credits: 1-3

CHEG-702: MS Thesis II

The purpose of this course is for the design and performance of research leading to a Masters. See note on page 577 related to thesis hours.

Credits: 1-3

CHEG-801: Graduate Seminar I

Students are expected to register for Graduate Seminar each semester during their tenure in our program.
Credits: 1

Chemistry

CHEM-122: Analytical Chemistry

The course gives an introduction to inorganic and organic analytical chemistry, including basic analytical methods
Credits: 3

CHEM-201: Inorganic Chemistry

This course provides an overview of fundamental topics in inorganic chemistry. Bond theory: Atomic orbitals importance for chemical bonding, covalent bonding, ionic and lattice enthalpy, metal bonding, metals, semiconductors and insulators, forces between molecules, the structure of molecules, liquids and solids.
Credits: 3

CHEM-231: Advanced Analytical Chemistry

Course Description: This course is designed to provide graduate students an advanced, cohesive understanding of analytical chemistry methods and instrumentation to promote success in their graduate careers. The student is expected to dedicate significant effort both in and out of lectures to be successful.
Credits: 3

CHEM-243: Advanced Organic Chemistry

This course deals with the application of structure and theory to the study of organic reaction mechanisms: stereochemical features including conformation and stereo electronic effects; reaction dynamics, isotope effects and molecular orbital theory applied to pericyclic and photochemical reactions; and special reactive intermediates including carbenes, carbanions, and free radicals.
Credits: 3

CHEM-243: Advanced Organic Chemistry

This course deals with the application of structure and theory to the study of organic reaction mechanisms: stereochemical features including conformation and stereo electronic effects; reaction dynamics, isotope effects and molecular orbital theory applied to pericyclic and photochemical reactions; and special reactive intermediates including carbenes, carbanions, and free radicals.
Credits: 3

CHEM-244: Physical Organic Chemistry

The course covers selected special topics pertinent to current research in physical organic chemistry with an emphasis on bonding and reactivity. Topics include molecular structure and thermodynamics, intermolecular forces, reactivity and mechanisms, stereochemistry and electronic structure. See page 577 for additional information related to Special Topics courses.
Credits: 3

CHEM-246: Organic Spectroscopy

Graduate course in organic spectroscopy. Modern methods used in structure determination of organic molecules. Topics include mass spectrometry; ultraviolet, chiroptical, infrared, and nuclear magnetic resonance spectroscopy.
Credits: 3

CHEM-251: General Biochemistry

A comprehensive survey of the chemistry and metabolism of biological compounds, including proteins, polysaccharides, lipids, and nucleic acids. Enzyme kinetics, bioenergetics, organelles, and cellular organization. Expression and processing of biological information, including DNA replication; transcription into RNA; translation into protein, regulation, and recombinant DNA techniques. A detailed computer laboratory study of structural biology, including protein and nucleic acid threedimensional structures and the interactions between these and ligands.
Credits: 3

CHEM-258: Biophysical Chemistry

This course will introduce measurement and analysis of physical phenomena as they pertain to biological macromolecules including structure and energetics. Discussions of physical phenomena will be used to introduce techniques in physical biochemistry, the equations derived to describe the phenomena, and the analysis and interpretation of data
Credits: 3

CHEM-275: Quantum Chemistry

The course is dedicated to learning practical aspects of advanced quantum chemistry. The students are expected to have good understanding of Quantum Mechanics and knowledge of Molecular Orbital Theory and basic Quantum Chemistry tools.
Credits: 3

CHEM-278: Advanced Physical Chemistry I

Advanced Physical Chemistry focuses on topics in modern experimental physical chemistry including nanoscience, laser spectroscopy and chemical dynamics, optical and scanning probe microscopy, non- linear optics, and plasmonics.
Credits: 3

CHEM-279: Advanced Physical Chemistry II

A continuation of CHEM-278. Advanced Physical Chemistry focuses on topics in modern experimental physical chemistry including nanoscience, laser spectroscopy and chemical dynamics, optical and scanning probe microscopy, non- linear optics, and plasmonics.
Credits: 3

CHEM-284: Computational Methods

The course is an introduction to the properties and computational implementations of basic methods of scientific computing. The main thrust is intelligent use of mathematical software, although important theoretical results are explained.
Credits: 3

CHEM-297: Planetary Atmospheres

This course covers topics include atmospheric structure & composition, remote sensing methods, atmospheric circulation, atmospheric chemistry, origin & evolution of atmospheres, jovian planet atmospheres & interiors, atmosphere-magnetosphere interaction, cometary activity, habitable zones around stars.
Credits: 3

CHEM-341: Organic Chemistry

Organic chemistry provides the student with the necessary background to understand the chemistry of carbon-containing compounds. Topics will include structure, stereochemistry, nomenclature, synthesis, properties, and reactions of the major classes of organic compounds
Credits: 3

CHEM-411: Research in Inorganic Chemistry

This course focuses on the nature and practice of inorganic chemistry. Students will conduct research into a particular chemical problem with a faculty research advisor and will discuss their research at a weekly seminar. A report on their research will be written.
Credits: 1

CHEM-421: Research in Analytical Chemistry

This course focuses on the nature and practice of analytical chemistry. Students will conduct research into a particular chemical problem with a faculty research advisor and will discuss their research at a weekly seminar. A report on their research will be written.
Credits: 1

CHEM-441: Research in Organic Chemistry

This course focuses on the nature and practice of organic chemistry. Students will conduct research into a particular chemical problem with a faculty research advisor and will discuss their research at a weekly seminar. A report on their research will be written.
Credits: 1

CHEM-451: Research in Biochemistry

This course focuses on the nature and practice of biochemistry. Students will conduct research into a particular chemical problem with a faculty research advisor and will discuss their research at a weekly seminar. A report on their research will be written.
Credits: 1

CHEM-471: Research in Physical Chemistry

This course focuses on the nature and practice of physical chemistry. Students will conduct research into a particular chemical problem with a faculty research advisor and will discuss their research at a weekly seminar. A report on their research will be written.
Credits: 1

CHEM-600: PhD Dissertation

The purpose of this course is for the design and performance of research leading to a Ph.D. See note on page 577 related to research and dissertation hours
Credits: 1-9

Civil Engineering

CEIE-634: (GMU) Geoenvironmental Design

Principles of waste geotechnics, including the design of landfill liners/covers, fate of pollutant transport in groundwater, transport processes, modeling techniques for flow and transport, waste settlement, and groundwater remediation technologies such as the biodegradation of waste. Prerequisites: CIEG-434.
Credits: 3

CIEG-466: Traffic Engineering II

Involves the introduction to traffic impact analysis, and use of traffic simulation models for evaluating traffic operation on highway networks, including traffic impact studies and signal warrant analyses. This course provides theoretical and practical applications of traffic operations and analysis. Prerequisites: CIEG-351; CIEG-416; CIEG-465.
Credits: 3

CIEG-500: Special Topics in Structures

Material is not ordinarily available in regular structural engineering course offerings or new courses on a trial basis. Prerequisites: CIEG-314.
Credits: 3

CIEG-501: Environmental Biological Processes

Combines fundamental microbiology into engineered systems; includes design of wastewater treatment systems and modeling of biological reactions.
Credits: 3

CIEG-502: Physical/Chemical Process for Water Treatment

Theory, analysis and engineering design of physical and chemical systems in environmental pollution control. Topics include mechanisms involved in physical/chemical destruction of pollutants, clarification, softening, coagulation and others.
Credits: 3

CIEG-503: Adv Design of Steel Structure

Covers the fundamental physical and chemical concepts necessary to design environmental systems; focus is on the design of water treatment systems and recent advances in water treatment plant design.
Credits: 3

CIEG-504: Intelligent Transportation Systems

Command, controls and communications in modern multimodal transportation; infrastructure/highway and vehicle automation, advanced traffic management, vehicle control and safety systems; information data, and sensory requirements; practical application. Prerequisites: CIEG-351; CIEG-416; CIEG-465.
Credits: 3

CIEG-507: Traffic Flow Theory

This course is mainly oriented towards transportation engineering students interested in learning the fundamentals traffic engineering studies. The course is structured on the basic objective for students to be able to understand Traffic Flow Modeling, Transportation Networks Modeling and Traffic Assignment, Detection and Forecasting, Traffic Control and Optimization. This course includes details of macroscopic and microscopic models. Prerequisites: CIEG-351; CIEG-416; CIEG-465.
Credits: 3

CIEG-509: Structures Research Project II

An investigation conducted independently by a student and guided by the instructor that makes an original and creative contribution to the structural engineering discipline. Prerequisites: CIEG 555
Credits: 3

CIEG-511: Environmental Chemistry

Application of chemical equilibrium and kinetics to aquatic systems. Focus is on chemical principles as applied to natural systems, water treatment and wastewater treatment processes. Topics include thermodynamics, kinetics, redox reactions, acid/base chemistry, titrations and buffers, adsorption and complexation.
Credits: 3

CIEG-513: Matrix Structural Analysis

This course covers the theory and application of traditional structural analysis for trusses, beams, frames, cables, and arches as either determinate or indeterminate systems. Topics covered will include matrix methods including the direct stiffness method, and flexibility and stiffness method with introduction to computer-based techniques.

Credits: 3

CIEG-514: Finite Element Analysis

An introduction to the Finite Element method in the study of the static response of structures and of continua. This course also provides hands on experience using finite element software. It includes applications to field problems; analytical methods emphasized, and digital computer application

Credits: 3

CIEG-520: Adv Mechanics of Materials

This course teaches the fundamentals for the analysis of materials and structures in engineering with a specific focus on aircraft and space structures. .. The Solid Mechanics module covers general material relating to the analysis of stresses, strains, deformation, and strength in solid materials and simple components.

Credits: 3

CIEG-524: Anal Plate & Shell Structure

This course deals with the theory and design of thin shell structures, using the membrane and bending theories for of shells of revolution and translation, and their application to analysis of domes, hyperbolic, paraboloid, elliptic and cylindrical shells. The course also introduces the finite element method for plate bending.

Credits: 3

CIEG-529: Introduction to Structural Protective Systems

An introductory course about the application of emerging technologies for the protection of civil engineering structures and fundamental concepts for analysis and design. Prerequisites: CIEG-314

Credits: 3

CIEG-535: Elastic Inelastic of Structure

Solution of linear elastostatic problems using special techniques. Field equations of linear elastostatics; uniqueness of solution; Betti/Rayleigh reciprocity relation; solution of two-dimensional problems using stress functions; stress concentration at holes and inclusions; complex variables and transform methods in elasticity; stress singularity at cracks and corners; stresses and strains in composites; three-dimensional problems.

Credits: 3

CIEG-536: Dynamics of Structures

This course will cover the theory of structural response to dynamic loads. Students will learn to compute the dynamic response of structural components (like beams, walls, and columns) and structural systems under dynamic loads such as blast and earthquake excitations.

Credits: 3

CIEG-544: Transportation Engineering Research

Introduction to research conducted independently by a student and supervised by the instructor that makes a fundamental contribution to the transportation engineering discipline. Students are required to prepare reports. Prerequisites: Graduate status or approval of instructor.

Credits: 3

CIEG-553: Environmental Engineering Project Research

Independent research on advanced topics in environmental engineering. Student must prepare literature review of topic. Focus is on reviewing, analyzing and presenting research.

Credits: 3

CIEG-555: Structures Project Research

Introduction of an investigation conducted independently by a student and guided by the instructor that makes an original and creative contribution to the structural engineering discipline

Credits: 3

CIEG-555: Structures Research Project

Credits: 3

CIEG-556: Hydraulic Project Research

Course is designed for individual students who seekdeeper knowledge of hydrology and hydraulics, through research, the use of software, and publication of research in journals

Credits: 3

CIEG-557: Advanced Hydrology

An introduction to physical and applied hydrology and explores the components of the hydrologic cycle including processes of precipitation, evaporation, transpiration, infiltration, ground-water flow, surface runoff and streamflow.

Credits: 3

CIEG-561: Master Thesis

All Master candidates must complete an approved research project that demonstrates his or her ability to conduct original, independent research that constitutes a distinct contribution to knowledge in the principal field of study.

Credits: 3

CIEG-567: Construction Project Management

This course covers elements of management related to construction projects; responsibilities of construction managers, on-site representatives, engineers and inspectors; concept of developing the project team approach. The student will gain knowledge of the roles and responsibilities of a project manager, including technical and management skills and an overview of the phases in a construction project. The student will develop knowledge and skills in safety, interpersonal communication, negotiation and conflict resolution, construction documents, construction planning, estimating and cost control,scheduling, resource control, quality control and continuous improvement. Students will also be introduced to construction project management software program(s) used in the industry. Prerequisites:CIEG-354, CIEG 351 or approval of instructor.

Credits: 3

CIEG-579: Advanced Traffic Engineering

An introduction to advanced traffic and transportation engineering. It involves the collection and use of traffic engineering data and introduces students to traffic operations and safety. Students use software for capacity analysis and signal optimization. Students are required to prepare reports. Prerequisites: CIEG-351; CIEG-416; CIEG-465.

Credits: 3

CIEG-600: Advanced Soil Mechanics

This course covers: 1) the elastoplastic response of soils highlighting issues such as the influence of structure, time, environment, drainage, and stress history on their anisotropic behavior, 2) critical state soil mechanics, 3) stress-dilatancy, stress paths, 4) 2D water flow, 5) 2D consolidation, and 6) slope stability. Prerequisites: CIEG-434.

Credits: 3

CIEG-603: Advanced Foundation Engineering

This course covers: 1) geotechnical site investigation methods and in-situ tests to estimate soil engineering properties, 2) discussion on concepts of factors of safety, margin of safety, reliability, and load and resistance factor design, 3) parameter selection, analysis, and design of shallow and deep foundations, and 4) analysis and design of earth retaining structures. Prerequisites: CIEG-433.

Credits: 3

CIEG-605: Research Methods

The aim of this course is to develop students' knowledge and understanding of the role and conduct of quantitative and qualitative research methods in planning [and urban design]. Intellectual and methodological debates will be discussed in order to assist students to develop informed opinions and a critical appreciation for other's research. The imperative for ethical research practice will be presented. The course equips students with the skills to review and conduct methodologically sound research as a part of their professional work.
Credits: 3

CIEG-608: Civil & Environmental Engineering Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D. See note on page 577 related to dissertation hours.
Credits: 9

CIEG-614: Special Topics in Geotechnical Engineering I

Involves an individually-supervised study or independent design or research in specialized topics not covered in regular geotechnical engineering courses or of particular interest to the student. The student must review pertinent literature, prepare a project outline, carry out an approved plan, and submit a research paper/formal final report. Prerequisites: CIEG-434.
Credits: 3

CIEG-615: Special Topics in Geotechnical Engineering II

A continuation of CIEG 614. Involves an individually-supervised study or independent design or research in specialized topics not covered in regular geotechnical engineering courses or of particular interest to the student. The student must review pertinent literature, prepare a project outline, carry out an approved plan, and submit a research paper/formal final report. Prerequisites: CIEG-434.
Credits: 3

CIEG-616: Advanced Optimization

Principles of linear and nonlinear programming and metaheuristic algorithms. Fundamentals of machine learning-assisted optimum design considering uncertainty.
Credits: 3

CIEG-618: Transportation Engineering Project

Introduction to research conducted independently by a student and supervised by the instructor that makes a fundamental contribution to the transportation engineering discipline. Students are required to prepare reports. Prerequisites: Graduate status or approval of instructor.
Credits: 3

CIEG-619: Urban Transit Planning

An introduction to urban transit operations and planning. This course includes transit operations, service scheduling and capacity analysis. This also includes Transit systems planning and modeling. This course includes best-practice of urban transit systems and planning. Prerequisites: Graduate status or approval of instructor
Credits: 3

CIEG-620: Transportation Systems Modeling and Analysis

This course is mainly oriented towards transportation engineering students interested in learning the fundamentals of econometric and machine learning studies. The course is structured on the basic objective for students to be able to conduct several literature reviews, data collection, analysis, modeling, forecasting, and report writing. To facilitate this, the course will introduce students to count data modeling, econometric modeling, machine learning modeling, and coding in Gauss and Python. Prerequisites: Graduate status or approval of instructor.

Credits: 3

CIEG-622: Earthquake Engineering Research I

Introduction to an investigation conducted independently by a student and guided by the instructor that makes an original and creative contribution to the earthquake engineering discipline. Prerequisites: CIEG-314
Credits: 3

CIEG-626: Advanced Research in Environmental Engineering

This course provides in-depth coverage of the physical, chemical, and biological processes used for pollution control. Specific topics included in this course are as follows:�unit analysis of physical, chemical, and biological processes, environmental hydraulics, water quality modeling, and water and waste treatment theory, analysis, and design.
Credits: 3

CUGW CE-6301: Advanced Reinforced Concrete Design

Reinforced concrete structures design, framing system, preliminary/final design, load estimate, one-way slabs, beams, axially loaded columns and isolated foundation, reinforcement details, CAD drawings, and final report. Restricted to undergraduate students in civil and environmental engineering.
Credits: 3

CUGW CE-6302: Pre-stressed Concrete Structures

Structural behavior and failure modes of prestressed concrete structures; design in prestressed concrete, including long-span structures, bridges, and precast systems
Credits: 3

CUGW CE-6320: Design of Metal Structures

Structural behavior of metal structures and composite girders. Conception, analysis, and design of low-rise and high-rise buildings by elastic and inelastic methods. Earthquake considerations and special topics.
Credits: 3

CUGW CE-6340: Structural Dynamics

Vibration of continuous systems: membranes, beam plates, and shells; approximate methods of vibration analysis; methods of integral transform; analysis of nonlinear systems; wave propagation.
Credits: 3

ENCE-647: (UMD) Slope Stability and Seepage

Theoretical and practical aspects of seepage effects, and groundwater flow, review of shear strength principles, flow through porous media, hydraulic conductivity, flow nets, determination of water pressure, seepage forces and quantity of seepage, laboratory and field tests for shear strength, infinite slopes, block analysis, method of slices, seismic analysis of slopes, effective and total stress analysis, computer programs for slope stability analysis, slope stability problems in waste disposal, construction excavations, reinforced embankments, embankments on soft ground. Prerequisites: CIEG-434
Credits: 3

ENCE-741: (UMD) Earth Retaining Structures

Types and uses of earth retaining structures and lateral earth pressure concepts and theories; analysis and design of retaining walls and shoring structures and their bracing systems, including conventional retaining walls, mechanically stabilized earth walls, cantilever and anchored sheet piling, cellular cofferdams, braced cuts, soil nailing, and the design of tiebacks and anchors; load and resistance factor design concept. Prerequisites: CIEG-434.
Credits: 3

ENCE-743: (UMD) Soil Dynamics and Earthquake Engineering

Theory of vibration and wave propagation in elastic media. Field and laboratory methods for determining dynamic soil properties. Analysis and design of soil-foundation systems subjected to machinery-generated vibrations and methods of foundation isolation. Earthquake causes, magnitude and intensity, seismic hazard evaluation, NEHRP site classification, site response analyses and ground motion amplification, liquefaction, and response of earth structures. Prerequisites: CIEG-434
Credits: 3

Clarinet

MUTS-231: Clarinet Major
Continuation of MUTS-221, 222.
Credits: 4

Prerequisites:

MUTS-221, 222 or consent of instructor.

MUTS-232: Clarinet Major
Continuation of MUTS-221, 222.
Credits: 4

Prerequisites:

MUTS-221, 222 or consent of instructor.

MUTS-241: Clarinet Major

Continuation of MUTS-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUTS-231, 232.

MUTS-242: Clarinet Major

Continuation of MUTS-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUTS-231, 232.

MUTS-301: Graduate Clarinet Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUTS-302: Graduate Clarinet Minor II

A continuation of MUTS-301. This course builds upon Clarinet performance techniques.
Credits: 3

MUTS-303: Graduate Clarinet Minor III

A continuation of MUTS-302. This course builds upon Clarinet performance techniques.
Credits: 3

MUTS-304: Graduate Clarinet Minor IV

A continuation of MUTS-303. This course builds upon Clarinet performance techniques.
Credits: 3

MUTS-311: Graduate Clarinet Major I

Private instruction in performance for graduate students.
Credits: 5

MUTS-312: Graduate Clarinet Major II

Private instruction in performance for graduate students.
Credits: 5

MUTS-321: Graduate Clarinet Major III

Private instruction in performance for graduate students.
Credits: 5

MUTS-322: Graduate Clarinet Major IV

Private instruction in performance for graduate students.
Credits: 5

Clinical & Pharmacy Science

CLPS-021: IPPE I

The primary goal of Introductory Pharmacy Practice Experiences (IPPEs) is to provide the student with an opportunity to experience a broad range of pharmacy practice experiences early in the student's academic career. IPPEs are characterized by various assignments provided to students from their P1 through P3 including actual practice experiences in community and institutional settings. IPPE provides an introduction to the profession and continue in a progressive manner leading to entry into Advanced Pharmacy Practice Experiences (APPEs) that they will complete during the fourth professional year.
Credits: 4

Prerequisites:

Successful completion of all courses in the first professional year, the IPPE I Rotation, and Co-curricular Requirements.

CLPS-022: IPPE II

The primary goal of Introductory Pharmacy Practice Experiences (IPPEs) is to provide the student with an opportunity to experience a broad range of pharmacy practice experiences early in the student's academic career. IPPEs are characterized by various assignments provided to students from their P1 through P3 including actual practice experiences in community and institutional settings. IPPE provides an introduction to the profession and continue in a progressive manner leading to entry into Advanced Pharmacy Practice Experiences (APPEs) that they will complete during the fourth professional year.
Credits: 4

Prerequisites:

Successful completion of all courses in the first professional year, the IPPE II Rotation, and Co-curricular Requirements.

CLPS-220: Drugs & Elderly

This course is an interdisciplinary course designed to sensitize the student to the special physiological, psychological, sociological, and economic aspects of aging. In addition, special attention will be given to specific drug problems and solutions to these problems.
Credits: 3

Prerequisites:

Pharmacological Therapeutics I and Biopharmaceutics.

CLPS-235: Health Care Ethics

This course introduces students to ethical and to bioethical issues confronting healthcare providers within the practice setting. The course introduces students to how ethical theory and principles work to critically analyze and construct well concerned responses to ethical dilemmas. By utilizing the Beaubeu Grid method to collect and analyze case information students will refine their critical thinking skills (both verbal and written) as they read, write, discuss, and resolve the case material presented in class. Emphasis on collaborative dialogue between and among the disciplines represents the hallmark of this course. Finally, the course will familiarize students with ethical and legal considerations, patient-provider relationships, professionalism, and the concepts of moral reasoning.

Credits: 2

CLPS-242: Herbal and Complementary Therapy

Herbal and Complementary Medicines, including phytomedicine, are becoming an integral part of our society and the growing self-medicating trend among consumers. This course is designed to provide students with the background that they need to advise patients on the sensible use of herbs and to promote public health and safety. Emphases will be placed on the need for phytomedicinals as alternative therapies, the safety and efficacy of herbal preparations, and the role of pharmacists in helping consumers select useful and safe herbal products. The regulatory and legislative aspects of marketing and selling phytomedicinals in the U.S. will also be discussed. Readings will include relevant articles and publications.

Credits: 3

Prerequisites:

Pharmaceutical Chemistry I & II.

CLPS-301: Emergency Preparedness for Healthcare Providers

The purpose of this course is to train health care professional students on their role in preparing citizens to be better prepared to respond to emergencies in their communities. This course will train students to provide critical support to first responders, immediate assistance to victims and help organize spontaneous volunteers at a disaster site. Lastly students will learn how to coordinate outreach efforts to improve community resilience. Completion of this course will help meet the training requirements to be a volunteer for the Capitol City Pharmacy MRC.

Credits: 3

CLPS-302: Research in Clinical Administrative Pharmacy Sciences

The course deals with an introduction to techniques and methodologies in clinical pharmacy research. Emphasis on literature retrieval, design/conduct of experiments on a specific problem, drug therapy clinical studies or pharmacy administration topics, and analysis and interpretation of data for a written report.

Credits: 3

Prerequisites:

Minimum cumulative GPA of 2.75 and permission of the instructor.

CLPS-304: Global Leadership in Interprofessional Research (IPE)

This course was developed as a partnership between the Howard University College of Nursing and Allied Health Sciences, the Howard University College of Pharmacy, and the University of the West Indies in Mona, Jamaica. Through a series of online lectures, interdisciplinary learning exercises, and scholarly writing activities, students will learn about their role in public health research. They will develop a report and have open dialogue across professions to enhance baseline knowledge and skills in health sciences research, with a focus on public health. Special emphasis will be placed on cultivating a deeper understanding of the United States' (US) healthcare system compared to that of a different country. Students will use research principles to explore how these systems affect various health care professions, as well as the global patient communities that they serve. Salient themes of interprofessional collaboration, leadership, public health research, global health, and cultural awareness will be covered throughout the course content. The course will include a 7-day trip to Jamaica. Here, students will implement team-based research projects at local health centers, participate in guided tours of health care facilities as well as cultural landmarks that teach about the evolution of healthcare in Jamaica. Finally, students will participate in a service-learning activity (a community health fair) in collaboration with health science students at University of West Indies in Jamaica. *This hybrid course will be taught online with three inclass meetings.
Credits: 3

Prerequisites:

None

CLPS-306: Drug Informatics

This course refers to the application of technology in the delivery of drug information services. Drug information services, in turn, include responding to drug information inquiries, conducting medication use evaluations and participating in medication quality assurance programs, such as; monitoring adverse drug reactions, drug and herbal product interactions, and medications errors. This course is intended to introduce students to drug information skills required to deliver pharmaceutical care. Students will be trained to develop the skills to obtain information from various literature and reference sources to answer drug information questions efficiently. Techniques for researching and evaluating drug literature will be covered. Emphasis will be placed on systemic approaches to formulation of responses utilizing both verbal and written communication skills.
Credits: 2

CLPS-311: Pharmaceutical Care

This course is an introductory development course. Quantitative skills necessary for an understanding of the 37 basic and clinical pharmaceutical sciences will be explored. Various techniques necessary in pharmaceutical calculations employed by the pharmacist in formulation, compounding, manufacturing and dispensing of medications will be discussed. The course will also provide the student with the development of skills to recognize errors in prescribing in both oral and written medication orders, basic patient and professional staff communication and basic patient data collection skill. Commonly used equipment and pharmaceutical dosing devices available in a variety of simulated practice settings will be introduced.
Credits: 3

CLPS-316: Biostatistics/Res Methods

This course serves as an introduction to the principles of biostatistics, study design and analysis. Students will learn basic statistical methods using contemporary computer-based statistical packages, and the application of statistics to pharmacy-based research. The course will introduce students to the elements of scientific research, the scientific process, and the role of research in clinical practice and pharmaceutical care. After this course, students should be able to understand the key elements of the scientific process and study design, and the application of statistical analysis to this process.
Credits: 4

Prerequisites:

None

CLPS-318: Pharmaceutical Law and Policy

The Pharmaceutical Law and Policy course is designed to provide students with an understanding of key legal and policy issues (past and present) associated with and that shape the practice of pharmacy.
Credits: 3

Prerequisites:

None

CLPS-319: Professional Practice Readiness I

This course utilizes principles of team-building and case-based learning to develop student understanding of the practical aspects of contemporary pharmacy practice. Instructors will introduce students to the Pharmacist's Patient Care Process (PPCP), covering the first three steps in the five-step process. Emphasis will be placed on both the verbal and written communication skills needed to interact with a variety of patients and across health care disciplines. Heavy focus will be placed on navigating the outpatient pharmacy setting, which involves acquiring preliminary knowledge about prescription handling and inventory management, as well as applied knowledge of OTC products and the most utilized prescription drugs. In addition, students will learn patient-counseling techniques, and develop basic physical assessment and clinical writing skills.
Credits: 3

CLPS-320: Professional Practice Readiness II

This course is designed to assess the skills of 3rd-year pharmacy students using an active learning format. All five steps of the Pharmacist's Patient Care Process (PPCP) will be covered, and students must demonstrate, through fulfillment of the ACPE-derived core competencies, mastery of the pre-APPE domains. As an addendum to the course, students are expected to complete structured patient care activities (MTM) at designated sites that will enhance knowledge and skills in care delivery. Students will also be required to complete at least 1 encounter related to inter-professional education (IPE).
Credits: 3

CLPS-323: Pharmacoepidemiology & Outcome Res

The Pharmacoepidemiology and Outcomes Research section is an introduction to the evaluation of the scientific studies that supports the rational use of medication use in humans. The goals of this block is to provide opportunities for students to understand the concepts, methods, and applications of epidemiology, pharmacoeconomics, and outcomes studies utilized in clinical settings as well as with to provide tools to critically assess the clinical literature. In addition, the methods for the interpretational and generalization of findings from these studies relevant to medical and pharmaceutical care practice will be introduced by utilizing knowledge developed from the Research Methods/Biostatistics block. Students will be also prepared for problem-based critique sessions in the Integrative Therapeutics blocks.
Credits: 3

Prerequisites:

Biostatistics/ Research Methods.

CLPS-340: Pharm Jurisprudence

The course involves an examination of the laws and regulatory issues pertaining to the practice of pharmacy. Specifically, the course will focus on pertinent sections of the Federal Controlled Substances Act, Food Drug and Cosmetic Act, as well as an overview of the state board of pharmacy acts and rules governing Virginia, Maryland, and the District of Columbia.
Credits: 3

Prerequisites:

None

CLPS-353: IT Lab 4

The Integrative Therapeutics (IT) Lab 7 and 8 are modular formatted courses which are organized by organ systems. The IT Lab 4 courses are intended to provide the student with a review of prescription and non-prescription (OTC) medications and medical devices and health care products commonly encountered in pharmacy practice. The appropriate selection, rational use, therapeutic efficacy and issues, warnings, precautions, contraindications, drug interactions, use in pregnancy and lactation of prescription and non-prescription medications will be studied. In addition, an emphasis will be placed on counseling patients on the selection and proper use of non-prescription (OTC) medications and devices. The course will provide students with opportunities for increasing their problem-solving skills through the use of a modified problem-based learning approach. Students are scheduled to attend two large group sessions each week.
Credits: 2

Prerequisites:

None

CLPS-363: IT 5 - Oncology/Hem/Pain Palliative

Module Content: Neoplastic Disorder: General Principles and Pathophysiology, Principles of Drug Therapy, Acute Myelogenous Leukemia & Acute Lymphocytic Leukemia, Chronic Myelogenous Leukemia & Chronic Lymphocytic Leukemia, Breast Cancer, Lung Cancer, Ovarian and Cervical Cancer, Bone Marrow Transplantation, Prostate Cancer, Acute and Chronic Pain Therapeutics, Lymphomas, Colorectal Cancer, Anemias, Hemoglobinopathies, Renal Cancer, Supportive Care, Death and Dying.
Credits: 3

CLPS-364: IT 6 - Endocrine/GI/Renal

Module Content: Diabetes Mellitus, Thyroid Diseases, Adrenal Diseases, Pituitary Gland Disorders, Acute and Chronic Renal Failure, Dialysis and Drug Loss Issues, Alcoholic Cirrhosis, Portal Hypertension, Drug-Induces Liver Disease, Hepatitis, Peptic Ulcer Disease / Zollinger-Ellison Syndrome, Gastroesophageal Reflux Disease, Stress-Related Gastrointestinal; Bleeding, Infectious Gastritis / Pancreatitis, Disorders of the GI Systems: Cholecystitis, Appendicitis, Diverticulitis, Hemorrhoids, Peritonitis, Nausea and Vomiting, Constipation and Diarrhea, Irritable Bowel Syndrome, Inflammatory Bowel Diseases (Ulcerative Colitis and Crohn's Disease), and Nutrition (parenteral / Enteral/ Pediatric).
Credits: 3

CLPS-365: IT Lab 3

The Integrative Therapeutics (IT) Lab III modular formatted courses which are organized by organ systems. The IT Lab 5 and 6 courses are intended to provide the student with a review of prescription and non-prescription (OTC) medications and medical devices and health care products commonly encountered in pharmacy practice. The appropriate selection, rational use, therapeutic efficacy and issues, warnings, precautions, contraindications, drug interactions, use in pregnancy and lactation of prescription and non-prescription medications will be studied. In addition, an emphasis will be placed on counseling patients on the selection and proper use of non-prescription (OTC) medications and devices. The course will provide students with opportunities for increasing their problem-solving skills through the use of a modified problem-based learning approach. Students are scheduled to attend two large group sessions each week.
Credits: 2

Prerequisites:

None

CLPS-366: Applications for Pharmacy Practice 5

This is a continuation of Application in Pharmacy Practice 4 course. The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice 5 course is the fifth in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios.
Credits: 1

CLPS-370: IT 3 Infectious Disease/Antimicrobials

Module Content: Structure- Activity Relationship, Application of Pharmacokinetic - Pharmacodynamic (PK/PD) Principles, and Mechanisms of Action and Resistance for Each Class of Antimicrobial Agents. Appropriate Therapy for Community Acquired Infections Versus Hospital Acquired Infections, Recent Epidemiological Data from the Center for Disease Control and Prevention and Their Guidelines for Treatment, Preventive and Infection Control Measures, Defining the Goals of Infectious Disease Therapy, Selecting Appropriate Infectious Diseases Therapy from Among Available Choices, and Evaluating and Documenting Outcomes.
Credits: 4

CLPS-371: IT 4 Bone, Joint and Immunology

Module Content: Connective Tissue Disorders, Osteoporosis, Gout / Hyperuricemia, Rheumatic disorders, Osteomyelitis/Septic Arthritis, Skin / Dermatotherapy, Drug Induced skin disorders, Acne/Psoriasis, Solid Organ Transplant -Heart, Solid Organ Transplant -Lung, Solid Organ Transplant -Liver, and Solid Organ Transplant -Kidney.
Credits: 2

CLPS-372: IT Lab 2

The Integrative Therapeutics (IT) Lab II modular formatted courses which are organized by organ systems. The IT Lab 3 and 4 courses are intended to provide the student with a review of prescription and non-prescription (OTC) medications and medical devices and health care products commonly encountered in pharmacy practice. The appropriate selection, rational use, therapeutic efficacy and issues, warnings, precautions, contraindications, drug interactions, use in pregnancy and lactation of prescription and non-prescription medications will be studied. In addition, an emphasis will be placed on counseling patients on the selection and proper use of non-prescription (OTC) medications and devices. The course will provide students with opportunities for increasing their problem-solving skills through the use of a modified problem-based learning approach. Students are scheduled to attend two large group sessions each week.
Credits: 2

Prerequisites:

None

CLPS-420: APPE I

The pharmacy practice clerkships are college-coordinated experience-based integrated problem-solving courses designed to help the student become an active participant in providing pharmacy services. The student, under the direction of different preceptors will learn to provide pharmaceutical care in cooperation with patients, prescribers and other members of an interprofessional health care team based on sound therapeutic principles and evidence-based data. This will take into account all relevant legal, ethical, social, economic and professional issues, emerging technologies and evolving pharmaceutical, biomedical, sociobehavioral and clinical sciences that may impact therapeutic outcomes.
Credits: 10

Prerequisites:

Successful completion of all courses up to, and including, the third year; attaining a minimum cumulative GPA of 2.50; co-curricular requirements, and the successful completion of PCOA.

CLPS-421: Advanced Pharm Practice Exp. II

The pharmacy practice clerkships are college-coordinated experience-based integrated problem-solving courses designed to help the student become an active participant in providing pharmacy services. The student, under the direction of different preceptors will learn to provide pharmaceutical care in cooperation with patients, prescribers and other members of an inter-professional health care team based on sound therapeutic principles and evidence-based data. This will take into account all relevant legal, ethical, social, economic and professional issues, emerging technologies and evolving pharmaceutical, biomedical, socio-behavioral and clinical sciences that may impact therapeutic outcomes.
Credits: 15

Prerequisites:

Successful completion of all courses up to, and including, the third year; attaining a minimum cumulative GPA of 2.50.

CLPS-422: Advanced Professional Practice Experience III

The pharmacy practice clerkships are college-coordinated experiencebased integrated problem-solving courses designed to help the student become an active participant in providing pharmacy services. The student, under the direction of different preceptors will learn to provide pharmaceutical care in cooperation with patients, prescribers and other members of an inter-professional health care team based on sound therapeutic principles and evidence-based data. This will take into account all relevant legal, ethical, social, economic and professional issues, emerging technologies and evolving pharmaceutical, biomedical, socio-behavioral and clinical sciences that may impact therapeutic outcomes.
Credits: 15

Prerequisites:

Successful completion of all courses up to, and including, the third year; and attaining a minimum cumulative GPA of 2.50.

CLPS-425: IT 1 - Foundations of IT

Module Content: Assessment of Therapy and Pharmaceutical Care, Interpretation of Clinical Laboratory Tests, Herbs and Nutritional Supplements, Anaphylaxis and Drug Allergies, Managing Acute Drug Toxicity & Clinical Toxicology, Delivering Culturally Competent Care, Acid-Base Disorders, Fluid and Electrolyte Disorders, Drug Interactions, Pharmacogenetics, Geriatrics, Obesity, and Pediatrics. The course will be taught by the clinical faculty to provide instruction utilizing both didactic and practical experience sessions. The course is organized by organ systems of the human body and various diseases associated with them. Students will learn about the pathophysiology and pharmacotherapy of various disease states that health care practitioners (pharmacists) may encounter in their practice settings. Students will learn to make appropriate therapy choices, define goals of therapy, and learn to assess whether these goals are being achieved. Students will learn to create, implement and monitor pharmaceutical care plans. A goal of this course is to prepare students with the ability to render pharmaceutical care and participate successfully for the experiential program. The course is structured in a modular format and complemented with Integrated Therapeutics Laboratory. In order for students to achieve the course goals and objectives, a variety of teaching methods will be applied. Students will participate in traditional lectures, small group discussions, and practical laboratories to reinforce didactic teachings and other learning accesses.
Credits: 3

Prerequisites:

All courses prior to IT1

CLPS-426: IT 2 - Cardiology/Critical Care

Module Content: Hypertension, Heart Failure, Venous Thromboembolism, Hyperlipidemias, Ischemic Heart Disease, Arrhythmias, Pulmonary Arterial Hypertension, Myocardial Infarction, Shock, and Peripheral Vascular Disease. The course is structured in a modular format and complemented with Integrative Therapeutics Laboratory with lectures, labs and onsite practice activities led by clinical faculty. In order for students to achieve the course goals and objectives, a variety of teaching methods will be applied. Students participate in traditional lectures, small group discussions, practical laboratory exercises, onsite senior shadowing with direct patient care activities, SOAP case write-ups, SOAP presentations and Oral exam to reinforce didactic teachings and overall student learning; however, the primary focus of the module is provided by traditional lectures. The Cardiovascular Module engage students in learning about the pathophysiology and pharmacotherapy of various disease states that affect the heart and vasculature with an emphasis on addressing practical information relevant to the practice of pharmacy. Students will learn to make appropriate therapy choices, define goals of therapy, and learn to assess whether these goals are being achieved. Students will learn to create, implement and monitor pharmaceutical care plans. A goal of this course is to introduce students to patient-specific cardiovascular disease state management and enhance their clinical skills. Integrative Therapeutics Lab I complements the didactic Integrative Therapeutics I Cardiovascular Module course and facilitates the process of team building by making the basic knowledge taught in the didactic course "come alive" in structured case studies lab exercises. Thus, the didactic lecture material will be expanded, reinforced and made practical by the case-based learning method. Cases will cover material taught in prior semesters to ensure adequate understanding of both the basic sciences and clinical application of therapeutics. Practice skills on the key assessment parameters required for optimal pharmaceutical care of a patient will be enforced. Assessment skills covered in the lab are those needed to make effective drug therapy decisions or recommendations and monitor the patient's response to drug therapy. These include interpretation of laboratory information, physical assessment, disease and drug monitoring, and case evaluation.
Credits: 3

CLPS-427: IT Lab 1

Group facilitated discussion has been proven to be an aid in learning for students in health professions. Integrative Therapeutics Lab I is a separate course from the didactic Integrative Therapeutics I course and is not designed to prepare students to pass exams given as a requirement of Integrative Therapeutics I. The Lab is designed to facilitate the process of team building by making the basic knowledge taught in the didactic course "come alive" in structured case studies lab exercises. Thus, the didactic lecture material will be expanded, reinforced and made practical by the case-based learning method. Cases will cover material taught in prior semesters to ensure adequate understanding of both the basic sciences and clinical application of therapeutics. Practice skills on the key assessment parameters required for optimal pharmaceutical care of a patient will be enforced. Assessment skills covered in the lab are those needed to make effective drug therapy decisions or recommendations and monitor the patient's response to drug therapy. These include interpretation of laboratory information, physical assessment, disease and drug monitoring, and case evaluation.
Credits: 2

Prerequisites:

None

CLPS-428: Principles of Pharm Adm I

This course is an expansive and in-depth Introduction to Pharmacy Administration. It facilitates the student's management and leadership training by introducing them to a comprehensive overview of management and leadership principles, concepts and practices in pharmacy-based environments. The course further addresses the economic, administrative, entrepreneurial, innovative and human resource aspects of pharmacy practice while furthering students' knowledge on details about the US Health Care System.
Credits: 2

CLPS-450: IT 7 - Neuro/Psych

Module Content: Substance Abuse Disorders, Anxiety Disorders, Dementia - Alzheimer's Disease / Vascular Dementias, Parkinson's Disease, major Depressive Disorders / Bipolar Disorders, Seizure Disorders, Withdrawal Syndromes, Headache, Schizophrenia and Psychotic Disorders, Neuropathic Pain, Fibromyalgia, Ischemic Stroke, ADHD / Tourette's Syndrome/ Enuresis, Sleep Disorders, and Multiple Sclerosis.
Credits: 3

CLPS-451: IT 8 - Special Populations

Module Content: Review of Pulmonary System / Drug Induced Pulmonary Disease, Respiratory Distress Syndromes / Ventilator Functions, Asthma, COPD, Cystic Fibrosis, Review of ENT System: Allergic Rhinitis / Sinusitis, Acute Bronchitis, and Common Cold, Urinary Incontinence, Women's Health - Hormone Therapy, Women's Health - Contraception, Women's Health - Infertility & Endometriosis, Women's Health - Pregnancy and Lactation, Men's Health - Erectile Dysfunction, and Ear and Eye Disorders.
Credits: 3

CLPS-452: Principles of Pharm Admin II

This course is an expansive and in-depth application of the materials taught in Principles of Pharmacy Administration 1. It facilitates the student's application of management and leadership training using case-based approaches and projects to develop and master techniques learned in Principles of Pharmacy Administration 1. The course further addresses the economic, administrative, entrepreneurial, innovative and human resource aspects of pharmacy practice in the context of the US Health Care System from a pharmacist perspective.
Credits: 2

Prerequisites:

Principles of Pharmacy Administration 1.

CLPS-453: Applications for Pharmacy Practice 6

This is a continuation of Application in Pharmacy Practice 5 course. The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice 6 course is the sixth in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios.
Credits: 1

Clinical Dentistry

CLDE-209: Operative Dentistry Lab

The summer semester curriculum of the Operative Lab is designed to teach students how to prepare teeth to be restored with direct restorative materials. This pre-clinical exposure to Operative Dentistry is performed on a dentoform, and procedures simulate the clinical experience. Ergonomics, infection control, selection of armamentarium, preparation of treatment area, principles of cavity preparation, selection of restorative material, proper treatment planning, integration of the basic sciences relative to dental caries, and other conditions requiring restoration are all incorporated in the student's overall learning experience. See note on page 577 related to courses with a range of credit hours.
Credits: 2

CLDE-236: Comprehensive Treatment Planning Lecture

Comprehensive Treatment Planning Lecture.1cr. A post-preclinical course, Comprehensive Treatment Planning Lecture provides a transition for the dental student entering the clinic. Course work, lecture, and online activities will provide students with opportunities to engage in the process of data collection, analysis, evaluation, and synthesis involved in the planning of treatment and the maintenance of oral health rehabilitation. This course will build upon information learned in Operative, Operative Restorative, and Treatment Planning lectures. Through the review of the patient history, collection of clinical and radiographic data, the student will complete hard and soft tissue charting of existing conditions and application of the principles of risk assessment and management. Students will be assessed on development, sequencing, and presentation of treatment plan and technique for obtaining informed consent.
Credits: 1

CLDE-239: Clinical Rotation (D2)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. It is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.
Credits: 0

CLDE-241: Clinical Restorative (D2)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. Department of Restorative Dentistry clinical rotation serves to provide maximum and efficient instruction in all phases of restorative dentistry. Our goal is to enable the student to demonstrate excellence in comprehensive patient care, to render the highest level of clinical restorative therapy to all patients, and to constantly upgrade procedures and treatment to keep abreast with modern procedures of therapy in Restorative Dentistry. For all clinical work to be approved, it must meet a quality standard determined by the department to be functional, properly contoured, promote health of the periodontium, be esthetically acceptable, and show promise of a reasonable length of service. Emphasis will be placed on the quality of service being rendered by the student. This department is responsible for the clinical disciplines of Fixed Prosthodontics and Operative Dentistry.
Credits: 0

CLDE-242: Clinical Periodontics (D2)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This rotation serves to familiarize the student with the Periodontal clinical examination, diagnosis and treatment planning format. The third student will have an introduction to the clinic floor in the Fall semester. This introduction will acclimate the students to the staff that will be assisting them with supplies and sterilization of the instruments on the clinic floor. The senior students will treat patients in the Summer, Fall and Spring Semester. The third and fourth-year competency goals are described in their respective clinical competency outlines.

Credits: 0

CLDE-243: Clinical Endodontics (D2)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. department expects that each student completing the didactic and clinical training in Endodontics will meet the established goals as described in the clinical syllabus.

Credits: 0

CLDE-244: Clinical Prosthodontics (D2)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. D-3 and D-4 students will be paired by the department. D-3 students will be required to observe each appointment with the D-4 student during the fabrication of a complete denture. The D-3 student must document each appointment on the appointed blackboard site (more information to come) and submit reflections on the appointment that they observed.

Credits: 0

CLDE-300: General Dentistry II

This course will continue where the D2 Evidence-Based Decision Making II and D2 Treatment Planning courses left off. The student will utilize the components of Evidence Based Decision-making in patient care and treatment planning. The purpose of this course is to apply the skills of critical thinking and appraisal of the scientific evidence to treatment decisions in an effort to enhance personal and professional satisfaction that you are doing the best for your patients and improve the quality of dental care. The evaluation of the data along with the clinical judgment and values of the clinician help the patient to make decisions about his/her individualized treatment. Clinical cases will be presented to the class by faculty in various disciplines in seminar style where they will discuss the evidence-based decision-making process to determine the treatment plan or completed treatment and/or treatment options. Basic concepts of treatment planning procedures will be presented to the students. Students will be divided into groups of 7- 8, select one case from their collective patient pool and present proposed treatment plan and decisions supported by evidence.

Credits: 2

CLDE-325: General Dentistry I

Information presented in this course is designed to introduce the second year Dental Student to clinic operations and policies at the College of Dentistry. Faculty members will present lectures uniquely designed to transition students from the preclinical setting to the clinic environment. Additionally, selected staff and invited guests will present information relevant to clinical success.

Credits: 1

CLDE-343: Clinical Rotation (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This course is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.
Credits: 4

CLDE-344: Clinical Prosthodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. D-3 and D-4 students will be paired by the department. D-3 students will be required to observe each appointment with the D-4 student during the fabrication of a complete denture. The D-3 student must document each appointment on the appointed blackboard site (more information to come) and submit reflections on the appointment that they observed.
Credits: 3

CLDE-345: Clinical Periodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This rotation serves to familiarize the student with the Periodontal clinical examination, diagnosis, and treatment planning format. The third student will have an introduction to the clinic floor in the Fall semester. This introduction will acclimate the students to the staff that will be assisting them with supplies and sterilization of the instruments on the clinic floor. The senior students will treat patients in the Summer, Fall and Spring Semester. The third and fourth-year competency goals are described in their respective clinical competency outlines.
Credits: 2

CLDE-346: Clinical Endodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. The department expects that each student completing the didactic and clinical training in Endodontics will meet the established goals as described in the clinical syllabus.
Credits: 2

CLDE-348: Clinical Restorative (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. Department of Restorative Dentistry clinical rotation serves to provide maximum and efficient instruction in all phases of restorative dentistry. Our goal is to enable the student to demonstrate excellence in comprehensive patient care, to render the highest level of clinical restorative therapy to all patients, and to constantly upgrade procedures and treatment to keep abreast with modern procedures of therapy in Restorative Dentistry. For all clinical work to be approved, it must meet a quality standard determined by the department to be functional, properly contoured, promote health of the periodontium, be esthetically acceptable, and show promise of a reasonable length of service. Emphasis will be placed on the quality of service being rendered by the student. This department is responsible for the clinical disciplines of Fixed Prosthodontics and Operative Dentistry.

Credits: 2

CLDE-360: Clinical Rotation (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring of the next year. This course is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are 7 components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.

Credits: 0

CLDE-361: Clinical Restorative (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring of the next year. Department of Restorative Dentistry clinical rotation serves to provide maximum and efficient instruction in all phases of restorative dentistry. Our goal is to enable the student to demonstrate excellence in comprehensive patient care, to render the highest level of clinical restorative therapy to all patients, and to constantly upgrade procedures and treatment to keep abreast with modern procedures of therapy in Restorative Dentistry. For all clinical work to be approved, it must meet a quality standard determined by the department to be functional, properly contoured, promote health of the periodontium, be esthetically acceptable, and show promise of a reasonable length of service. Emphasis will be placed on the quality of service being rendered by the student. This department is responsible for the clinical disciplines of Fixed Prosthodontics and Operative Dentistry.

Credits: 0

CLDE-362: Clinical Endodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring of the next year. The department expects that each student completing the didactic and clinical training in Endodontics will meet the established goals as described in the clinical syllabus.

Credits: 0

CLDE-363: Clinical Periodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring of the next year. This rotation serves to familiarize the student with the Periodontal clinical examination, diagnosis and treatment planning format. The third student will have an introduction to the clinic floor in the Fall semester. This introduction will acclimate the students to the staff that will be assisting them with supplies and sterilization of the instruments on the clinic floor. The senior students will treat patients in the Summer, Fall and Spring Semester. The third and fourth year competency goals are described in their respective clinical competency outlines.

Credits: 0

CLDE-364: Clinical Prosthodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring of the next year. D-3 and D-4 students will be paired by the department. D-3 students will be required to observe each appointment with the D-4 student during the fabrication of a complete denture. The D-3 student must document each appointment on the appointed blackboard site (more information to come) and submit reflections on the appointment that they observed.

Credits: 0

CLDE-367: Clinical Rotation (D3)

The curriculum for Clinical Implant Lecture and Laboratory is a continuation of the Pre-Clinical Implant Laboratory and Lecture courses. This series of lectures and pre-doctoral clinical laboratory simulation procedures prepares students for the clinical practice in Implant prosthodontics. The course will continue the application and mastery clinical, and laboratory competencies in overdenture implant dentistry

Credits: 0

CLDE-368: Clinical Restorative (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. Our goal is to enable the student to demonstrate excellence in comprehensive patient care, to render the highest level of clinical restorative therapy to all patients, and to constantly upgrade procedures and treatment to keep abreast with modern procedures of therapy in Restorative Dentistry. For all clinical work to be approved, it must meet a quality standard determined by the department to be functional, properly contoured, promote health of the periodontium, be esthetically acceptable, and show promise of a reasonable length of service. Emphasis will be placed on the quality of service being rendered by the student. This department is responsible for the clinical disciplines of Fixed Prosthodontics and Operative Dentistry

Credits: 0

CLDE-369: Clinical Periodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This rotation serves to familiarize the student with the Periodontal clinical examination, diagnosis, and treatment planning format. The third student will have an introduction to the clinic floor in the Fall semester. This introduction will acclimate the students to the staff that will be assisting them with supplies and sterilization of the instruments on the clinic floor. The senior students will treat patients in the Summer, Fall and Spring Semester. The third and fourth-year competency goals are described in their respective clinical competency outlines.

Credits: 0

CLDE-370: Clinical Endodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. The department expects that each student completing the didactic and clinical training in Endodontics will meet the established goals as described in the clinical syllabus.
Credits: 0

CLDE-371: Clinical Prosthodontics (D3)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. D-3 and D-4 students will be paired by the department. D-3 students will be required to observe each appointment with the D-4 student during the fabrication of a complete denture. The D-3 student must document each appointment on the appointed blackboard site (more information to come) and submit reflections on the appointment that they observed.
Credits: 0

CLDE-446: Clinical Rotation (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This course is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.
Credits: 4

CLDE-460: Clinical Restorative (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. Department of Restorative Dentistry clinical rotation serves to provide maximum and efficient instruction in all phases of restorative dentistry. Our goal is to enable the student to demonstrate excellence in comprehensive patient care, to render the highest level of clinical restorative therapy to all patients, and to constantly upgrade procedures and treatment to keep abreast with modern procedures of therapy in Restorative Dentistry. For all clinical work to be approved, it must meet a quality standard determined by the department to be functional, properly contoured, promote health of the periodontium, be esthetically acceptable, and show promise of a reasonable length of service. Emphasis will be placed on the quality of service being rendered by the student. This department is responsible for the clinical disciplines of Fixed Prosthodontics and Operative Dentistry.
Credits: 2

CLDE-461: Clinical Prosthodontics (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. D-3 and D-4 students will be paired by the department. D-3 students will be required to observe each appointment with the D-4 student during the fabrication of a complete denture. The D-3 student must document each appointment on the appointed blackboard site (more information to come) and submit reflections on the appointment that they observed.
Credits: 2

CLDE-462: Clinical Periodontics (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This rotation serves to familiarize the student with the Periodontal clinical examination, diagnosis and treatment planning format. The third student will have an introduction to the clinic floor in the Fall semester. This introduction will acclimate the students to the staff that will be assisting them with supplies and sterilization of the instruments on the clinic floor. The senior students will treat patients in the Summer, Fall and Spring Semester. The third and fourth year competency goals are described in their respective clinical competency outlines.
Credits: 2

CLDE-463: Clinical Endodontics (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. The department expects that each student completing the didactic and clinical training in Endodontics will meet the established goals as described in the clinical syllabus.
Credits: 2

CLDE-464: CDCA Review

This course is designed to help prepare the D-4 Dental Student to take the (ADEX) American Dental Examination administered by The Commission on Dental Competency Assessments. After reading the complete manual provided by CDCA Faculty members that participate in the administration of the examination will present lectures based on the stated criteria for successfully passing the examination. The information given will also be based on their personal experiences and observations of candidates during the examination. Each session will have time available for questions related to the manual.
Credits: 0

CLDE-475: Clinical Rotation (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This course is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.
Credits: 0

CLDE-477: Clinical Restorative (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. Department of Restorative Dentistry clinical rotation serves to provide maximum and efficient instruction in all phases of restorative dentistry. Our goal is to enable the student to demonstrate excellence in comprehensive patient care, to render the highest level of clinical restorative therapy to all patients, and to constantly upgrade procedures and treatment to keep abreast with modern procedures of therapy in Restorative Dentistry. For all clinical work to be approved, it must meet a quality standard determined by the department to be functional, properly contoured, promote health of the periodontium, be esthetically acceptable, and show promise of a reasonable length of service. Emphasis will be placed on the quality of service being rendered by the student. This department is responsible for the clinical disciplines of Fixed Prosthodontics and Operative Dentistry.
Credits: 0

CLDE-478: Clinical Periodontics (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. This rotation serves to familiarize the student with the Periodontal clinical examination, diagnosis and treatment planning format. The third student will have an introduction to the clinic floor in the Fall semester. This introduction will acclimate the students to the staff that will be assisting them with supplies and sterilization of the instruments on the clinic floor. The senior students will treat patients in the Summer, Fall and Spring Semester. The third and fourth year competency goals are described in their respective clinical competency outlines.
Credits: 0

CLDE-479: Clinical Endodontics (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. The department expects that each student completing the didactic and clinical training in Endodontics will meet the established goals as described in the clinical syllabus.
Credits: 0

CLDE-480: Clinical Prosthodontics (D4)

This course is a three-semester course given over the Summer, Fall, and Spring semesters, with the final grade being calculated and credit submitted in the Spring. D-3 and D-4 students will be paired by the department. D-3 students will be required to observe each appointment with the D-4 student during the fabrication of a complete denture. The D-3 student must document each appointment on the appointed blackboard site (more information to come) and submit reflections on the appointment that they observed.
Credits: 0

Comm Science and Disorders

COSD-262: Speech & Hearing Science

Treats acoustic phonetics and the relation of acoustics to articulatory description of sounds; also introduction to psychophysics.
Credits: 3

COSD-362: Intro to Fluency & Voice

Introduction of disorders of voice and stuttering with an overview of diagnosis and therapeutic management.
Credits: 3

COSD-468: Aural Rehabilitation

Analyzes the impact of hearing loss on communication and its effect on speech perception training.
Credits: 3

Prerequisites:

COSD 361 and COSD 367.

COSD-469: Teaching Methods

Presents clinical methodologies of speech and language problems with emphasis on public schools.
Credits: 3

COSD-531: Clinical Practicum I

Supervised participation in therapeutic and diagnostic methodology.
Credits: 3

Prerequisites:

COSD 465.

COSD-532: Clinical Practicum II

Supervised participation in therapeutic and diagnostic methodology.
Credits: 3

Prerequisites:

COSD 465.

COSD-533: Clinical Practicum III

Supervised participation in therapeutic and diagnostic methodology.
Credits: 4

Prerequisites:

COSD 465.

COSD-534: Clinical Practicum IV

Supervised participation in therapeutic and diagnostic methodology.
Credits: 3
Prerequisites:
COSD 465.

COSD-535: Clinical Practicum V

Supervised participation in therapeutic and diagnostic methodology.
Credits: 3

Prerequisites:

COSD 465.

COSD-559: School Age Language Disorders

Traces the theory, assessment and management of language disorders in school aged children
Credits: 3

COSD-560: Early Intervention

Examines the nature, assessment, and management of language disorders from infancy through preschool.
Credits: 2

COSD-561: Neurogenic Language Disorders

Examination of the structures and functions of the nervous system, including the normal and abnormal processes.
Credits: 3

COSD-563: Phonological Disturbances

Includes the theory, assessment, and management of articulation/and phonological disorders.
Credits: 3

Prerequisites:

COSD 362.

COSD-564: Introduction to Augmentative and Alternative Communication (AAC)

Basic theory and use of technology of alternative communication systems for non-speaking populations.
Credits: 2

COSD-566: Language & Literacy

Theoretical issues and research in language and literacy acquisition and impact on reading disabilities.
Credits: 2

COSD-567: Neurogenic Speech Disorders

Analysis of speech and language problems resulting from neuropathology, with emphasis on examination and management.
Credits: 3

Prerequisites:

COSD 263 and COSD 561.

COSD-570: Dysphagia

General overview of the assessment and treatment of swallowing disorders with procedures for diagnosis and treatment in adults and children.
Credits: 2

COSD-571: Voice Disorders

Analysis of the theoretical framework undergirding normal and pathological vocal behavior, with emphasis on

examination and management.
Credits: 2

COSD-573: Stuttering

Includes the theories, assessment, and management of stuttering and related disorders.
Credits: 3

COSD-577: Differential Diagnosis

Theoretical and practical application of diagnostic procedures for assessment of communication disorders.
Credits: 3

Prerequisites:

COSD 467.

COSD-586: Private Practice & Admin

Administration of the private practice in audiology and speech pathology.
Credits: 3

COSD-594: Research II

Preparation of a written paper utilizing journalistic style.
Credits: 3

Prerequisites:

COSD 591.

COSD-608: Applied Sociolinguistics

Application of sociolinguistic data and theory to the resolution of practical problems and issues.
Credits: 3

COSD-611: Praxis Review

Provides the necessary skills and attitudes needed for successful performance on the Praxis certification examination.
Credits: 1

COSD-691: Research I

Introduction to research methodologies regarding communication problems.
Credits: 3

COSD-701: Experimental Research

Involves basic research methods and procedures and critical analysis of selected research documents.
Credits: 3

Prerequisites:

COSD 590.

COSD-702: Research Design

Presents basic research designs in communications, including statistical and computer procedures for analyzing data.
Credits: 3

Prerequisites:

COSD 701.

COSD-703: Advanced Seminar in Research

Examines experimental research paradigms currently used in Speech Pathology and Audiology.
Credits: 3

COSD-708: Topical Seminar in Child Language

Review and analysis of issues and research on language acquisition in children.
Credits: 3

Prerequisites:

HUCO 609 or equivalent.

COSD-709: Contemporary Issues & Policies

Examines new legislation and policies, the expanding scope of the field, as well as changing practices and new innovations in service delivery.
Credits: 3

COSD-710: Topical Sem in Lang Disabilities

Analysis of contemporary data and theories relative to etiology, examination, and management of learning disabilities.
Credits: 3

COSD-718: Grant Writing

Prepares students to submit research and training grants to federal government and other funding agencies.
Credits: 1

COSD-723: Topical Readings in Comm Disorders Scientific Writing

Issues and research on cultural/linguistic variation with emphasis on identifying and treating communication disorders.
Credits: 1

COSD-756: Neuro & Cognitive Foundations

Examination of the neurological bases of communication, with special reference to auditory, proprioceptive, symbolic, and cognitive functions.
Credits: 3

COSD-781: Social and Professional Ethics

Provides the moral reasoning and foundation for ethical behavior in personal and professional practice.
Credits: 1

COSD-783: Dissertation Writing

Supervised execution of the doctoral dissertation.
Credits: 1

Prerequisites:

Successful completion of doctoral qualifying examination and admission to candidacy.

COSD-794: Research Practicum

Activities related to active research under supervision by a faculty member. Two 1-credit courses are required for the doctoral qualifying examination.
Credits: 1

COSD-795: Research Practicum

Continuation of COSD-794. Activities related to active research under supervision by a faculty member. Two 1-credit courses are required for the doctoral qualifying examination.
Credits: 1

COSD-796: Dissertation

Supervised execution of the doctoral dissertation, taken only as needed.
Credits: 12

Prerequisites:

COSD 795, COSD 796, COSD 797, and COSD 798. Please see the note on p. 577 for additional information.

Commuications (EMBA)

XCOM-500: Strategic Communications

This course focuses on the relationship between communication, management, and the traditional functions of business report writing. It examines the theoretical and practical business aspects of oral and written communication. Management communication incorporates integrative applications of written communication and oral presentation skills, report-research design, data collection and analysis, and computer technology.
Credits: 3

Communication Culture And Media Studies

CCMS-700: Pro Seminar in Communication Theory and Research

Descriptive and critical overview of the field of communication. Orients doctoral students to the nature, resources, challenges, expectations and procedural aspects of graduate study. Opportunity to frame higher education experience to project success.
Credits: 3

CCMS-701: Quantitative Research Methodology

Quantitative research methods and design in communication. Includes the use of statistics in experiments, surveys, and content analysis. Relationship between theory and research will be examined. Assumes knowledge of intermediate statistics.
Credits: 3

CCMS-702: Qualitative Research Methodology

Qualitative research methods and design in communication. Includes the treatment of historical-critical, interpretive, ethnographic, and textual data. Relationship between theory and research will be examined.
Credits: 3

CCMS-703: Critical Studies Research Methodology

Develops skills in conducting inquiry using social critique, political economy and other procedures associated with the critical research tradition, which has the goal of enabling social change.
Credits: 3

CCMS-705: African-American Issues in Communication

Examines historical and contemporary issues, relating to mass communication studies.
Credits: 3

CCMS-706: Field Research in Communication

Develops skill in researching, analyzing and solving a current issue/problem in communication research related to the student's dissertation. May involve fieldwork in the communications industry.
Credits: 3

CCMS-707: Seminar in Gender Issues in Media Management and Ownership

Covers gender concerns in media organizations, the ways these emerged in response to social movements, changes in discrimination laws and practices, theories of gender in organizational leadership.
Credits: 3

CCMS-708: Race, Culture and Social Justice

This course examines the complex inter-relationships among race, culture and the society within America's political and social context. Students will build the critical analytical skills to pursue inquiry within the course's

framework.
Credits: 3

CCMS-709: Community and Public Health

An interdisciplinary course addressing the role of communication in population-based approaches to community health improvement. Features problem-based learning.
Credits: 3

CCMS-710 (advanced): Communication Theory

Review and critical analysis of major theories and theoretical perspectives in communication. Metatheoretical issues will be examined.
Credits: 3

CCMS-712: Seminar in Social Media, Culture and Communication

Explores the history, practices, tools, legal and ethical issues related to social media. Emphasis on students' exploration of theories - public relations, communication and business - to help better understand and develop social media.
Credits: 3

CCMS-713: Critical Discourse Analysis

Critical review and analysis of language and discourse dynamics as factors in power and the abuse of power.
Credits: 3

CCMS-714: Communication & the Black Diaspora

This course takes a historical approach to studying how various communities of the African Diaspora communicate and define identity, culture and social position. Communication will include language, music, the arts, mediated communication, and other cultural forms. Attention will be paid to gender, nationality, sexuality and social class as they construct and are constructed around the world.
Credits: 3

CCMS-716: Advanced Quantitative Design

class provides hands-on experience organizing and planning studies that involve statistical methods, particularly those with large data sets. Covers content analysis as well as research involving survey research and other field work.
Credits: 3

CCMS-718: Health Communication & Culture

Focus on the social, economic, and political factors influencing African, Latino, Asian, and Native Americans' beliefs and attitudes related to health and illness.
Credits: 3

CCMS-719: Advanced Qualitative Communication Design and Analysis
Advanced qualitative-interpretive design and analysis for communication research.
Credits: 3

Prerequisites:

CCMS 702 or permission of instructor.

CCMS-722: Political Communication & Public Opinion

Emphasis on persuasive and propaganda devices used in political power and office seeking as well as the formulation and management of public policy.
Credits: 3

CCMS-724: Communication Leadership & Diversity

Examines communication leadership scholarship within a context of diversity that includes culture, gender,

race, ethnic, as well as additional diversity indices.
Credits: 3

CCMS-725: Historical Methods in Communication

This hands-on methods class covers ways of approaching communication studies, beginning with identifying historical problems in communication, locating documents, records and texts through archival and other research; authenticating sources, determining the originality, author(s), and learning the genealogy of a document; interpreting documents' meanings; and other issues.
Credits: 3

CCMS-726: Intercultural Communication

Considers rules, meaning, uncertainty reduction, development communication, and comparative approaches to intercultural communication. Examines methodological issues.
Credits: 3

CCMS-727: Technology in Health Communication

The seminar examines the uses of technology in health communication with an emphasis on technology in both patient-provider relationships and health campaigns. This course provides an overview of theory and research related to the role of new media in promoting advances in public health.
Credits: 3

CCMS-728: Health Communication in the African American Community

Health Communication in the African American Community. 3crs.This course examines health and the role of health communication in the African American community. Focus will be on theories and strategies in the prevention and elimination of health disparities.
Credits: 3

CCMS-730 (advanced): Health Communication

Focuses on the social, economic and political factors influencing African, Latino, Asian, and Native Americans' beliefs and attitudes related to health and illness. Explores how topics such as folk illness, "personalismo", face maintenance, home remedies and alternative medicine are related to health communication.
Credits: 3

CCMS-731: Inequality in the Information Society

The seminar examines information inequality in contemporary global societies in relation to advances in technology, and to concerns about race, gender, sexuality, social class, and multiculturalism. The class considers history, theories and practices related to various facets of inequalities, with a critical eye on the roles of media and technologies, and with questions about whether and how governments exacerbate or remediate information inequality.
Credits: 3

CCMS-740: Global Health Communication

Interdisciplinary seminar emphasizes transnational health communication issues, determinants, and solutions. Includes individual-level health care communication as well as societal and global level.
Credits: 3

CCMS-750: Theory & Research Foundations

Explores major scholars whose work defined the field.
Credits: 3

CCMS-752: Mass Communication Effects

Studies the significance and impact of mass communication in contemporary society; critical review of the models and paradigms of media influence and influence processes.
Credits: 3

CCMS-753: Mass Communication Policy & Administration

Explores governmental, legal, regulatory and administrative policies, rules and procedures as they pertain to mass communication and public policy-making.
Credits: 3

CCMS-755: Communication & Popular Culture

Studies mass media as popular cultural institutions. Emphasis on communication as a system of public language or symbols, its relationship to the information society and to changes in folk and elite culture genres.
Credits: 3

CCMS-757: International Communication

Reviews international interactions, information flows, and perceptions. Emphasis on the role of media and factors affecting that role.
Credits: 3

CCMS-759: Internet & Society

Places new communication technology into historical, cultural, and theoretical perspective. Intended primarily to study the "people" side of electronic communication in general and the Internet in particular.
Credits: 3

CCMS-770: Dissertation Proposal Writing

The purpose of this course is for the design and performance of research leading to a Ph.D. A Maximum of 9 credits for this course may be counted toward the 72 needed for program completion See note on page 577 related to research and dissertation hours.
Credits: 3

CCMS-771: Dissertation Proposal Writing

The purpose of this course is for the design and performance of research leading to a Ph.D. A Maximum of 9 credits for this course may be counted toward the 72 needed for program completion
Credits: 3

CCMS-772: Dissertation Proposal Writing

The purpose of this course is for the design and performance of research leading to a Ph.D. A Maximum of 9 credits for this course may be counted toward the 72 needed for program completion
Credits: 3

CCMS-773: Gender & Media

Explores gender and communication issues through a range of feminist and cultural perspectives in U.S. and global contexts. Considers how the academic study of gender relates to real-life situations going on in the nation and world.
Credits: 3

CCMS-787: Topical Seminar

Comprehensive study of the literature on selected topics of contemporary interest and importance in communication studies. See note on page 577 related to Special Topics courses.
Credits: 3

CCMS-790: Independent Study

Requires faculty sponsor, written plan and a specific project with a work product at the end.
Credits: 3

Prerequisites:

Approval of study outline by faculty sponsor and department chair.

CCMS-791: Independent Study

Requires faculty sponsor, written plan and a specific project with a work product at the end.
Credits: 3

Prerequisites:

Approval of study outline by faculty sponsor and department chair.

CCMS-792: Independent Study

Requires faculty sponsor, written plan and a specific project with a work product at the end.
Credits: 3

Prerequisites:

Approval of study outline by faculty sponsor and department chair.

CCMS-795: Dissertation

Supervised execution of the doctoral dissertation. A maximum of 12 dissertation credits may be counted toward the 72 required for program completion
Credits: 3

Prerequisites:

Successful completion of doctoral qualifying examination and admission to candidacy. See note on page 577 related to research and dissertation hours.

CCMS-796: Dissertation

Supervised execution of the doctoral dissertation. A maximum of 12 dissertation credits may be counted toward the 72 required for program completion
Credits: 3

Prerequisites:

Successful completion of doctoral qualifying examination and admission to candidacy. See note on page 577 related to research and dissertation hours.

CCMS-797: Dissertation

Supervised execution of the doctoral dissertation. A maximum of 12 dissertation credits may be counted toward the 72 required for program completion
Credits: 3

Prerequisites:

Successful completion of doctoral qualifying examination and admission to candidacy. See note on page 577 related to research and dissertation hours.

CCMS-798: Dissertation

Supervised execution of the doctoral dissertation. A maximum of 12 dissertation c redits may be counted toward the 72 required for program completion
Credits: 3

Prerequisites:

Successful completion of doctoral qualifying examination and admission to candidacy. See note on page 577 related to research and dissertation hours.

CCMS-799: Dissertation

Supervised execution of the doctoral dissertation. A maximum of 12 dissertation credits may be counted toward the 72 required for program completion

Credits: 1

Prerequisites:

Successful completion of doctoral qualifying examination and admission to candidacy. See note on page 577 related to research and dissertation hours.

CCMS 717: Seminar in Media Psychology

Provides an overview of major research on media psychology and explores current debates about the psychological significance of media. Both traditional and new media genres are covered with respect to the ways that media shape cognitive processing, engagement, and behavior. Some attention will also be given to media and the shaping of social reality.
Credits: 3

COSD-467: Test and Measurements

Introduces the basics of psychometric aspects of standardized testing and methods of collecting parametric and nonparametric data to measure aspects of speech, language, swallowing, and cognitive communication for diagnostic purposes in the profession of speech language pathology.
Credits: 3

Community Dentistry

CODE-313: Public Health

Public Health Dentistry will provide a framework to train third year dental students on the basic concepts of dental public health and to better prepare students to meet the oral health needs of the US population as dental providers. This course aims to increase the public health knowledge and competencies of students through the eight dental public health competency areas outlined by the American Association of Public Health Dentistry (AAPHD).
Credits: 3

CODE-315: Health Care Ethics

This course is available for credit in the Spring and Fall semesters for the third-year dental student. The class is split into 2 sections, with one half taking the course in each semester. The interdisciplinary Health Care Ethics course introduces students to ethical and bioethical issues confronting healthcare providers in the context of health care delivery and research. Through a series of interdisciplinary lectures, the course introduces students to theories and principles of bioethics and familiarizes them with the moral foundations of patient-provider relationships, professionalism, relevant ethical and legal considerations, and the concepts of moral reasoning. The course enables students to develop the critical thinking skills necessary to identify and analyze ethical dilemmas and to construct well-reasoned responses to the dilemmas. By utilizing the Bebeau Grid method to collect and analyze case information, students will refine their critical thinking skills through reading, writing, discussing, and resolving the case material presented in the small group class sessions. Emphasis on collaborative dialogue between and among student participants in the various health disciplines represents the hallmark of this course.
Credits: 2

Computer Science

CSCI-460: Wireless Communications

The purpose of the course is to provide a comprehensive and up-to-date review of wireless communication for engineering professionals, instructors and students. The course covers wireless transmission and reception principles, electromagnetic propagation, antenna characteristics, and wireless network access methods.
Credits: 3

CSCI-487: Telecommunications

In this course, students learn about radio frequencies, antenna function, satellite applications, cellular transmissions, wireless local area networks and design.

Credits: 3

CSCI-500: Socially Relevant Computing

This course emphasizes the use of computation for solving problems of personal and societal interest to students. Courses in this new framework help students identify and model tasks, and design and implement computational solutions that show deep understanding of their embedding in the world.
Credits: 2

CSCI-510: Computer Architecture

his course aims to build on a prior knowledge of computer organization by exploring more advanced concepts related to the design of computer systems and components. Topics include processor design, instruction set design, and addressing; control structures and microprogramming; memory management, caches, and memory hierarchies; and interrupts and I/O structures.
Credits: 3

CSCI-532: Advanced Operations Research

This course will acquaint students with the formulation, solution, and implementation of operations research models for analyzing complex systems in industry or government, also familiarizing students with special techniques of the field such as linear programming and network analysis. Topics include Simplex Method, Duality Theory, and Network Analysis.
Credits: 3

CSCI-540: Object-Oriented Development

This course will provide a fundamental understanding of the object-oriented paradigm, and how it is used in analysis, requirement specification, design, and programming. Emphasis is on object-oriented design. Covers different specification techniques with a focus on the unified modeling language. Object-oriented databases, object-oriented user interfaces and object-oriented business processes, as well as standards in object orientation will be introduced.
Credits: 3

CSCI-548: Data Communications I

Includes data communications media, the ISO network model, network systems elements, local and large-scale networks, and line protocols. Students will monitor performance of local area networks using appropriate hardware and will simulate some of the problems of network noise, excess traffic, performance of bridges and gateways, etc. in software. Requires the completion of a group or individual project involving the design, development and demonstration of a communication system and its protocols.
Credits: 3

CSCI-549: Data Communications II

This course is a continuation of Data Communications I. It introduces further networking topics by discussing wireless networking, and the components of network management - fault management, performance, configuration, security and accounting.
Credits: 3

CSCI-550: Network Modeling and Analysis

This course presents various topics related to the design, modeling, and analysis of telecommunication networks, including queuing models, loss systems, overflow systems, simulations, and routing strategies. Emphasis will be placed on exact and approximate methods for measuring the performance of such networks. Upon completion of this course, students will be able to apply modeling techniques to telecommunication networks, based on specific characteristics, and measure the performance of each using both exact and approximate methods.
Credits: 3

CSCI-551: Advanced Software Engineering I

This course aims to develop the broad understanding of the discipline of software engineering (gained in the earlier Software Engineering course) by considering the wider systems engineering context in which software plays a role. It aims to examine the concepts and techniques associated with a number of advanced and industrially relevant topics, relating to both the product and processes of software engineering.
Credits: 3

CSCI-552: Advanced Software Engineering II

This course is a continuation of the course CSCI-551 (Software Engineering I). The emphasis of the course is on software engineering. Topics covered include verification, metrics, software fault tolerance, maintainability and reliability. Extensive use of the formal properties of algorithms is made.
Credits: 3

Prerequisites:

CSCI-551 (Software Engineering I).

CSCI-560: Performance Modeling

This course teaches various aspects of computer-aided modelling for performance evaluation of (stochastic) dynamic systems. The emphasis is on stochastic modelling of computer systems and communication networks; however other dynamic systems such as manufacturing systems will also be considered.
Credits: 3

CSCI-570: Advanced Algorithms

This is a theoretical and advanced course in algorithms; it will present useful techniques for solving challenging programming problems, using efficient algorithms and data structures. It will also provide advanced techniques in the analysis of algorithms and the fine-tuning of algorithms to particular systems to improve performance.
Credits: 3

CSCI-572: Computability and Complexity

This course explores the relationship between problems, algorithms, and languages. Computability: finite automata, rewriting systems, Turing machines (linear speedup, robustness, and the Universal Turing machine). It presents recursive and recursively enumerable languages, the Church-Turing thesis, and complexity classes defined in terms of time, space, and circuits.
Credits: 3

CSCI-574: Computational Biology

Introduces computational methods for understanding biological systems at the molecular level. Problem areas such as mapping and sequencing, sequence analysis, structure prediction, phylogenic inference, regulatory analysis. Techniques such as dynamic programming, Markov models, expectation-maximization, local search.
Credits: 3

CSCI-599: MS Project

This is the terminal work for the non-thesis option of the master's degree program. It affords the opportunity to conduct applied research, design, implement, setup and configure a realistic enterprise computing application and its environment. Candidates who select the Master's Project must choose a major professor to direct their project. The advisor and the student may identify other resource persons to serve in an advisory capacity for the project. Before beginning the project, student must present a project concept proposal to the major professor. The Director of Graduate Studies must approve this project. Student will write a project report and present the study at an announced open forum similar to the thesis defense. This report will not be on file in the Howard University library.
Credits: 3

CSCI-600: Research Methods

The course introduces the language of research, ethical principles and challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches.
Credits: 1

CSCI-632: Advanced Database Systems

This course presents advanced database system design and implementation. It will start with the basic relational databases and then cover advanced topics in modern database systems, including object-oriented databases, XML databases, distributed databases, and on-line analytical processing. It will also present various data description and query languages, database design, and query processing and optimization, and also look at distributed object model, and data mining and data warehouses.
Credits: 3

CSCI-634: Advanced Modeling and Simulation

This course will provide students with the ability to model, simulate and analyze complex systems in a reasonable time. This course is divided into three parts and covers advanced techniques in simulation model design, model execution and model analysis. A selection of model design techniques such as conceptual models, declarative models, functional models, constraint models, and multi-models will be introduced.
Credits: 3

CSCI-652: Special Topics in Cybersecurity

Courses on specialized or emerging cybersecurity topics offered on a timely or as-needed basis. This course can be repeated for credit. The description of the actual topic I list in the "note section" in the Schedule of Classes. See page 577 for additional information related to Special Topics courses.
Credits: 3

CSCI-653: Cybersecurity I

This course will provide an intensive overview of the field of cryptography, providing a historical perspective on early systems, building to the number theoretic foundations of modern day cryptosystems. Students will study how cryptosystems are designed, to match cryptosystems to the needs of an application, and basic cryptanalysis. Real life breaches of common cryptosystems will be presented to better convey the dangers that lurk in cryptosystem design and in the design of systems that rely on cryptography.
Credits: 3

CSCI-654: Cybersecurity II

This course is a continuation of Computer Security I. It will present security policies, models, and mechanisms for secrecy, integrity, and availability. Topics include operating system models and mechanisms for mandatory and discretionary controls; data models, concepts, and mechanisms for database security; basic cryptography and its applications; security in computer networks and distributed systems; and control and prevention of viruses and other rogue programs.
Credits: 3

CSCI-659: Capstone in Security

This course is the terminal project for the Information Security Certificate program. It requires the design, implementation, setup and configuration of realistic enterprise computing applications and environments. Securing the infrastructure and integration of different services and technology in efficient, secured and redundant manners, and utilizing opensource and commercial security products.
Credits: 3

CSCI-660: Artificial Intelligence

This course presents an overview of artificial intelligence and a survey of the major areas of the field. Course objectives are to study the various knowledge representation methods and techniques in solving AI problems in the literature, gain a level of proficiency in LISP that will enable the student to program an AI problem; design a solution to an AI problem using LISP or a specialized AI language.
Credits: 3

CSCI-672: Intro to Machine Learning

Techniques for learning from data and applying these algorithms to application settings. Topics covered include Bayesian methods, linear classifiers such as the perceptron, regression, and nonparametric methods such as k-nearest neighbors.
Credits: 3

CSCI-673: Knowledge Engineering and Management

Knowledge Engineering is the process of building and maintaining Knowledge structures, particularly intelligent problem-solving systems. Knowledge management is concerned with collecting and making accessible the knowledge structures most relevant to a particular set of stakeholders. This course covers selected methods from different areas of Knowledge Engineering and knowledge management. Topics include knowledge representation and reasoning, knowledge acquisition, knowledge synthesis and knowledge evolution.
Credits: 3

CSCI-674: Advanced Systems Management and Analysis

The general aim of this course is to examine the design and application of systems in business for routine data processing, management reporting, and decision support at various levels within the organization. The main focus of the course will be on the non-programming components of the systems development process.
Credits: 3

CSCI-680: Advanced Operating Systems

This course presents an exciting range of materials from the broad field of operating systems, including basic operating system structure, file systems and storage servers, memory management techniques, process scheduling and resource management, threads, distributed systems, security and a few other advanced topics. It will also examine influential historical systems, important current efforts, extracting lessons both on how to build systems as well as how to evaluate them.
Credits: 3

CSCI-682: Parallel Computing

This course aims at exploring several alternative programming models and contrasting their suitability for different architectures and applications. The material covered will encompass topics in parallel computer architectures, parallel programming models, and languages. Appropriate examples for existing or proposed parallel architectures will be surveyed. Alongside, students will have the opportunity to gain hands-on experience with MPI and PVM.
Credits: 3

CSCI-683: Special Topics in Software Engineering

The course consists of a series of lectures and/or practical work in an area of advanced software engineering of contemporary interest. See page 577 for additional information related to Special Topics courses.
Credits: 3

CSCI-685: Special Topics in Artificial Intelligence

This course will present special research projects in Artificial Intelligence for students who wish to independently pursue reading and study in a topic mutually agreed upon by a member of the faculty and the student.
Credits: 3

Prerequisites:

permission of the director of the Computer Science program. See page 577 for additional information related to Special Topics courses.

CSCI-686: Special Topics in Data Communications

his course will present special research projects in Data Communications for students who wish to independently pursue reading and study in a topic mutually agreed upon by a member of the faculty and the student.
Credits: 3

Prerequisites:

permission of the director of the Computer Science program. See page 577 for additional information related to Special Topics courses.

CSCI-687: Special Topics in Computing Systems

This course will present special research projects for students who wish to independently pursue reading and study in a topic mutually agreed upon by a member of the faculty and the student.
Credits: 3

Prerequisites:

permission of the director of the Computer Science program. See page 577 for additional information related to Special Topics courses.

CSCI-688: Special Topics in Computational Systems

This course will focus on fundamental theory and algorithms for working with Big Data and networks. Topics covered will include graph embedding, spanning trees, network flow, random graph models, network formation and evolution, structure and attribute-based search, clustering, partitioning, and distributed dynamical systems. See page 577 for additional information related to Special Topics courses.
Credits: 3

CSCI-699: Thesis

The thesis option provides the student the opportunity to conduct original research and to report this in a scholarly manuscript. This option is especially well suited to a student who plans on pursuing a PhD degree. Students who select this option must choose a major professor to act as the chair of their thesis committee and two additional committee members. Before beginning work on a thesis, a student must present a proposal to their committee for approval. The committee will direct and supervise the work carried out by the student. The student is bound by the Graduate School rules and regulations for thesis defense.
Credits: 3

CSCI-783: Advanced Topics in Software Engineering

Seminar on current research and developments in software engineering. Students develop a software package with the aid of available software tools such as requirement tool, design tool, code generators, testing tools, measurement tools, cost estimation tools.
Credits: 3

CSCI-785: Advanced Topics in Artificial Intelligence

This course will cover selected topics from: advanced pattern recognition, neural networks, expert systems and fuzzy systems, evolutionary computing, learning theory, constraint processing, logic programming, probabilistic reasoning, computer vision, speech processing, and natural language processing.

Credits: 3

CSCI-786: Advanced Topics in Computer Networks

The goal of this course is to expose students to recent advances in wired and wireless networks, with focus on the architectural and protocol aspects underlying the design and operation of such networks ..... They will also use simulations to evaluate the performance of various design concepts.
Credits: 3

CSCI-787: Advanced Topics in Computing Systems

It provides a PhD-level study of groundbreaking and influential research across the spectrum of operating systems, parallel and distributed systems, networked systems, storage systems, and security across the tiers from global scale, cloud, institutional, personal, mobile, and embedded.
Credits: 3

CSCI-788: Advanced Topics in Computational Systems

Continued graduate survey of large-scale systems for managing information and computation. Topics include basic performance measurement; extensibility, with attention to protection, security, and management of abstract data types; index structures, including support for concurrency and recovery; parallelism, including parallel architectures, query processing and scheduling; distributed data management, including distributed and mobile file systems and databases; distributed caching; large-scale data analysis and search. Homework assignments, exam, and term paper or project required.
Credits: 3

CSCI-799: Dissertation

The dissertation option provides the student the opportunity to conduct original research and to report this in a scholarly manuscript. Students must choose a major professor to act as the chair of their dissertation committee and two additional committee members. Before beginning work on a dissertation, a student must present a proposal to their committee for approval. The committee will direct and supervise the work carried out by the student. The student is bound by the Graduate School rules and regulations for dissertation defense. See note on page 577 related to dissertation hours.
Credits: 12

CUGW CE-6505: Environmental Impact Assessment

This course introduces the methodology of environmental impact assessment (EIA) as a vital tool for sound environmental management and decision-making. The course provides an overview of the concepts, methods, issues and various forms and stages of the EIA process.
Credits: 3

CUGW CE-6509: Introduction to Hazardous Waste

This course covers practical, hands-on guidance on hazardous waste management practices and compliance.
Credits: 3

CUGW CE-6601: Open Channel Flow

A rigorous mathematical study of one-dimensional flow in open channels, including uniform, gradually varied, rapidly varied, tidal, and flood flows. Analytical and finite difference solutions to the governing conservation equations developed with aid of the computer, and stable channel design addressed.
Credits: 3

Curriculum & Instruction

EDUC-210: Foundations & Urban Education

The purpose of the course is to analyze and study the philosophical and historical foundations that underline leadership concepts and practices in contemporary urban schools. Students explore the political, social, and economic context in which urban schools operate. Students also examine effective leadership and management strategies for urban schools in eight key policy/management areas: finance, personnel/employee relations, students' performance, program definition (curriculum and student services), facilities and security, media (communications and community relations), and education law
Credits: 3

EDUC-216: Instructional and Assistive Technology

Provides an understanding of assistive technology and application in instructional programs, career tasks, and life skills for individuals with disabilities. Presentation and exploration experiences enable students to better use assistive technology in education, work, community, and home environments.
Credits: 3

EDUC-222: Engaging Families, Communities, and School Personnel

The purpose of this course is to examine issues related to family engagement within the context of classroom, school and community settings. The service-learning requirement will assist students in advancing their awareness of family involvement frameworks and strategies for effective partnership development and facilitation involving families, schools and communities. Students will engage in research that will assist them in developing engaged relationships with youth and families while learning how to facilitate partnerships with critical inquiry, reflection, and reciprocity.
Credits: 3

EDUC-260: Introduction to Special Education

This course provides an introduction to the terminology, identification, and issues commonly encountered when addressing the needs of diverse students with disabilities.
Credits: 3

EDUC-312: Teacher-made Classroom Assessments / Assessment & Measurement

This course is aligned with the School of Education's conceptual framework to develop reflective educators, competent researchers, educational leaders, and change agents to serve in urban educational and human service environments. This course is designed to provide future educators with the theoretical bases necessary to obtain the goals of effective teaching and learning. This course will examine many questions and answers involving education in today's urban society. This course will incorporate not only vital facts but also future teaching suggestions that initiate change in our society.
Credits: 3

EDUC-435: Human Resources Management

This course examines the policies and practices used by human resource management staff to build and maintain an effective work force. Topics include human resource planning, job analysis, recruitment, selection, performance appraisal, manpower development, compensation, and labor relations.
Credits: 3

EDUC-500: Foundation of Education and Urban Schooling

Issues confronting K-12 urban schools are bound to the social, economic, and political conditions of the urban environments in which schools reside. This course is designed to enhance students' knowledge of urban schooling through an examination of historical, social, economic, political and socio-cultural frameworks that emphasize how issues of race, class, gender, and immigration status have affected the distribution of equal educational opportunities in urban schools in the U.S. Connected to the historical and cultural analysis of urban schools, this course also examines teaching practices and programs that have demonstrated success with urban students. In this sense students not only have an opportunity to engage with the research literature on inequities in urban schools but also investigate the complexity and challenges of providing excellent education in K-12 urban school contexts.
Credits: 3

EDUC-501: Diversity in American Schools

This course explores the intersections between education, democracy and diversity in American schooling. Students will develop an awareness of race, ethnicity, class, gender and other lines of difference, and explore how schooling might be structured in ways that build equity and justice.
Credits: 3

EDUC-530: Foundations and Processes of Reading / Literacy

This course synchronizes and scaffolds each of the major components of the reading process. It focuses on the psychological, physiological and sociological factors affecting the developmental reading process and identification of the components of reading and familiarization with the trends and issues in reading education. Upon completion of this course, students will understand the principles of scientifically based reading research as the foundation of comprehensive instruction.
Credits: 3

EDUC-532: Literature for Children and Adolescents

In this course you will interpret and evaluate literature written for children and adolescents in various genres, including myths and legends, fantasy, realism, biography, poetry, and picture storybooks.
Credits: 3

EDUC-550: Survey of Exceptional Populations

This course will provide a survey of populations with exceptionalities. Attention will be given to the cause of these deviations and their effect upon the individual's development. Professional roles of the special education team members as well as the policies and regulations applicable to special education programs in general will be covered.
Credits: 3

EDUC-633: Diagnostic and Remedial Techniques in Reading

The course focuses on evidence-based reading interventions for struggling readers and is a required course in the Reading Specialist certificate program. The essential components of effective reading instruction, scientifically-based reading strategies, interventions for students with learning or language needs, and appropriate literacy assessments are addressed.
Credits: 3

EDUC-653: Behavior and Classroom Management

This course presents best practices in classroom and behavior management - from organizing time, materials, and classroom space to strategies for managing individual and large group student behaviors, transitions, lab activities, and other arrangements for classrooms in general and special education.
Credits: 3

EDUC-654: Diagnosis and Evaluation of Exceptional Populations

The course will cover the following: basic concepts, ethical concerns, legal issues, and typical procedures related to the assessment and monitoring of exceptional individuals, appropriate application and interpretation of testing results, appropriate use of widely accepted assessment instruments, strategies that consider the influence of diversity on assessment, eligibility, programming, and placement of students with exceptional learning needs.

Credits: 3

EDUC-671: Educational Psychology

This course introduces the student to the psychological foundations of educational theory, research, and practice. Topics include learning theory, learner characteristics, intelligence, creativity, motivation, measurement and evaluation, and models of teaching for all learners.

Credits: 3

EDUC-672: Teaching Exceptional Children

Focuses on the characteristics, identification, assessment, and instruction of students with exceptionalities. Explores special education children's syndromes and their learning environments. Includes the theories, laws, and procedures surrounding special education.

Credits: 3

EDUC-673: Methods in Curriculum and Teaching

Through the study of the basic principles of curriculum development, educators and curriculum leaders are provided with knowledge, skills, and experiences to be actively involved in multiple facets of curriculum development, including planning, design, developmental processes and approaches, implementation, evaluation, and improvement/change. Development of curriculum will systemically address technology integration, evidenced-based practices, innovative and collaborative learning experiences, and the impact of social, political, psychological, and economic factors.

Credits: 3

EDUC-690: Methods for Teaching

his course is aligned with the School of Education's conceptual framework to develop reflective educators, competent researchers, educational leaders, and change agents to serve in urban educational and human service environments. This course is designed to provide the current educator of exceptional students with knowledge of methodologies, strategies, and techniques useful in providing effective classroom instruction in the context of inclusive environments, while maintaining a focus on other placement options. Students will utilize their personal classroom experience to examine issues of inclusion, collaboration, programming, teaching strategies, classroom management, professional standards and problem solving, and other issues important to the development of students with exceptionalities in order to further advance their development in the mainstream society of America

Credits: 3

EDUC-691: Integrated Methods

This course is designed to help future teachers put instructional theory into practice. It will provide an integrated coverage of methods of classroom instruction, management and assessment. The methodology of the course will include practicum, lesson construction, practice teaching, in class exercises, discussion of readings, and exams. Students should leave feeling well prepared in the art and science of teaching, and be competent in several critical teaching practices.

Credits: 3

EDUC-692: Integrated Methods II

Continuation of EDUC-691. This course is designed to help future teachers put instructional theory into practice. It will provide an integrated coverage of methods of classroom instruction, management and assessment. The methodology of the course will include practicum, lesson construction, practice teaching, in class exercises, discussion of readings, and exams. Students should leave feeling well prepared in the art and science of teaching, and be competent in several critical teaching practices.
Credits: 3

EDUC-695: Teaching Exceptional Children

Focuses on the characteristics, identification, assessment, and instruction of students with exceptionalities. Explores special education children's syndromes and their learning environments. Includes the theories, laws, and procedures surrounding special education.
Credits: 3

EDUC-699: Internship

Intensive field experience in a supervised setting, emphasizing research, clinical practice, or college teaching.
Credits: 3

Dental Hygiene

DHYG-302: Dental Materials Lecture / Laboratory

Dental materials science is the study of materials used in dentistry and medicine to restore or replace any structure(s) within the oral cavity. The course will discuss the chemical composition, mechanical, physical properties and biological characteristics of metals, ceramics, polymers of composites and natural materials. The main goal of this course is to provide the essential information required to assist the dental hygienist with the selection, manipulation, placement and care of those materials used in their specialty. It will also expand their skills and knowledge in a variety of clinical applications of other materials used in general and restorative dentistry.
Credits: 1.5

DHYG-304: Histology and Embryology Lecture /Laboratory

This course has been designed to provide the students with knowledge of the histology and embryological development of oral and para-oral structures. Special emphasis is placed on the growth, development, histology and functions of the enamel, dentin, periodontal ligament, cementum, bone, oral mucous membrane, salivary glands, and Temporomandibular joint.
Credits: 2.5

DHYG-305: Preclinical Dental Hygiene Theory I

This course will provide the student with the basic concepts and theories related to the performance of clinical dental hygiene. The course will provide an introduction to the Howard University College of Dentistry patient care system. Emphasis is placed on didactic knowledge of clinical protocol, patient assessment and treatment interventions. Opportunities will be provided for the student to identify his/her role as a dental hygienist with an emphasis on personal and professional development.
Credits: 2

DHYG-306: Introduction to Periodontics

The intent of this course is to acquaint the first-year dental hygiene student with the fundamentals of Periodontics. Students will explore the basics of anatomy, physiology, neurology, lymphatics and hematology of the periodontium, epidemiology will be discussed. Students will be able to discuss in detail the classification and etiology of periodontal and gingival diseases.

Credits: 2

DHYG-307: General Oral Pathology and Therapeutics

This course is an extension of and is based on the course entitled, "Oral Histology". It is designed to correlate (as applicable) clinical appearance and symptomatic expression of disease with laboratory findings, radiographic appearance and microscopic features. As appropriate, emphasis will be placed on logical methodology and procedures for determining the correct diagnosis. Etiologic factors and therapeutic measures also discussed in this course is designed to provide the student with the currently accepted therapeutic modalities for the management of the medically compromised patients for the more common normal oral and abnormal oral conditions.

Credits: 2

DHYG-309: Preclinical Dental Hygiene Techniques Lecture / Laboratory

This course is designed to introduce the student to the use and care of dental hygiene armamentarium, to enable the student to develop skills and techniques necessary to perform practices and procedures of the dental hygiene appointment. The student will use the experiences to foster the patient care competencies for entry into the profession of dental hygiene. Laboratory sessions will allow for the development of competency in technical and judgmental skills necessary for clinical procedures. Peer patient experience will provide an introduction to the patient care system. Opportunities will be provided for the student to identify his or her role as a dental hygienist with an emphasis on personal and professional development.

Credits: 4

DHYG-310: Radiology Lecture / Laboratory

This course is designed to provide the student with a basic understanding of theories and principles in dental radiography. Lectures, seminars and laboratories will be used to prepare the student on the use of ionizing radiation in dentistry. Also, this course is designed to provide the student with an understanding of theories and principles used in the systematic analysis of dental radiographic images. Lectures and self-instructional resources will be used to expose the student to a variety of diagnostic images representing normal anatomic appearances.

Credits: 1

DHYG-313: Anatomy of Orofacial Lecture / Laboratory

The course covers anatomical structures and their relationships on structures of the head and neck. Students will leave this course not only with knowledge of the structure and relationships among the head and neck, but will also be conversant with anatomical terminology that will be used in other basic science courses and in their clinical practice. Also, this course is designed to provide opportunities for the student to learn the structure, morphology and function of the teeth and their supporting structures. Lectures, labs and identification exercises are incorporated. These will emphasize normal clinical appearance of the teeth and oral tissues as they apply to clinical dental hygiene.

Credits: 3

DHYG-316: Community Dental Health and Statistics I

This Community Dental Health hybrid course is designed to introduce the dental hygiene students to the dental public health delivery system in the United States and abroad, with emphasis on the governmental structures affecting dental hygiene care delivery. The historical development of the profession of dental hygiene, focusing on its inception as the true public health profession, will be presented. The prevention modalities encompassing public health dental hygiene will be discussed, including water fluoridation, dental sealants, fluoride mouth rinse programs, dental screening, dental health promotion and education activities, tobacco cessation programs 3 and other oral health interventions. Emphasis will be placed on the collaboration and partnership with a variety of health care professionals outside of the private dental practice delivery system as the student assesses, plans, implements and evaluates a public oral health program. A sociological approach include issues surrounding race, class, gender, the economy and legislation will also be introduced.

Credits: 3

DHYG-320: Clinical Dental Hygiene I

This course is designed to provide the student with continued experience in and knowledge of clinical dental hygiene. Also, this course is designed to enable the first-year dental hygiene students to evaluate the systemic and oral health of their patients. Clinical experiences will provide the opportunity to employ basic preventive skills, therapeutic care, and professional behavior.
Credits: 3

DHYG-321: Clinical Dental Hygiene Theory I

This course presents a continued didactic approach to studying the fundamentals of dental hygiene. A continuation of infection control protocol and patient assessment will be emphasized. Dental hygiene theory, treatment planning, implementation, and evaluation will be reinforced along with special consideration when treating the medically compromised patient. Upon successful completion of this course, the student will demonstrate minimal competency in all aspects of dental hygiene care.
Credits: 2

DHYG-322: Clinical Dental Hygiene II

This course is designed to provide the student with more continued experience in and knowledge of clinical dental hygiene. This course continues pediatric, adolescent, adult and geriatric treatment with an emphasis on oral care, probing questions, medical consultations and human needs theory deficits and interventions for patients across the lifecourse, including special needs.
Credits: 2

DHYG-342: Pain Control and Therapeutics

This course is designed to enable first year dental hygiene students to perform the procedures presented in the Pain Control course and enhance clinical experiences from Clinical Dental Hygiene II. Students will utilize patient partner clinic experiences and laboratory simulation in the delivery of local anesthesia and nitrous oxide sedation.
Credits: 2

DHYG-406: Dental Health Education Methods (hybrid)

This course is designed to emphasize the role of the dental hygienist in health communication, health promotion and health marketing as oral health educator, advocate and resource person for the community. As a hybrid course, self-directed learning will be fostered with online collaboration, school based health center participation at local DC public schools and full student participation in all aspects of this course for a successful final grade. Upon successful completion of lectures, tests, online assignments, reports and school based health center participation, the student will gain knowledge and experiences that will aid the student in the development and enhancement of interpersonal communication skills. These skills will cultivate an understanding of issues that impact the lives and oral health of consumers of all ages. This course will provide knowledge and experiences in utilizing available resources to reinforce the connection between lifestyle influences, learning behaviors, systemic health and oral health.
Credits: 2

DHYG-414: Clinical Dental Hygiene Practicum

This course is designed to provide the dental hygiene student with clinical experiences in professionally relevant settings. Each student will prepare written reports (journal entries) that will be shared during the semester. Learning opportunities will vary from site to site. Using educational methods skills, the student will develop learning objectives for each selected site with guidance from the facilitator at each site. These learning objectives will support the learning contract. The student will prepare a Learning Contract for each practicum site. A written copy must be submitted to the course coordinator and be approved prior to the first visit. At the end of each site experience the student will evaluate the experience with the facilitator based on the established objectives. The student will submit a portfolio of their work over the two years in the dental hygiene program.

Credits: 2

DHYG-420: Clinical Dental Hygiene III

The purpose of this course is to provide continued clinical experiences for the second-year dental hygiene student in the practical application of educational, preventive and therapeutic dental hygiene services. Students will begin to prepare for the transition from dental hygiene student to registered dental hygienist. Students will be provided guidance in increasing clinical competency in basic dental hygiene skills and problem solving. Emphasis will be placed on comprehensive patient care that uses the dental hygiene process of care, patient assessment, dental hygiene diagnosis and treatment planning, implementation and evaluation of dental hygiene care to include: patient education, instrumentation, application of preventive therapies, radiographic skills, non-surgical periodontal therapy, ultrasonic instrumentation, patient management, and sealants. The clinical sessions combine dental hygiene skills with time management techniques while enhancing the psychomotor instrumentation skills. Comprehensive treatment plans will be written and focus on critical thinking and patient care. Students are expected to complete assessments and delivery of dental hygiene services in a more expeditious and independent manner. The students will be scheduled in clinical rotations that will provide observations and /or experiences with the special care client population, hospital dental hygiene, pediatric clients, orthodontic clients, dental radiology and interpretation, and interaction with Advanced Education in General Dentistry residents.

Credits: 4

DHYG-421: Periodontics (hybrid)

The intent of this course is to present the field of Periodontics to the second-year dental hygiene student. Based on the foundation of the introductory course, the student will explore the diseases of the periodontium as well as surgical and non-surgical therapies. Students will gain experiences with autonomous decision making of evidence-based treatment planning and case management. The is a hybrid course that includes lectures in the classroom and online. Sixty (60) percent of lectures are online and forty (40) percent are in the face to face classroom. (The hybrid structure is subject to change and the course may become fully online if there is a Covid 19 resurgence this semester)

Credits: 2

DHYG-422: Clinical Dental Hygiene IV

This course is designed to continue to enhance the skills necessary in providing clinical preventive and therapeutic dental hygiene services. Students will continue with the transition from dental hygiene student to registered dental hygienist. Students will be provided guidance in advanced dental hygiene skills and problem solving. Experiences in comprehensive dental hygiene patient care will include advanced patient assessment, dental hygiene diagnosis and treatment planning, implementation and evaluation of dental hygiene care (patient education, nutrition counseling, non-surgical periodontal therapies, application of chemotherapeutic agents, advanced techniques in debridement and ultrasonic instrumentation, dental sealants and management of anxiety and pain. Emphasis will be placed on helping each student reach clinical competency and prepare for clinical practice.

Credits: 4.6

DHYG-423: Clinical Dental Hygiene Theory III

This course is designed to introduce the student to dental office management and teach the student necessary skills to function as a productive dental team member. Emphasis will be placed on the practical aspects of office management and team building. Course content will focus on professional resumes, interviewing, hiring, computer programs, insurance, risk management, conflict resolution, marketing strategies, lifelong learning, and planning for retirement.

Credits: 1

DHYG-430: Clinical Dental Hygiene Theory II (hybrid)

This course is a continuation of Clinical Dental Hygiene Theory I. It involves the didactic approach to implementing current dental hygiene services. After completing this course, the student will demonstrate competence when applying current dental hygiene methods. This is a hybrid course that includes 30% of lectures are online in Blackboard and 70% of lectures are in the face to face classroom.
Credits: 1.5

DHYG-440: Clinical Dental Hygiene Seminar I (hybrid)

This course is designed to advance the student in clinical care for the patient and to reinforce prior course materials presented while expanding the knowledge of the student. As a hybrid course, self-directed learning will be fostered along with online collaboration and full student participation. Upon successful completion of lectures, tests and assignments the student will be able to satisfactorily discuss and demonstrate advance instrumentation, chemotherapeutic aids, exposure and infection control along with exude confidence in presenting their table clinic topics to their peers and the public.
Credits: 1

DHYG-441: Clinical Dental Hygiene Seminar II (hybrid)

This hybrid course is designed to enhance critical thinking of the second year dental hygiene student in aspects of advanced instrumentation, advanced fulcrums and additional clinical techniques. The dental hygiene student will also be exposed to treatment modalities not formally included in dental hygiene curricula (treatment of obstructive sleep apnea (OSA), HIV screening chairside in dental offices and myofunctional therapy. Group research, group presentations and career longevity discussions will be conducted; culminating in individual table clinic presentations at the Nations' Capital Meeting sponsored by the District of Columbia Dental Society (DCDS).
Credits: 1

DHYG-450: Research Practicum and Statistics II

This research practicum is designed to stimulate the students' interest in and the value of research in the field of dental hygiene. It will provide students with experiences to enhance their analysis of the current scientific literature and a basic understanding of research methodology important to evidence-based decision-making. Students will be able to: perform an electronic database search to review the current scientific literature, write an annotated bibliography and paper; critique a scientific research article from a refereed journal and perform a quality assurance review of patient clinical records.
Credits: 2

DHYG-460: Nutritional Counseling

The intent of this course is to acquaint the dental hygiene student with: the basics of nutrition, performing a digital dietary assessment, and providing nutritional education for the dental hygiene patient. Additionally, a specific focus on nutritional counseling and oral care maintenance will be provided for students to individualize these specifics in the patient's treatment care plans.
Credits: 1

Dentistry

CLDE-102: Clinical Observation II (D1)

This is the clinical rotation course occurring at the beginning of the Second year clinical rotation course receiving its final grade in the Spring of the D2 year. It continues the introduction of Clinical Dentistry throughout the academic year. Students will rotate through all dental disciplines and experience opportunities to chairside observe, assist, and complete assignd tasks associated with patient care.
Credits: 0

CLDE-129: Clinical Observation I

This is a clinical rotation and serves to introduce and acclimate the student to the activities involved in patient treatment through Clinical Dentistry

Credits: 0.5

CLDE-225: Clinical Observation (D2)

This course is the culmination of the entire Clinical Observation curriculum. The experience prepares students for entry into the dental clinic and reinforces the clinical policies and procedures to be used in evidence based, patient centered. Care.

Credits: 2.5

CLDE-247: Clinical Observation II (D2)

This course covers continued clinical observation of practices and procedures required in speech-language pathology in preparation for clinical fieldwork and combines on-site observations with class discussion. Seventeen hours of observation in educational settings is required

Credits: 0

DENT-111: Evidence Based Decision Making I

This course introduces the student to the fundamental elements of epidemiology, study design and the ability to critically read the published dental literature. The student will gain an appreciation of scientific research methods and be able to read and critically assess the published dental literature. The course will introduce the student to the analysis of peer reviewed publications using the Literature Analysis Form (LAF).

Credits: 0.5

DENT-112: Microbiology/Immunology

This is a lecture-laboratory course in medical microbiology and immunology that is designed for first year dental students. The course deals with general characteristics of microorganisms, their distribution, relation to disease and their control. Bacterial, viral, and mycotic infectious agents are covered as they relate to disease and health. Emphasis is given to microbes that cause infections of the oral cavity. Resistance (immunity) to disease with practical infection control as applied to patient care and treatment of disease is also covered.

Credits: 6

DENT-169: General Anatomic Sciences

General Anatomical Sciences (GAS) is an 8-unit course that combines gross anatomy, neurobiology, developmental biology and evolutionary biology. An understanding of these topics is essential for the study of histology, physiology, pathology, and the clinical sciences in dentistry to supports Life-Long Learning as Dentists.

Credits: 8

DENT-170: Biochemistry

This course is designed to introduce dental students to the fundamental principles of biochemistry. The four major classes of biological macromolecules—proteins, carbohydrates, lipids, and nucleic acids—are introduced. The structure and function of enzymes are examined. Metabolic pathways will be discussed. Breakdown of amino acids for energy and to provide cellular building blocks is covered, along with a discussion of the biosynthetic pathways by which carbohydrates, fatty acids, and amino acids are made. Finally, topics such as nutrition, the response of cells to hormones (signaling), and cancer are reviewed. The hope is that this course will give students a molecular-level appreciation of how organisms and cells function.

Credits: 4

DENT-172: Oral Diagnosis

This course is designed to provide the first-year dental students with an introduction to oral diagnosis. The students will be able to relate the didactics of basic science to its oral diagnosis clinical application. This is achieved by introducing the students to the various aspects of oral diagnosis. He/She will be exposed to patient history, clinical exam, treatment planning and basic management. The students will become familiar with terms and protocol used in oral diagnosis to obtain a general understanding of basic sciences and its relevance to clinical evaluation.

Credits: 1

DENT-173: Pathology

General Pathology is a course that concerns the cause and the manifestations of diseases that affect the human body of relevance to dentistry. This course will provide a clear understanding of the structural changes that underlie clinical symptoms and signs. In addition, with many new TV shows (CSI, Bone, etc) shedding some light on the important contributions to health care made by pathologists and laboratory professionals, you may find yourself answering pathology questions in your community.

Credits: 6

DENT-174: Physiology

This is a fundamental course in normal human physiology encompassing all relevant areas of the subject, from cellular function to organ systems, and focusing on the interrelationships among these systems. The topics covered closely parallel those outlined in Curriculum Guidelines in Physiology for dental students. The course is so constructed as to apply the scientific method where appropriate in order for students to comprehend basic physiological principles, concepts, and values.

Credits: 7

DENT-176: Case Presentation

This course is designed to provide senior students a strong, working knowledge of case base dentistry so that they can predictably perform well on the National Boards Part II. The class will provide the student a methodology for answering board questions relying on the transference of specific dental knowledge to individual cases and thorough assessment of the patient's "problems" identified by discipline, with application to the sequenced comprehensive treatment plan and specific treatment modalities. A very comprehensive approach to problem solving is stressed.

Credits: 2

DENT-198: Micro Anatomy (Histology) Lec/Lab

This is course combines basic cell biology, general microscopic anatomy of organ systems, and oral histology. An understanding of these topics is essential for the study of physiology, pathology, and many clinical procedures.

Credits: 4

DENT-199: Ethics and Professionalism

This course is designed to introduce the first-year dental student to aspects and concepts of Ethics & Professionalism. The students will be able to relate to these concepts in a variety of ways including case presentations, guest lectures, current news trends, group participation, etc. Exposure to a variety of topics and points of discussion to demonstrate Ethics & Professionalism in the field of Dentistry will assist the student with future health care ethics courses. Opportunities are also made for self-reflection through lecture, group participation and discussion. Additionally, as part of the Class there are opportunities exchanges to keep the Dean of the College informed of student issues and concerns.

Credits: 1

DENT-202: Pharmacology II

This course continues the discussion of general principles of drug action and the pharmacology of therapeutic agents. Emphasis will be placed on specific drugs used in routine clinical dentistry, when appropriate. Agents used for nondental indications will also be covered since they can influence dental treatment directly or indirectly. Finally, the course offers a thorough review on drug adverse effects, drug-drug interactions, and prescription writing

Credits: 3

DENT-225: Evidence Based Decision Making II

This course will continue where the evidence-based decision making I course left off. The course will instruct the student in how to analyze peer reviewed publications using the Literature Analysis Form (LAF) and also provide more instruction to students about how to read and understand systematic reviews.

Credits: 1

DENT-248: Pharmacology I

This course describes the basic principles of pharmacokinetics and pharmacodynamics, with an emphasis on dental applications. This is a two-part course, with the second part provided in the second semester of the second year for dental students.

Credits: 3

PERI-118: Periodontics Lab

This laboratory course incorporates the principles learned in the periodontics lecture courses into chair side experience. Students will learn to develop the diagnostic information used in planning treatment, reinforce terminology, identification of instrumentation, and chairside positioning, in preparation for performing clinical techniques

Credits: 2

PGDP-641: Pediatric Dentistry/Clinic/Hospital

Provides dental residents an in-depth experience in pediatric detistry in a clinil / hospital setting.

Credits: 12

PGDP-700: Pediatric Dentistry Practice Organization

This courses teaches pediatric dentistry residents how to manage risks in order to provide a safe and secure working environment, ways to manage projects in dental practices and set targets, and how to manage the resources needed in a pediatric dental practice

Credits: 1

PGDP-738: Case Analysis Seminar

This course will consist of one semester of 48 one-hour seminars designed to integrate all the basic knowledge of orthodontics learned, bringing together the different elements of facts, experience and reading, controversies in the field are discussed from every aspect. The student is afforded a platform from which he/ she can express opinions and dispel errors of judgment in a dialogue with classmates and the instructor.

Credits: 2

PGDP-752: Pediatric Dentistry Clinic/Hospital

This course is designed to give the postdoctoral resident a broad base of information concerning the specialty of pediatric dentistry in a way that will result in their ability to confidently practice as a specialist in pediatricdentistry. It is designed to integrate fundamentals of pediatric dentistry with clinical techniques and to allow the resident to theorizeand apply those fundamentals through critical thinking

Credits: 8.5

PGDP-761: Clinical Introduction

This course provides an overview of dental medicine to engage, educate, excite and assist you in improving the oral health of your patients and members of your community.
Credits: 2

PGDP-780: Pediatric Dentistry Clinic / Hospital

This course is designed to give the postdoctoral resident a broad base of information concerning the specialty of pediatric dentistry in a way that will result in their ability to confidently practice as a specialist in pediatric dentistry.. It is designed to integrate fundamentals of pediatric dentistry with clinical techniques and to allow the resident to theorize and apply those fundamentals through critical thinking.
Credits: 4

PGDP-800: Research Seminar

The main goals of research seminar are to acquaint students with the basic concepts and methods of statistics, their applications, and their interpretations as used in dental health research. Students will learn quantitative research terminology and its meaning, how to calculate various statical measures and indices, and how to compute and interpret inferential statistical techniques.
Credits: 2

PGDP-801: ABO Literature Review

This course is designed to assist the postdoc/resident in the maturation of the skills necessary to integrate the understanding of patient assessment, pathophysiology and disease progression, evidence-based practice, patient-centered customized treatment, and ethics into a patient-centered practice of pharmacotherapeutics. We will work to provide a framework where critical thought, problem-solving, adaptability, and judgement are nestled in basic pharmacodynamics, pharmacokinetics and pharmacogenetics but move beyond that to provide appropriate and effective use of medications within comprehensive clinical dental practice.
Credits: 2

PROS-216: Removable Prosthodontics Lecture (D2)

This course is designed to explain, through words and projected visual illustration slides, the techniques that are to be performed in the laboratory. The lecture will also explain the rationale of these techniques and how they are based on sound biologic and mechanical concepts and principles
Credits: 3

PROS-250: Fixed Prosthodontics Lec I

This lecture course is designed to precede the Fixed Prosthodontic Laboratory Course. The student will briefly revisit the fundamental concepts of occlusion as related to Fixed Prosthodontics and learn the basic principles used in performing Fixed Prosthodontics procedures an their inter-relationship with Removable Prosthodontics and other disciplines
Credits: 0

REDE-108: Restorative Operative

This course is the introductory presentation of Operative Dentistry. The student will learn about the anatomy and occlusal schemes of teeth, their development and histologice considerations in treatment planning care of the dentition. Students will learn about the carious process and manners in which teeth can become damaged due to disease and trauma and will learn the indications and methods of treatment. This course will prepare the students for the clinical phase of operative care.
Credits: 1

Economics (EMBA)

XECN-500: Applied Economics for Executives

Economic forces of change, basic functions of economic system, aggregate economic theory including inflation and unemployment, and national income accounting theory and analysis. In addition, investigation of price theory in allocation of resources, market structures, quantitative estimating, business decisions on price and output, and forecasting of costs and profits will be explored.
Credits: 3

Economics (GR)

ECOG-200: Microeconomic Theory I

Advanced study of microeconomic analysis.
Credits: 3

ECOG-201: Microeconomic Theory II

Continuation of Microeconomic Theory I, with emphasis on selected problems in microeconomic analysis.
Credits: 3

ECOG-202: Macroeconomic Theory I

Advanced study of microeconomic analysis.
Credits: 3

ECOG-203: Macroeconomic Theory II

Continuation of Macroeconomic Theory I, with emphasis on selected problems in macroeconomic analysis.
Credits: 3

ECOG-204: History of Economic Analysis

Provides a critical and interpretive study of the evolution of economics from ancient times to contemporary economic thought.
Credits: 3

ECOG-205: Microeconomic Theory III

Continuation of Microeconomic Theory II, with emphasis on selected problems in microeconomic analysis.
Credits: 3

ECOG-206: Macroeconomic Theory III

Continuation of Macroeconomic Theory II, with emphasis on selected problems in macroeconomic analysis.
Credits: 3

ECOG-207: Workshop in Economic Research

This course is for students interested in conducting original research on economics questions. There will be an emphasis on choice of research topics, primary sources, data sources, and research methods. The primary activities are oral presentations, the preparation of a paper, and providing constructive feedback on classmates' research projects.
Credits: 3

ECOG-210: Advanced Statistics

The course is designed for acquiring professional skills and knowledge in the area of statistics. The students

will be enabled to independent treatment of statistical research issues. Data analysis of typical research problems will be done in R or SPSS.

Credits: 3

ECOG-211: Econometrics I

Review of matrix algebra, probability, statistical inference, and single equation model.
Credits: 3

ECOG-212: Econometrics II

Advanced studies in econometric models.
Credits: 3

ECOG-213: Mathematics for Economists

Examines the mathematical concepts of matrix algebra, differentiation, the implicit function theorem, convexity and concavity, integral calculus, differential and difference equations.
Credits: 3

ECOG-220: Growth and Development Economics I

Study of the major theories of economic development.
Credits: 3

ECOG-221: Growth and Development Economics II

Selected issues and problems of national development through the technique of planning.
Credits: 3

ECOG-228: Growth and Development Economics III

Examination of selected problems in economic development.
Credits: 3

ECOG-230: Urban Economics I

The history and origins of cities; location theory, urban spatial structure; theories of urban decay; urban housing markets; urban transportation structure; urban poverty and discrimination; and gentrification.
Credits: 3

ECOG-231: Urban Economics II

Study of selected urban economic problems.
Credits: 3

ECOG-237: Urban Economics III

Advanced treatment of urban problems and planning in relation to regional economics and location theory.
Credits: 3

ECOG-244: International Economics I

Detailed study of the theoretical foundations of international trade.
Credits: 3

ECOG-245: International Economics III

The study of policy behavior of such economic aggregate variables as exchange rate, interest rate, tariffs, trade controls, custom unions, common markets, balance of trade, devaluation, and economic integration in open economies.
Credits: 3

ECOG-249: International Economics II

Examines the relationship between the balance of payments and money; discusses the effects on domestic

economy of domestic policies under different exchange rate systems. Topics include balance of payments adjustment mechanisms, capital movements, monetary and fiscal policies to attain domestic and external targets, exchange rate determination and choices of exchange rate systems.

Credits: 3

ECOG-261: Labor Economics I

Analysis of labor supply, with emphasis on the forces which influence the personal distribution of income.
Credits: 3

ECOG-262: Labor Economics II

Analysis of the theory of labor demand at the advanced level of modern neoclassical analysis and welfare economics.
Credits: 3

ECOG-263: Labor Economics III

New developments in human resources economics in relation to such nonhuman resources as energy.
Credits: 3

ECOG-400: PhD Dissertation

Dissertation guidance for doctoral students. See page 577 for additional information on dissertation hours.
Credits: 9

ECOG-401: PhD Dissertation

Dissertation guidance for doctoral students. See page 577 for additional information on dissertation hours.
Credits: 3

Economics (GR)

GECN-500: Macroeconomics for Business

This course provides an overview of macroeconomic issues: the determination of output, employment, unemployment, interest rates, and inflation. Monetary and fiscal policies are discussed. Important policy debates such as, the sub-prime crisis, social security, the public debt, and international economic issues are critically explored. The course introduces basic models of macroeconomics and illustrates principles with the experience of the U.S. and foreign economies.
Credits: 3

GECN-503: Economics for Global Business

This course is an online, Masters level course with an emphasis on the basic concepts of macroeconomics and microeconomics with an understanding of international trade and an introduction to the financial systems role in the economy. It consists of four parts. The first part deals with the introduction and overview of national income and the open economy. The second part deals with economic factors of production, supply and demand. The third part deals with economic growth. The fourth section deals with an overview of asset pricing and institutions.
Credits: 3

Educ. Leadership & Policy

ELPS-280: Supervision of Instruction

This course is designed to review/discuss the foundations of a teacher supervision and evaluation system which includes emphasis on adult learning theory, classroom supervision/coaching, supervision which promotes professional growth, principles/standards for effective teacher evaluation and performance-based approaches to teacher development/ school improvement that are closely aligned with student learning

outcomes.
Credits: 3

ELPS-284: Public Administration

This course provides an overview of the study and practice of public administration. It gives students an overview of the basic concepts and issues in the field, including theories of organization, public policy, public management, decision making, public law, program implementation and evaluation, and ethics, and notes how the field has developed over time. Students develop skills in decision making, and in appreciating the multiple perspectives, values, and ethical challenges of public service.
Credits: 3

ELPS-382: Conceptual Cases in Administration & Supervision

This course is designed to examine the significance of effective school supervision. Examination of both formative and summative models will be examined as well as their role in improving teaching and learning.
Credits: 3

ELPS-384: Practicum in School Administration & Supervision

This course is focused on how organizations change, and how to be a change agent in an organization. It emphasizes the forces for change, the change implementation process, the qualities and skills of successful change agents, and the behavioral theory of how individuals and organizations change
Credits: 3

ELPS-386: School Finance and Information Management Systems

This course introduces the tools and techniques education leaders will need to be able to budget, administrate, and manage school funding. Participants will develop an understanding of the fundamental issues of education finance by examining sources of revenue on federal, state, and local levels. Participants will also learn about approaches and procedures for budgeting, forecasting budgets, managing business operations, the reporting and auditing of funds, and issues specific to funding special education and school choice.
Credits: 3

ELPS-422: Seminar in Educational Policy

This course provides a history of education policy in the United States leading to current policy issues centered around access and equity in education.
Credits: 3

ELPS-435: Human Resource Management

This course examines the policies and practices used by human resource management staff to build and maintain an effective work force. Topics include human resource planning, job analysis, recruitment, selection, performance appraisal, manpower development, compensation, and labor relations.
Credits: 3

ELPS-455: Ethics in Decision Making

Ethical decision making is essential for values-based leadership. Most decisions have ethical implications, but discerning the ethical dimension requires skill and an understanding of how ethical issues are shaped and informed by ethical theory. In this class students encounter theories from the field of ethics such as utilitarian, deontological, social contract, communitarian, and natural law. Students also interact with major philosophical concepts such as principles of nonmaleficence; beneficence; justice and respect for persons; and virtues of care, compassion, integrity and courage.
Credits: 3

ELPS-506: Independent Study

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

ELPS-514: Organizational Change in Education

This course is focused on how organizations change, and how to be a change agent in an organization. It emphasizes the forces for change, the change implementation process, the qualities and skills of successful change agents, and the behavioral theory of how individuals and organizations change.
Credits: 3

ELPS-517: Workshop on Leadership Development

This leadership development course will: Provide participants with an understanding of leadership and how it differs from management. Develop the participants' ability to articulating values, inspiring others to share a vision, employ systems thinking, and lead change effectively.
Credits: 3

ELPS-519: Information Technology in School Management

This course provides a fundamental understanding of technology planning and selected computer applications for educational leaders and administrators. The focus of instruction is to have educational leaders use the computer as a decision-making and planning tool for carrying out communication functions of administration at the building/district office levels, classroom management, and instructional presentation.
Credits: 3

ELPS-520: Financial Management in School Administration

This course introduces the tools and techniques education leaders will need to be able to budget, administrate, and manage school funding. Participants will develop an understanding of the fundamental issues of education finance by examining sources of revenue on federal, state, and local levels. Participants will also learn about approaches and procedures for budgeting, forecasting budgets, managing business operations, the reporting and auditing of funds, and issues specific to funding special education and school choice.
Credits: 3

ELPS-521: Educational Administration and Governance

The goal of the Educational Administration and Governance course is to facilitate candidates' deep thinking concerning substantive aspects of administration and governance. Candidates will examine and critique the extent to which social justice and equity exists for students who have traditionally experienced oppression at the societal level, as well as in micropolitical public schools in the United States. Using Critical Race Theory as the theoretical framework, candidates will be provided learning opportunities to understand, challenge, reflect upon and make practical applications of administrative theory and policy vis-'e0-vis the impact upon Black and Brown students. Utilizing key elements of both democratic classroom and adult learning theories, governance structures and the underpinnings of policy-making will also be covered in this course through a contemporary examination of interest groups that shape the ways in which public education as a socio-political function is conceived, perceived, structured and implemented.
Credits: 3

ELPS-523: Research in Educational Leadership & Policy Studies

This course introduces the concepts and skills involved in understanding and analyzing research in education and related areas. The course provides an overview of basic, general knowledge of various research methodologies. Students should expect to study much of this material in greater depth through additional course work before being fully prepared to conduct independent research. However, this course should enhance their ability to locate, read, comprehend and critically analyze research articles and reports. Topics in the course include quantitative and qualitative methods and designs, historical and descriptive research and program evaluation.
Credits: 3

ELPS-524: Intro to Qualitative Research

This course is designed to introduce students to qualitative research methods. The course will use a combination of didactic, interactive and applied techniques to teach knowledge and skills relevant to qualitative research. Through the course, students will be expected to conduct their own qualitative study. Students will work individually to collect data throughin-depth interviews. Students work in small groups to analyze the data, and present the results of the analysis. Students will submit their interview guides and interview transcripts for evaluation. Students will also learn the basic steps of qualitative data analysis. Students will submit their codebooks, and an analytical product for evaluation. In addition, students will be evaluated on their final presentation, and on their in-class participation.
Credits: 3

ELPS-525: Case Law in Public School Administration

This course is designed as a beginning law course for school teachers. Topics to be studied include organizational structures of school, federal and state systems, church-state related issues, teacher rights, rights of students with disabilities, instructional issues, tort liability, and equal opportunities in education.
Credits: 3

ELPS-584: Internship

Intensive field experience in a supervised setting, emphasizing research, clinical practice, or college teaching.
Credits: 6

ELPS-599: Research Preparation Seminar

The purpose of this course is to take students from a point at which they have general ideas about their dissertation topic through the development of a solid structure, research strategy and drafting of framing chapters.
Credits: 3

ELPS-600: Dissertation Research

In consultation with the mentor and advisory committee, the student will design and conduct research to complete the aims identified in his/her research proposal or as modified subsequently in line with recommendations from the committee. See note on page 577 related to dissertation courses.
Credits: 6

ELPS-602: Minority Serving Institutions

This course will provide historical and societal background on the creation and emergence of MSIs within the U.S. higher education context.
Credits: 3

ELPS-603: The College and University President or Chancellor

This course studies leadership styles, skills, roles, and functions of leaders of organizations. Students will gain a broad understanding of the history and origins of leadership, theoretical approaches to leadership, and ethical issues facing contemporary leaders.
Credits: 3

ELPS-604: History of Higher Education

The history of higher education begins in the ancient world..... This is a broad survey course intended to acquaint learners with the significant events and themes of both mainstream higher education and those institutions often thought to be on the fringes of American higher education.
Credits: 3

ELPS-605: Higher Education Policy

The purpose of the course is to critically review current policy issues in higher education. The policymaking process as well as methods of policy analysis and policy research will be reviewed, understood, and applied during the course.
Credits: 3

ELPS-606: Higher Education Administration, Leadership, and Governance

Students are provided an overview of the organization, governance, and administration of higher education.
Credits: 3

ELPS-607: Diversity and Multiculturalism in Higher Education

The course is designed to help candidates examine how race, ethnicity, and culture influence students' experiences in school, and implement a multicultural approach to teaching. The course will explore cultural assumptions, attitudes, and values that shape our perceptions and predicate our action.
Credits: 3

ELPS-608: Law in Higher Education

This course examines the legal aspects of higher education, sources of law and authority presented; impact on, interaction with, and implications of the administration of higher education are discussed. The course provides an overview of the legal issues that arise in public and private college and universities and the policy implications of those issues.
Credits: 3

ELPS-609: Advanced Qualitative Research

An intensive analysis of the theory and practice of qualitative research in Higher Education, including a review of primary methods such as grounded theory, case study, and phenomenology and an examination of additional methods such as connoisseurship, ethnomethodology, and symbolic interactionism.
Credits: 3

ELPS-610: Financial Management in Higher Education

This 3-semester hour course is an introductory examination of financial, economic, and budgetary issues within higher education. Focusing on not-for-profit postsecondary schools, students will review the primary political, economic, and social issues influencing higher education finance, examine revenue streams and expenditure patterns, survey tuition and financial aid policies, develop the ability to examine and analyze financial information, and assess the budget as an instrument of strategic planning, resource allocation, and control.
Credits: 3

ELPS-611: Board and Community Relations

This course provides a survey of the principal aspects of school community relations for aspiring or current educational leaders.
Credits: 3

ELPS-612: Contemporary Issues in Student Affairs

This course provides an overview of college student developmental theory, research, and practice, as well as an overview of the history of and contemporary issues in the American college and university, and the student affairs profession. Emphasis is placed on the roles of the college and university, college and university administrators, college and university structure, and student affairs personnel in American higher education.
Credits: 3

ELPS-613: Fundraising in Higher Education

This course provides a historical, philosophical, and organizational overview of the practices of philanthropy as it relates to college and universities. Examines the implications for research and practice in higher education that are associated with its cultivation of philanthropy, institutional advancement and fundraising activities.
Credits: 3

ELPS-614: Institutional Research

This course provides an introduction to the theoretical and practical application of data-driven decision making for institutional researchers. This course focuses on how to collect, analyze, review, and present data and information to decision-makers.
Credits: 3

ELPS-615: Research Practicum

Activities related to active research under supervision by a faculty member. Two 1-credit courses are required for the doctoral qualifying examination.
Credits: 3

ELPS-617: Workshop on Leadership Development

This leadership development course will: Provide participants with an understanding of leadership and how it differs from management ..... Develop the participants' ability to articulating values, inspiring others to share a vision, employ systems thinking, and lead change effectively.
Credits: 3

Educational Admin & Policy

EDAP-231: Multicultural Education: Issues and Trends

Explores the relationship between urban schooling and racial/ethnic/religious micro-cultures, with emphasis on public policy.
Credits: 3

EDAP-252: History of Black Education in the U.S.

Examines the development of educational opportunities for Black Americans in the United States.
Credits: 3

EDAP-518: Politics of Education

Provides an overview of the origins, nature and impact of political forces surrounding and influencing schools.
Credits: 3

Electric & Computer Engineering

EECE-416: Microprocessors and Microcomputers

This course introduces microprocessor architecture and microcomputer systems including memory and input/ output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics.
Credits: 3

EECE-420: Introduction to VLSI design

This is an introductory course which covers basic theories and techniques of digital VLSI design in CMOS technology. In this course, we will study the fundamental concepts and structures of designing digital VLSI systems include CMOS devices and circuits, standard CMOS fabrication processes, CMOS design rules, static and dynamic logic structures, interconnect analysis, CMOS chip layout, simulation and testing, low power techniques, design tools and methodologies, VLSI architecture.
Credits: 3

EECE-460: Wireless Communications

Presents the physical layer of wireless communication systems, implementation of speech coding, error control, modulation/demodulation and filtering schemes for wireless links using digital signal processors for base band functions.Prerequisite: EECE-453.Course Offering: Spring Semester
Credits: 3

EECE-487: Telecommunications

Consists of telecommunications systems design for point-to-point and mass data distribution, modulation techniques, propagation modes and control methods.Prerequisite: EECE-453. Course Offering: Spring Semester
Credits: 3

EECE-501: Graduate Seminar

Presentation of current engineering topics by faculty, students, and individual guest speakers
Credits: 0

EECE-502: Engineering Analysis A

Ordinary differential equations, finite differences and their applications to engineering problems. Fourier series and integrals, Laplace transform, partial differential equations, Bessel & Legendre polynomials.
Credits: 3

EECE-503: Engineering Analysis B

Vector calculus, vector fields, dyadics, tensors, boundary value problems, solution to linear homogeneous boundary value problems, separation of variables and Green's functions, two-dimensional potential problem and informational mapping, introduction to non-linear differential equations and variations and perturbation methods.
Credits: 3

EECE-505: Power Systems Controls

Elementary constrained optimization, optimum operating strategies, control system structure, megawatt frequency control, voltage control, optimum systems control, power-pool control, contingency analyses and power systems state estimation.
Credits: 3

EECE-507: Computer Aided Power System

Computer application to operation, control and analysis of power systems. Load flow, load forecasting, unit commitment, load scheduling, network modeling, fault study, transient stability analysis, reliability, future expansion of systems, security and contingency analysis, on-line dispatch techniques and state estimation in power systems.
Credits: 3

EECE-508: Intelligent Systems and Applications

Overview of artificial intelligence, representation of knowledge, rule based expert systems, introduction to expert systems languages such as LISP, OPS, and PROLOG, basic concepts of fuzzy theory, relations, regression

models, mathematical programming, neural networks, learning architectures, application of neural networks and expert systems, fuzzy systems to control, communications and power systems.

Credits: 3

EECE-509: Digital Control I

System equations, system representation, control system characteristics, root locus, frequency response, closed loop performance, root locus compensation and cascade and feedback compensation.
Credits: 3

EECE-510: Digital Control II

System equations, system representation, control system characteristics, root locus, frequency response, closed loop performance, root locus compensation and cascade and feedback compensation
Credits: 3

EECE-541: Probability and Random Variable

Axioms of probability measure, random variables, functions of random variables, stochastic processes, stationary and ergodic processes, correlation and power spectrum, linear mean-square estimation, and applications.
Credits: 3

EECE-561: Signal Processing I

The course covers theory and methods for digital signal processing including basic principles governing the analysis and design of discrete-time systems as signal processing devices. DSP is a logical extension of Signals and Systems in which we take a comprehensive view of discrete-time systems.
Credits: 3

EECE-599: Thesis Course

The purpose of this course is for the design and performance of research leading to a Masters. See note on page 577 related to thesis hours.
Credits: 6

EECE-603: Control Theory

State variable description of dynamic systems, solutions of differential and difference equations by transition matrix, controllability and observability of linear systems, perturbation of nonlinear systems, stability of nonlinear systems, Liapunov's direct method, realization of transfer matrices by state equations, state and output feedback, pole assignment using state and output feedback reconstruction of state from output.
Credits: 3

EECE-604: Optimization Theory

Theorems of extremum, applications of the theorem, illustrative problem, theorems on necessary conditions for extremum of functions and functionals, theorems on sufficient conditions for extremum of functions and functionals, simplex method for solving linear programming problems, dynamic programming and decomposition theorem, and non-linear optimization.
Credits: 3

EECE-611: Detection Theory

Statistical detection theory, hypothesis testing, optimum decision rule, Bayes criterion, Nyaman- Pearson criterion, minmax testing, multiple observation, composite hypothesis testing, sequential detection.
Credits: 3

EECE-612: Estimation & Filtering

Gaussian and Markov processes, stochastic differential equations, single and multiple observation decision theory, Bayesian estimation theory, maximum likelihood estimation, optimum linear filtering, smoothing and prediction, nonlinear estimation.
Credits: 3

EECE-676: Cybersecurity for Net CPS/IoT

This course is designed to introduce emerging topics related to cybersecurity challenges and practical cyber-defense/countermeasures in networked Cyber-Physical Systems (CPS) and Internet-of-Things (IoT). The course will cover fundamental concepts, technologies, theoretical understanding and practical basis for cybersecurity of networked CPS/IoT. Graduate students will complete an independent research project which involves a written and oral presentation not required at the undergraduate level.
Credits: 3

EECE-680: Reading and Research

This is an intermediate-level research methods course. The goals of this course is to help students fully understand basic concepts and techniques of quantitative empirical research and to stimulate their interests to learn more about quantitative research. At the end of the course, students will be not only equipped with basic analytical techniques, but also able to to plan their own empirical research.
Credits: 3

EECE-693: Special Topics in Communications A

This course will be structured around recent (and a few not-so-recent) research papers related to resource allocation in data networks. It is loosely organized into three topics: access pricing, combining resources from heterogeneous network technologies, and the role of content providers. See page 577 for additional information related to Special Topics courses.
Credits: 3

EECE-694: Special Topics in Communications B

This course will be structured around recent (and a few not-so-recent) research papers related to resource allocation in data networks. It is loosely organized into three topics: access pricing, combining resources from heterogeneous network technologies, and the role of content providers. See page 577 for additional information related to Special Topics courses.
Credits: 3

EECE-695: Power System Deregulation

Deregulated electrical power systems, system security, investments in generation and transmission, ancillary services, and nodal pricing.
Credits: 3

EECE-696: Special Topics in Power Systems A

This course is designed to introduce computational methods used for power grid operation and planning. The course will help students understand the various computational methods that form the basis of major commercial software packages used by grid analysts and operators. Students are expected to have some basic understanding of principles of power system analysis including power system models, power flow calculation, economic dispatch, reliable and stability analysis. See page 577 for additional information related to Special Topics courses.
Credits: 3

EECE-699: Dissertation

The purpose of this course is to take students from a point at which they have general ideas about their dissertation topic through the development of a solid structure, research strategy and drafting of framing chapters. See pg. 577 for additional information.
Credits: 1-9

EECE-703: Special Topics in Power Systems & Controls

In this course, classical and modern optimization techniques are covered in sufficient detail to allow students to use them in almost any engineering and non-engineering areas. The focus of the course is on electrical power systems applications. Electrical power industry is going through a major transformation and relies on optimal planning and operations to increase energy efficiency, lower energy cost and address environmental concerns.
Credits: 3

Electrical Engineering

ELEG-502: Engineering Analysis A

Emphasis is on setting up analysis problems arising in engineering. Topics: simple analytical solutions, numerical solutions of linear algebraic equations, and laboratory experiences. Provides the foundation and tools for subsequent engineering courses.
Credits: 3

ELEG-503: Engineering Analysis B

A continuation of ELEG-502. Emphasis is on setting up analysis problems arising in engineering. Topics: simple analytical solutions, numerical solutions of linear algebraic equations, and laboratory experiences. Provides the foundation and tools for subsequent engineering courses.
Credits: 3

Endodontics

ENDO-217: Endodontics

The Endodontic Lecture course is designed to introduce the second-year student to the art and science of endodontics in addition to critical thinking and problem-solving exercises that support clinical diagnosis and treatment of root canal treatment. Because Endodontics is the branch of dentistry concerned with the morphology, physiology and pathology of the human dental pulp and peri-radicular tissues it is imperative that students have a sound knowledge of the etiology of Endodontic disease. Students will study and practice the basic clinical sciences including biology of the normal pulp, and the etiology, diagnosis, prevention and treatment of diseases and injuries of the pulp and associated peri-radicular conditions. Students will learn to understand that knowledge of the science of Endodontics is needed to perform Endodontic therapy, designed to maintain the health of all or part of the pulp. When the pulp is diseased or injured, treatment is aimed at maintaining or restoring the health of the peri-radicular tissues, usually by root canal therapy.
Credits: 2

ENDO-219: Endodontics Lab

The laboratory course for the pre-doctoral endodontic clinical curriculum is designed to introduce the student dentist to the technical aspects of clinical endodontic therapy in anterior and posterior teeth as it relates to fulfilling the fundamental biological principles of endodontic treatment for patient care. The course encompasses: basic tooth and tooth canal morphology and anatomy, radiographic technique, access openings, working length determination, rotary and hand instrumentation of the root canal system, obturation of the root canal systems, safe use of irrigation, and proper use of intra-canal medicaments.
Credits: 3

ENDO-261: IDP Endodontics Lab

The laboratory course for the pre-doctoral endodontic clinical curriculum is designed to introduce the student dentist to the technical aspects of clinical endodontic therapy in anterior and posterior teeth as it relates to fulfilling the fundamental biological principles of endodontic treatment for patient care. The course encompasses: basic tooth and tooth canal morphology and anatomy, radiographic technique, access openings, working length determination, rotary and hand instrumentation of the root canal system, obturation of the root canal systems, safe use of irrigation, and proper use of intra-canal medicaments.
Credits: 0

ENDO-400: Advanced Topics in Endodontics

This course is a continuum of endodontic principles, concepts and fundamentals taught in the Preclinical Lecture Course. Discussions are focused on endodontic principles and practices that are beyond the scope of the introductory and preclinical endodontic course. New and advanced clinical concepts and clinical procedures are introduced that are relevant to clinical situations that present to the general dentistry practice. The course is designed to foster critical thinking, diagnostic data analysis and interpretation, case selection and treatment planning for the general dentist encountering advanced endodontic cases requiring treatment or referral.
Credits: 1

English

ENGW-101: Rhetoric, Inquiry & Critical Writing

This course fulfills the first semester writing course requirement for First-Year Writing. This course introduces students to rhetoric as a critical approach to writing, in addition to specific principles and conventions of expository writing. English Writing 101 stresses critical thinking, the exploration of ideas, and provides instruction in organization, grammatical correctness, and encourages discussion of contemporary issues through writing. NOTE: Upon completion of this course students should register for ENGW-103. Successful completion of this First Year Writing course requires a grade of C or higher.
Credits: 3

ENGW-102: Expository Writing & Literacy Studies

The first course of the two-semester required writing course requirement for First-Year Writing. This course introduces students to rhetoric as a critical approach to writing, in addition to specific principles and conventions of expository writing. English Writing 102 stresses critical thinking, the exploration of ideas, and the development of voice in writing. Students will be expected to engage in discussion of contemporary issues through class discussion and their writing. NOTE: Upon completion of this course students should register for ENGW-103. Successful completion of this First Year Writing course requires a grade of C or higher.
Credits: 3

ENGW-103: Persuasive Writing & Research

The second course of the two-semester required writing course requirement for First- Year Writing. This course builds on the study of rhetoric begun in ENGW-101 or ENGW-102, and introduces students to argumentation and persuasive writing techniques, in addition to the conventions of academic research. English Writing 103 stresses the examination of counter-arguments, the exploration of primary and secondary sources, and familiarity with academic style conventions. Students will be expected to engage in discussion of contemporary issues through class discussion and their writing.
Credits: 3

Prerequisites:

Successful completion of ENGW 101 or 102 with a grade of C or higher. Note: Successful completion of this

First Year Writing course requires a grade of C or higher.

ENGW-104: Writing, Literacy & Discourse

The first course of the two-semester required writing course requirement for First-Year Writing with an emphasis on Writing Studies. This course introduces students to the field of Writing Studies, an area of study that focuses on the production, circulation, and values of academic and other forms of writing. English Writing 104 emphasizes examination of theories about writing, as well as a deep understanding of the writing process and certain forms of professional writing. Students will be expected to engage in discussion of contemporary issues and to develop a digital portfolio as a capstone project for the course. NOTE: Upon completion of this course students should register for ENGW-105. NOTE: Successful completion of this First Year Writing course requires a grade of C or higher.
Credits: 3

ENGW-105: Reflective Writing and Portfolios

This second course of a two-semester required writing course requirement for First- Year Writing. This course builds on the study of writing begun in ENGW-104 and introduces students to the habits of mind employed by season writers of all professions. Additionally, this course emphasizes the conventions of academic research and stresses the selfexamination and the exploration of professional writing conventions as well as the philosophy of writing. Students will be expected to engage in discussion of contemporary issues through class discussion and to develop a digital portfolio as a capstone project for the course.
Credits: 3

Prerequisites:

Successful completion of ENGW 104 with a grade of C or higher. NOTE: Successful completion of this First Year Writing course requires a grade of C or higher.

English (GR)

ENGG-200: Scholarship: Research Methods

The course introduces the language of research, ethical principles and challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches.
Credits: 3

ENGG-201: Scholarship: Critical Methods

Introduces major theories and methods of literary and cultural studies for scholarly research, critical writing, and intellectual exchange.
Credits: 3

ENGG-204: Linguistics

This course investigates the nature of language change, how to determine a language's history, its relationship to other languages and the search for common ancestors or "proto-languages." We will discuss changes at various linguistic levels: sound change, lexical change, syntactic change and changes in word meaning.
Credits: 3

ENGG-205: Studies in Linguistics

The aim of this course is to make you aware of the complex organization and systematic nature of language, the primary means of human communication.
Credits: 3

ENGG-206: Special Topics: Rhetoric

Intended to provide a platform for faculty to teach a class that might address a timely issue (e.g., a current election), or to try out new course ideas. See page 577 for additional information related to Special Topics

courses.
Credits: 3

ENGG-207: Special Topics in English

Intended to provide a platform for faculty to teach a class that might address a timely issue (e.g., a current election), or to try out new course ideas. See page 577 for additional information related to Special Topics courses.
Credits: 3

ENGG-211: English Renaissance Literature I

The poetry, prose and drama of England's most glorious literary period, the 16th and 17th centuries.
Credits: 3

ENGG-212: English Renaissance Literature II

A continuation of ENGG-211. The poetry, prose and drama of England's most glorious literary period, the 16th and 17th centuries.
Credits: 3

ENGG-213: Shakespeare

This course provides an introductory study to Shakespeare's tragedies, comedies, and histories, and a careful study of major plays and sonnets. Shakespeare's importance as a dramatist and the enduring nature of his ideas and vision are stressed.
Credits: 3

Fi

Provides in-depth study of selected English Renaissance literature, from around 1500-1660.
Credits: 3

ENGG-220: Restoration Literature I

This course is a study of literatures in English from multiple genres from 1660-1688, with a particular focus on Black Atlantic literature as it pertains to the British Isles, Anglophone Atlantic, and Africa. Topics range from colonialization, national identification, language, race, class, gender, and sexuality.
Credits: 3

ENGG-221: Restoration Literature II

This course is a study of literatures in English from multiple genres from 1660-1688, with a particular focus on cultural exchanges with the Mediterranean, Near/Middle East, Asia and Pacific. Topics range from colonialization, national identification, language, race, class, gender, and sexuality.
Credits: 3

ENGG-222: Studies in Restoration and 18th-Century Literature

In -depth study of literature from the Restoration period to the early 19th century, from a particular critical, cultural, historical, or philosophical perspective.
Credits: 3

ENGG-223: 18th- & 19th-Century British Literature I

This course surveys British and Anglophone literatures in multiple genres from 1689- 1901, with a particular focus on Black British literature of the Anglophone Atlantic. Topics range from colonization, national identification, language, race, class, gender, sexuality, and political activism.
Credits: 3

ENGG-224: 18th- & 19th-Century British Literature II

This course surveys British and Anglophone literatures in multiple genres from 1689- 1901, with a particular focus on global exchanges with Asia and the wider Pacific World. Topics range from colonization, national

identification, language, race, class, gender, sexuality, and political activism.
Credits: 3

ENGG-225: Studies in English Romantic Literature

This course reviews the subject of Medieval Romance in British literature.
Credits: 3

ENGG-227: Studies in Victorian Literature

Literature and culture of the pre-modern period.
Credits: 3

ENGG-228: 20th- & 21st-Century British Literature I

This course surveys African American literature in multiple genres from the 20th-century to the present.
Credits: 3

ENGG-229: 20th- & 21st-Century British Literature II

A continuation of ENGG-228. This course surveys African American literature in multiple genres from the 20th-century to the present.
Credits: 3

ENGG-231: Caribbean Literature I

This course examines prolific and sometimes understudied writers and their contributions to Caribbean literature and diasporic literature.
Credits: 3

ENGG-232: Caribbean Literature II

A continuation of ENGG-231. This course examines prolific and sometimes understudied writers and their contributions to Caribbean literature and diasporic literature.
Credits: 3

ENGG-233: American Literature I

Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character.
Credits: 3

ENGG-234: American Literature II

A continuation of ENGG-233. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character.
Credits: 3

ENGG-246: Literary Theory and Criticism I

A survey of Western literary theory and criticism with an emphasis on the most prominent theorists, texts, schools, and ideas. It is a course in the history of ideas—specifically, ideas related to the theory and criticism of literary texts
Credits: 3

ENGG-247: Literary Theory & Criticism II

Continuation of ENGG 246 but can be taken independently. Critical approaches to literary theory and criticism with a special emphasis on the comparative study of literature. Qualifies as an elective course in the literary theory concentration.
Credits: 3

ENGG-248: African American Literature I

This course introduces students to the writing of persons of African descent in North America. Students examine and critically study the themes, content, and structure of African-American writing from the late 18th century up through the modern period.
Credits: 3

ENGG-249: African American Literature II

A continuation of ENGG-248. This course introduces students to the writing of persons of African descent in North America. Students examine and critically study the themes, content, and structure of African-American writing from the late 18th century up through the modern period.
Credits: 3

ENGG-270: History of English

This course introduces students of literature and writing to the discipline of English. The course includes an overview of British and American literary history from Old English to hypertext; a study of the elements of literature and practice in close textual analysis with some introduction to critical theory; and seminar-style discussions of current topics in literature (canon studies, multiculturalism, popular culture, etc.)
Credits: 3

ENGG-271: Major African American Authors

Survey of critical ideas and theories by select diaspora scholars and writers. Emphasizes the intellectual tensions and deliberations that undergird attempts to theorize and resolve issues involving the status of black people in the world.
Credits: 3

ENGG-272: Harlem and Chicago Renaissance(s)

The intellectual, cultural, and artistic expressions among African Americans from 1912 to 1933, with an emphasis on the literary texts and social history.
Credits: 3

ENGG-273: The Black Arts Movement

This course examines the Black Arts Movement of the late 1960s to mid 1970s, a multifaceted group of African-American artists, writers, and musicians who were committed to creating politically charged socially relevant art and saw themselves as the cultural wing of revolutionary movements sweeping the country at the time. We'll examine the work of several writers, poets, visual artists, and musicians of the era and situate their work within the political, historical, and artistic context. We'll also ask key questions that remain relevant to artistic production: what is the relationship between art and politics? What is the role of the politically conscious artist?
Credits: 3

ENGG-274: Black Women Writers

This course explores the literature by African-American women writers from the 18th century to the present, analyzing their depictions of racism, sexism, and classism as artistic, moral, and civic responses to inequality. Students learn techniques for critical reading and literary analysis at the upper-division humanities level to understand how these creative works explore issues related to the legacies of slavery and Jim Crow laws, and the influence these writers had on cultural events, such as antilynching journalism, the Harlem Renaissance, the Civil Rights Era, and the Women's Liberation Movement.
Credits: 3

ENGG-299: Teaching of English

This course emphasizes the fundamental language skills of reading, writing, speaking, listening, thinking, viewing and presenting. The course includes studies of various literary genres: short story, poetry, novel, drama, and nonfiction.

Credits: 3

Entrepreneurship

GENT-520: Entrepreneurship

The course also provides the foundation for small business and an overview of business concepts, including topics such as: theories of entrepreneurship, types and characteristics of entrepreneurship, the business life cycle, entrepreneurial economics, accounting and financial management, legal issues, marketing.
Credits: 3

Entrepreneurship (EMBA)

XENT-520: Entrepreneurship

This course provides a comprehensive overview of the entrepreneurship process. Topical coverage includes, but is not limited to, creativity and innovation, intrapreneurship, feasibility analysis, venture finance, and business plan development.
Credits: 3

Ethic Religion

ETRL-200: Introduction to Christian Ethics

Introduction to Christian ethical theology; treats both historical and contemporary figures as well as selected issues relating to personal choice and social policy.
Credits: 3

ETRL-305: Christian Social Ethics

This course is an introduction to Christian social ethics as a field of theological inquiry, with an emphasis upon Christian approaches to social justice. It fulfills the ethics requirement for students in the Master of Divinity degree program.
Credits: 3

Family Pract (Extra Mural Crs)

MFPX-403: Community Health Family Practice (Fam Med) Clerkship

Focuses on the role of the family physician in the therapeutic relationship in terms of the entire patient, family and community.
Credits: 4

MFPX-408: Senior Family Medicine/Primary Care

This clerkship will provide an outstanding learning experience for all medical students emphasizing these basic tenets of family medicine.
Credits: 4

Finance (EMBA)

XFIN-500: Financial Management

Develops understanding of and analytical skills related to basic concepts and principles of financial management, with a focus on the valuation of cash flows, the relationship between risk and return, capital budgeting, and working capital management
Credits: 3

Finance (GR)

GFIN-501: Advanced Corporate Finance

This course is the subsequent course following GFIN-500 Financial Management intended for Graduate Finance majors and other related majors concentrating in the finance area. It covers intermediate to advanced level finance topics such as capital structure and long-term financing, options & futures in corporate finance, mergers & acquisitions, other critical modern finance issues.
Credits: 3

GFIN-502: Financial Markets and Institutions

This course is an MBA level course with an emphasis on the theory application of financial markets, institutions, and asset allocation. It consists of four parts. The first part deals with the introduction and overview of financial markets, institutions, and instruments. In addition we cover the Federal Reserve System, its monetary control functions, and monetary policy. The second part deals with security analysis and evaluation. Part 3 includes the depository financial institutions, including commercial banks. The fourth section deals with investment banks and investment companies.
Credits: 3

GFIN-503: Investment Analysis and Portfolio Management

This course examines four different types of financial markets both global and domestic; equity markets, fixed income security markets, options and futures markets with a focus on the valuation of securities in these markets, the empirical evidence concerning valuation models and strategies that can be employed to achieve various investment goals. Both practical and theoretical aspects of portfolio management will be discussed in the course.
Credits: 3

GFIN-505: Financial Marketing

This is a hands-on graduate course conducted entirely in instructional computer labs, requiring students to work on intensive spreadsheet-based finance assignments and projects in every class, individually and in teams. It is a finance elective for finance majors and a business elective for non-finance majors.
Credits: 3

GFIN-506: Seminar in Financial Engineering

The main objective of this course is to provide the student with an in-depth knowledge of financial derivatives with a focus on the electric power industry. The central topics which will be covered, include: The mathematics of financial derivatives, the economics of the energy sector, futures and options as they apply to the current energy sector. Strong emphasis will be placed both on the mathematical modeling of energy derivatives and the practical aspects of energy markets in the U.S. Measures of risk, portfolio management as it applies to energy products, and value at risk (VAR) models will also be covered.
Credits: 3

GFIN-507: Financial Statements Analysis

The main objective of this course is to provide the student with a solid background in financial analysis. This should enable students to successfully sit for the CFA'ae Level 1 exam. This course is essentially self study with discussion. Students will have a quiz prior to discussing the materials in class.
Credits: 3

GFIN-508: Seminar in Corporate Finance

This course exposes students to a wide range of topics in the finance literature. All Finance Ph.D. students are required to attend, but only those in their second year take it for credit. The course allows students to develop ideas for their dissertations. Students will present papers related to their own interests as well as critical evaluation of the extant literature.
Credits: 3

GFIN-590: Corporate Financial Policy and Strategy

This course is designed to examine the major strategic and policy issues facing firms operating in the increasingly competitive global environment. Its focus is on the relationships of the company's external environment and internal resources which result in the development of broad corporate strategies and specific operational policies. The purpose is to provide students with an in-depth conceptual framework for analyzing those issues and challenges which must be addressed in order to optimize benefits to the corporation as a whole. Thus the course takes an integrative approach to solving problems attendant to: (l) operation in foreign environments, or across national boundaries; and/or (2) competing against global competitors. Note - Because of the prior preparation of the students enrolled in the class this semester, the focus of the course this semester will be on the Environment of International to which the students were not previously exposed.
Credits: 3

GFIN 500: Financial Management

The main objective of this course is to provide the student with an in-depth knowledge of financial management, and an ability to perform financial analysis. The central topics which will be covered include: Financial analysis planning and control, time value of money, opportunity cost of capital, risk and return. A strong emphasis will be placed upon capital budgeting.
Credits: 3

Flute

MUSP-100: Flute Instruction

Private lessons to non-music major. Course can be repeated.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUSP-111: Flute Minor

Includes all minor and major scales and arpeggios, along with suitable studies and solos.
Credits: 2

MUSP-112: Flute Minor

Includes all minor and major scales and arpeggios, along with suitable studies and solos.
Credits: 2

MUSP-121: Flute Minor

Continuation MUSP-111, 112.
Credits: 2

Prerequisites:

MUSP-111, 112 or consent of instructor.

MUSP-122: Flute Minor

Continuation MUSP-111, 112.
Credits: 2

Prerequisites:

MUSP-111, 112 or consent of instructor.

MUSP-131: Flute Minor

Continuation of MUSP-121, 122, with more advanced studies and solos.
Credits: 2

Prerequisites:

MUSP-121, 122 or consent of instructor.

MUSP-132: Flute Minor

Continuation of MUSP-121, 122, with more advanced studies and solos.
Credits: 2

Prerequisites:

MUSP-121, 122 or consent of instructor.

MUSP-141: Flute Minor

Continuation of MUSP-131, 132, with preparation for graduating recital.
Credits: 2

Prerequisites:

MUSP-131, 132 or consent of instructor.

MUSP-142: Flute Minor

Continuation of MUSP-131, 132, with preparation for graduating recital.
Credits: 2

Prerequisites:

MUSP-131, 132 or consent of instructor.

MUSP-211: Flute Major

Instruction in major and minor scales and arpeggios, along with etudes and solos in all styles.
Credits: 4

MUSP-212: Flute Major

Instruction in major and minor scales and arpeggios, along with etudes and solos in all styles.
Credits: 4

MUSP-221: Flute Major

Continuation of MUSP-211, 212. Preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSP-211, 212 or consent of instructor.

MUSP-222: Flute Major

Continuation of MUSP-211, 212. Preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSP-211, 212 or consent of instructor.

MUSP-231: Flute Major
Continuation of MUSP-221, 222.
Credits: 4

Prerequisites:

MUSP-221, 222 or consent of instructor.

MUSP-232: Flute Major
Continuation of MUSP-221, 222.
Credits: 4

Prerequisites:

MUSP-221, 222 or consent of instructor.

MUSP-241: Flute Major

Continuation of MUSP-231, 232 with preparation for senior recital.
Credits: 4

Prerequisites:

MUSP-231, 232, or consent of instructor.

MUSP-242: Flute Major

Continuation of MUSP-231, 232 with preparation for senior recital.
Credits: 4

Prerequisites:

MUSP-231, 232, or consent of instructor.

MUSP-301: Graduate Flute Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSP-302: Graduate Flute Minor II

A continuation of MUSP-301. This course builds upon flute performance techniques.
Credits: 3

MUSP-303: Graduate Flute Minor III

A continuation of MUSP-302. This course builds upon flute performance techniques.
Credits: 3

MUSP-304: Graduate Flute Minor IV

A continuation of MUSP-303. This course builds upon flute performance techniques.
Credits: 3

MUSP-311: Graduate Flute Major I

Private instruction in performance for graduate students.
Credits: 5

MUSP-312: Graduate Flute Major II

Private instruction in performance for graduate students.

Credits: 5

MUSP-321: Graduate Flute Major III

Private instruction in performance for graduate students.
Credits: 5

MUSP-322: Graduate Flute Major IV

Private instruction in performance for graduate students.
Credits: 5

French Horn

MUST-100: French Horn Instruction

Private lessons to non-music major. Course can be repeated.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUST-111: French Horn Minor

Includes major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUST-112: French Horn Minor

Includes major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUST-121: French Horn Minor

Continuation of MUST-111, 112.
Credits: 2

Prerequisites:

MUST-111, 112, or consent of instructor.

MUST-122: French Horn Minor

Continuation of MUST-111, 112.
Credits: 2

Prerequisites:

MUST-111, 112, or consent of instructor.

MUST-131: French Horn Minor

Continuation of MUST-121, 122.
Credits: 2

Prerequisites:

MUSS, 121, 122, or consent of instructor.

MUST-132: French Horn Minor

Continuation of MUST-121, 122.
Credits: 2

Prerequisites:

MUSS, 121, 122, or consent of instructor.

MUST-141: French Horn Minor

Continuation of MUST-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUST-131, 132, or consent of instructor.

MUST-142: French Horn Minor

Continuation of MUST-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUST-131, 132, or consent of instructor.

MUST-211: French Horn Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUST-212: French Horn Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUST-221: French Horn Major

Continuation of MUST-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUST- 211, 212, or consent of instructor.

MUST-222: French Horn Major

Continuation of MUST-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUST- 211, 212, or consent of instructor.

MUST-231: French Horn Major

Continuation of MUST-221, 222.
Credits: 4

Prerequisites:

MUST, 221, 222, or consent of instructor.

MUST-232: French Horn Major

Continuation of MUST-221, 222.
Credits: 4

Prerequisites:

MUST, 221, 222, or consent of instructor.

MUST-241: French Horn Major

Continuation of MUST-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUST-231, 232, or consent of instructor.

MUST-242: French Horn Major

Continuation of MUST-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUST-231, 232, or consent of instructor.

MUST-301: Graduate French Horn Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUST-302: Graduate French Horn Minor II

A continuation of MUST-301. This course builds upon French Horn performance techniques.
Credits: 3

MUST-303: Graduate French Horn Minor III

A continuation of MUST-302. This course builds upon French Horn performance techniques.
Credits: 3

MUST-304: Graduate French Horn Minor IV

A continuation of MUST-303. This course builds upon French Horn performance techniques.
Credits: 3

MUST-311: Graduate French Horn Major I

Private instruction in performance for graduate students.
Credits: 5

MUST-312: Graduate French Horn Major II

Private instruction in performance for graduate students.
Credits: 5

MUST-321: Graduate French Horn Major III

Private instruction in performance for graduate students.
Credits: 5

MUST-322: Graduate French Horn Major IV

Private instruction in performance for graduate students.
Credits: 5

Genetics

GENE-219: Intro to Biochemical Genetics

This course is designed as an introductory course in biochemistry with special emphasis on those areas of biochemistry that are especially relevant to genetics and human genetics. The course is team-taught using faculty members and guest lecturers who have particular interest or training in each topic to be covered. The course is organized around four major units: Proteins and Enzymes, Nucleic Acids, Hormones, and Metabolism. The course is designed to develop a students'; recall of cellular biochemistry, knowledge base of the relationship between the genetic code and the translation of biochemical pathways in disease pathology, comprehension of the relationship between pathological genetic changes to the biological process that cause human disorders.
Credits: 6

GENE-220: Research in Genetics

This course provides academic credit for independent research. It is offered on a variable credit basis and students may elect to register for 1 to 9 credits, depending on the level of time commitment to research the student expects to dedicate. In most cases, the research conducted in this venue is research under the guidance of a faculty mentor of the student's choosing leading to a master's thesis or doctoral dissertation. This course is structured so that Masters and Doctoral students can focus on and perform literature research, identify mentors & research projects, and conduct thesis and dissertation research in the Department of

Genetics & Human Genetics. Because research is rarely completed in a single semester, this course may be taken repeatedly until the research is concluded and the thesis or dissertation judged to have passed. See note on page 577 related to research and dissertation hours.

Credits: 1-9

GENE-222: Biochemical and Molecular Genetics

This course provides academic credit for independent research. In most cases, the research conducted in this venue is research under the guidance of a faculty mentor of the student's choosing leading to a master's thesis or doctoral dissertation. This course is structured so that Masters and Doctoral students can focus on and perform literature research, identify mentors & research projects, and conduct thesis and dissertation research in the Department of Genetics & Human Genetics. Because research is rarely completed in a single semester, this course may be taken repeatedly until the research is concluded and the thesis or dissertation judged to have passed.
Credits: 4

GENE-223: Human Genetics I

The course is distributed over two semesters as Human Genetics I & II. This course offers a careful study of the conceptual terrain for the discipline to develop a working familiarity with many of the central concepts in contemporary human genetics, recognize the roles of technology and human values in shaping the central concepts, develop proficiency in analyzing models of heritable variation and corresponding phenotypic expression, and their distributions in pedigrees and populations, and to identify evidence for interactions between gene expressions and environment to yield phenotypes. The course format combines lecture, discussion, assigned readings to provide further content depth and breadth
Credits: 3

GENE-224: Human Genetics II

This course is a continuation of Human Genetics I. This course will cover a minimum of 30 multifactorial phenotypes (congenital malformations and late onset disorders). This course distinguishes and characterizes each of the models of inheritance as it pertains to relationships between genes and phenotype. It's designed to cover principles of multifactorial or polygenic models for estimating empiric recurrence probabilities, correlations between genetic and environmental factors of phenotypic value and heritabilities. One goal is to identify the spectrum of approaches currently envisioned for medical intervention in genetic disorders.
Credits: 3

GENE-233: Introduction to Research

This course is required for all Master's and Ph.D. students in the first year. The course is designed for development of a hypothetical research project and writing of a detailed research proposal as a semester-long exercise. The course objective is to acquaint the student with a multitude of issues that bear on the successful conduct of independent research which include; understanding how to conduct literature searches, development of a hypothesis, identification of specific aims that will test the hypothesis, experimental design using principles of the scientific method, preparation and presentation of a written research proposal. This exercise will prepare the student for developing a thesis or dissertation proposal.
Credits: 3

GENE-236: Gene Structure and Action

This course explores the molecular process by which the synthesis, expression, and manipulation of genetic material is organized in chromatin and in cis-acting elements governing the process of the 'central dogma'. It will include a critical review of gene organization, regulation of gene expression by hormones, growth factors, and oxidant stress emphasizing signal transduction pathways and the action of ligand-receptor mediated transcription regulators. Attention will be paid to regulation of gene expression, transcription, and translation by RNA interference and natural & synthetic xenobiotics. The goal of this course os to understand the nature and function of gene expression in proliferation, differentiation, and apoptosis in development and disease.
Credits: 3

GENE-310: Seminar in Genetics

This course is offered each semester and current residents are invited to register continuously. Course format involves student participation in group discussion and article presentation each class period. The course is designed to focus on acquiring familiarity with current research in basic, clinical, and translational genetic disorders presented in various peer reviewed journals. The format promotes developing skillsets for; gathering, organizing, validating, and interpreting data of peer reviewed articles in molecular, biochemical, clinical, and population genetics. Students will develop the knowledge base to identify and compare the quality of molecular techniques and analytical tools used to perform research. The goal is to acquire skills to employ information from peered reviewed publications as a guide to understanding molecular evolution and forming individual research hypothesis.

Credits: 2

GENE-315: Cancer Genetics

This advanced elective course focuses on the genetics of cancer, specifically clinical aspects of cancer. Course format follows two hours of didactic lectures with one hour of an active learning component, bioinformatics and labs. This course will provoke dialogue by engaging class participation in questions & answers, as well as targeted discussions of information on the lecture topic gathered from other resources. The course is designed as a valuable resource for mainly graduate and health professional trainees, with interests in genetics and clinical cancer genetics. This course serves as a prerequisite to Cancer Genetics II: Molecular Aspects of Cancer.

Credits: 3

GENE-411: Medical Genetics

This course introduces students to the clinical aspect of a broad range of human genetic disorders, focusing on phenotypic characteristics, current confirmatory diagnostic techniques for each disorder, and approaches to interventions in terms of either prevention of occurrence, reduced morbidity, or achieving improved coping with disease. The course is designed to develop a students ability to construct pedigrees and to interpret modes of inheritance. Course formats consists lectures organized in a case study format such that an integration of all components of phenotype can be understood in relation to rationale for diagnostic methodology, and relevant intervention approaches. Students perform assigned reading, on-line searches on genetic diseases.

Credits: 3

GENE-412: Mutation in Human Gene

This course is structured for research ideas and current advances in genetic and biochemical alterations as a tool for clinical and translation research. This entails an integration of current events and data into the learning modality that utilizes current peer reviewed journal articles. This course focuses on using the substantial array of literature and bioinformatics to develop skills for analyzing data and addressing concepts of interpretation of data. Current peer reviewed publications are the materials used to generate an active learning education that supports group teaching, individual communication, and development of analytic skills. Course format is seminar based where students will present a 2-3 page written summary on the topic covering the molecular lesion, biochemical pathology, and a specific clinical disease associated with the genetic mutation of topic.

Credits: 3

Grad Preparing Future Faculty

GPFF-403: Technologies in Teaching and Learning

This course is designed for students who desire to understand new approaches to the effective use of instructional technology in their teaching practices. The course provides participants with a foundation for choosing appropriate technological tools based on learning needs; gives participants hands-on experience, through class sessions and projects, in the effective use of learning technologies such as interactive web application, video/audio lectures, clickers and various course management tools; and promotes the importance and scholarship of the evaluation of instructional technology efficacy.
Credits: 3

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-404: Faculty Roles & Responsibilities

This course provides future members of the professoriate with information and experiences that will improve their ability to obtain new faculty positions. The course includes presentations and guided lessons by faculty, administrators, and experts in fields necessary to facilitate success in the professoriate.
Credits: 3

Prerequisites:

This course is open to all students enrolled the Certificate in College and University Teaching offered by the Graduate School.

GPFF-405: Professional Internship

Intensive field experience in a supervised setting, emphasizing research, clinical practice, or college teaching
Credits: 3

GPFF-407: Diversity in The College Classroom

This course is designed to enhance students' knowledge and understanding of diversity and the ways that diversity affects both teaching and learning in the college classroom. The course examines how individuals' thoughts, feelings, and behaviors are intertwined with their diverse social environments and will explore how social categories are tools that individuals (faculty and students) use to view and evaluation other people.
Credits: 3

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-409: How to Be an Effective Mentor

Students will develop a deep understanding on effective mentoring by examining relevant literature. Students will develop their personal mentoring philosophy, learn how to articulate that philosophy across a variety of disciplines and refine strategies for dealing with mentoring challenges.
Credits: 1

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed(or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-410: Teaching Through Inquiry Based Learning

In this course participants increase their knowledge of pedagogical approaches that foster the scientific method as a best practice in teaching and learning. In this investigative approach, participants, are presented with a problem, and solutions are derived by asking questions, hypothesizing answers, testing the answers which will serve to confirm or negate the hypothesis.

Credits: 1

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-411: The College Classroom

This course provides an introduction to key learning principles and the basics of effective teaching practices in this course about teaching in the STEM college classroom. Students will explore how people learn, discuss how to monitor and investigate the effectiveness of the learning environment, learn what it means to create an inclusive classroom environment that engages all learners, and utilize backward design to develop a microteaching project. An emphasis on a learning-centered classroom will provide students with a perspective that highlights the interconnected cycle of teaching, assessment, and learning such that they gain the knowledge and skills to be effective teachers in the college classroom.

Credits: 2

GPFF-501: Preparing Future STEM Faculty

An Introduction to Evidence-Based Undergraduate STEM Teaching is designed to provide graduate students, postdoctoral scholars, and other aspiring faculty in STEM disciplines with an overview of effective college teaching strategies and the research that supports them. This course is also suitable for other interested university staff, faculty, and administrators. The Course is designed to equip the next generation of faculty to be effective teachers, thus improving the learning experience for the thousands of students they will teach. Past participants are overwhelmingly satisfied with the course The course draws on the expertise of a variety of STEM faculty, educational researchers, and staff from university teaching centers, many of them affiliated with the CIRTL Network. Topics include key learning principles, such as the role of mental models in learning and the importance of practice and feedback; fundamental elements of course design, including the development of learning objectives and assessments of learning aligned with those objectives; and teaching strategies for fostering active learning and inclusive classroom environments. Formats include video content and transcripts, readings, discussion forums, quizzes, and peer-graded assignments where participants will plan teaching and learning activities relevant to their disciplines.

Credits: 3

GPFF-502: Small Group Collaborative Learning

This course offers an introduction to small-group collaborative learnings based on the model used in the College Workshop Program at the University of Rochester. The course is designed as a discussion seminar run on your steam: You will proceed through the introduction work yourself, according to your own schedule. However, you are strongly encouraged to work as a team on all assigned projects. Deep learning does not take place, in literature reviews, but rather it occurs when you bring ideas and knowledge back to the group for discussion and debate.

Credits: 1

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities

Course.

GPFF-503: Flipping a New Generation

Flipping the Classroom is quickly becoming a popular pedagogical approach in the STEM disciplines. This course will explore many aspects of flipping the classroom by actually utilizing a flipped model with participants. Upon completion of this course, student participants will 1) understand the value of this pedagogical approach 2) understand the general structure of a flipped classroom 3) become familiar with the different technological approaches to flipping courses 4) become familiar with the literature of how flipping can help to improve student learning outcomes and 5) learn how to flip a STEM class.

Credits: 1

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-504: What Best Teachers Do

This theoretical framework for this course centers on issues raised by Ken Bain in his book, " What Best College Teachers Do." Bain interviewed a select group of college faculty and inquired about their teaching and learning practices. Each chapter centers on an important element of effective teaching and this course uses, as a point of departure to discuss these issues more comprehensively and in a college context. The driving philosophy of this course is that our teaching practice is a continual pursuit that involves finding new ways to engage students in our disciplines and improve learning outcomes. This process requires reading and reflection as well as discussions with peers and experts.

Credits: 1

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-505: Using Debate to Teach Science

This course provides future faculty with the knowledge and skills on the use of debate as a pedagogical tool for communicating challenging scientific concepts in the college classroom. Students will have the opportunity to explore how this pedagogical approach can increase student involvement in the learning process as well as fostering critical thinking, and research skills.

Credits: 1

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-506: Experimental New Techniques for Active Learning

Active learning is any approach to instruction in which all students are asked to engage in the learning process. Active learning stands in contrast to "traditional" modes of instruction in which students are passive recipients of knowledge from an expert. This course provides students with simple strategies that combine active learning principles with online tools so students can encounter and engage with information and ideas and reflect on their learning. These strategies apply to both small and large class sizes.
Credits: 1

Prerequisites:

Students should have completed their disciplinary coursework or obtain permission of their disciplinary advisor to register for this course; be enrolled in the Certificate in College and University Teaching offered by the Graduate School; and completed (or in the process of completing) the Faculty Roles and Responsibilities Course.

GPFF-507: Understanding and Implementing Scholarly Activities

This course focuses on helping students identify ways to integrate research, creative and scholarly activities into the different disciplines as an approach to engage motivated students. It explores best practices for cultivating and supporting a research-focused curriculum, involving inquiry based learning and hands-on learning to improve students' ability to problem-solve, work in multi-disciplinary teams, expose them to ethics in research and information literacy, and provide practical opportunities to apply written and oral communication skills and discipline specific techniques and competencies.
Credits: 2

GPFF-509: Basic of Online Teaching and Learning

This online blended course walks students through online course development in a mix of synchronous and asynchronous activities. The course will begin with synchronous online sessions providing an overview of the course and effective online pedagogy. This will be followed by a mix of synchronous and asynchronous sessions on building a course. Each week will involve approximately 4-6 hours of readings, videos, assignments, discussions, and peer feedback. During this time students will work on their final projects where they will develop materials for an online course (or unit) they plan to teach in the future. The course will end with 1 week of student micro-teaching presentations to the group.
Credits: 3

GPFF-601: Culturally Responsive Pedagogy and Assessment

This Course is designed to increase faculty cultural knowledge, competence and abilities to engage in culturally responsive teaching and assessment. Topics to be covered will include but not limited to culture, diversity, bias literacy, microaggression, school climate, and inclusion.
Credits: 3

GPFF-602: Learning Centered Community College

This course focuses on the organizational culture, pedagogical practices, institutional priorities, and curriculum--content, design, and delivery at community colleges
Credits: 3

GPFF-603: How to Mentor Graduate Students

The academic and professional success of underrepresented minority students has been strongly linked to mentorship. This course is designed to increase the importance and knowledge of culturally responsive mentoring in future faculty Course participants will be introduced to best practices in mentoring graduate students, within the context of teaching, research and professional development. This course will also have an experiential component, each registrant in the Course will be assigned a mentee and the mentorship skills will be evaluated by the mentee.

Credits: 3

Graduate Nursing Core Courses

NURC-501: Interdisciplinary Health Care Ethics

This interprofessional ethics course involves teaching of rudimentary knowledge and skills in ethical theory and reasoning, professional ethics, interprofessional approach to health care decision-making, goals of health care, illness experience, and other topics of concern.
Credits: 2

NURC-502: Nursing Research: Theory and Practice

This course examines the theoretical and conceptual bases of nursing to encourage the student to critique, evaluate and utilize appropriate nursing theory within their own practice. Focus will be on a variety of theories from nursing.
Credits: 4

NURC-504: Health Care Policy

This course presents an introduction to health policy, i.e., the various ways in which the government plays a role in health and in the provision of health care. Health policies can have a profound effect on quality of life. Accessibility, cost, quality of health care; safety of food, water, and environment; the right to make decisions about our health; these issues are vitally tied to health policies.
Credits: 2

NURC-509: Cultural Diversity and Social Issues

This course considers issues of human diversity broadly defined to include race, ethnicity, culture, nationality, religion, sexual orientation, gender identity, and ability. Students will explore the contours of difference and the dynamics of diversity, privilege, and oppression in domestic and global contexts.
Credits: 2

NURC-511: Advanced Pathophysiology

Describes disordered physiology and clinical consequences of common disease processes. Analyses of the biophysical rationale are used during seminar, problem-solving exercises and case studies to recognize the pathophysiologic bases of clinical findings.
Credits: 3

NURC-512: Theoretical Foundation for Advanced Practice Nursing

This course focuses on the philosophical and theoretical bases underlying concepts and operations inherent to nursing. Synthesis of theories from behavioral, natural, social, and applied sciences is emphasized as it relates to nursing and practice.
Credits: 2

NURC-513: Culturally Congruent Care - Clinical Health Profession

This course will explore and reflect on the culture of western medicine into which students are being socialized. Students will explore the values they bring into the profession and how these values influence their personal and professional lives, including responses to diverse patient cultures.
Credits: 3

NURC-605: Thesis

Thesis guidance for M.A. students.
Credits: 2

NURC-606: Research Practicum

Activities related to active research under supervision by a faculty member. Two 1-credit courses are required

for the doctoral qualifying examination.
Credits: 2

Graduate Nursing Electives

NURE-502: Independent Study

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 1

NURE-611: Grief and Loss: A Family Perspective

This course is designed to acquaint the student with a richer understanding of loss through the life span. Loss as discussed in class will include not only the realized separations that occur through death but also those psychological, physical and situational changes that occur throughout life and affect us all.
Credits: 2

NURE-700: Teaching and Learning in Nursing Education

This course introduces students to major theoretical perspectives on nursing education/practice/research and how this body of knowledge can be used to guide policies and practices in nursing education to promote student learning and development, nursing research, and ultimately nursing practice.
Credits: 2

NURE-701: Curriculum and Instruction in Nursing Education

Includes philosophical values, educational concepts, and theories of learning used to link nursing education to standards of nursing practice. Guides students to develop curriculum plans and propose related teaching and evaluation strategies.
Credits: 3

NURE-702: Measurement and Evaluation in Nursing Education

Assessment of theories and strategies of measurement and evaluation as they apply to nursing education. Combines theories of measurement and evaluation with outcomes-based approaches to promote safe effective professional nursing practice. Experiential exercises in the development, use, and critique of measurement and evaluation methods to classroom and clinical learning situations as well as to nursing education program evaluation.
Credits: 3

NURE-703: Clinical Role Specialty for the Nurse Educator

Capstone clinical in a specialty focusing on critical examination, synthesis, and evaluation of professional nursing care. Client populations include individuals and/or groups reflecting diverse settings, ages, and ethnic communities. Emphasis on mastering theoretical concepts, applying theory and research findings, improving skill competency, and developing leadership capabilities in the clinical setting.
Credits: 2

NURE-704: Clinical Role Practicum for the Nurse Educator

This course is a continuation of prior nursing courses. Students will participate in clinical practicum experiences which provide opportunities to further develop competencies in patient-centered care, teamwork and collaboration, safety, quality, informatics, and evidence-based practice.
Credits: 2

NURE-705: Role Development as a Nurse Educator

In this course, students will examine the role of the nurse educator in relation to broader perspectives of selected higher education and/or health care agencies. Further, students will implement aspects of the nurse educator role in selected academic units, institutions, and in the profession of nursing.

Credits: 2

NURE-706: Nurse Educator Practicum

This course is an exploration of the nurse educator role in structuring teaching strategies that assure effective individual and group learning, safe clinical practice, and a commitment to lifelong learning. Nurse educator practicum placements are arranged within pre-licensure nursing education programs.
Credits: 2

Graduate Nutritional Science

NUTG-208: Nutrition in Aging

Students will develop a basic understanding of nutritional concerns of older persons, be introduced to some of the biological changes of the body during the aging process, recognize dietary practices and nutritional needs specific to older individuals, and practice skills needed to develop and lead interventions with older adults. This one credit course is designed to introduce students to the knowledge and skills needed by dietitians and health practitioners to promote successful aging and minimize disease impact in the second half of life.
Credits: 2

NUTG-284: Community Nutrition

This course is a discussion of the principles and programs developed to improve the dietary intake and the nutritional status of individuals and groups within a community.
Credits: 3

NUTG-301: Thesis in NS

Thesis guidance for M.A. students.
Credits: 3

NUTG-302: Thesis in NS

Thesis guidance for M.A. students.
Credits: 1

NUTG-310: Grad Sem Nutrition

This course is designed to address the intellectual growth needs of students at the advanced or senior level
Credits: 1-4

NUTG-311: Carbohydrate & Energy Metabolism

This course will give you a clear introduction to the basic fundamentals of energy metabolism. The subject matter of the course will be relevant to nutrition and determined by the faculty of record.
Credits: 2

NUTG-312: Proteins

This course covers assay and purification of enzymes and other proteins. Chemical modification, site-directed mutagenesis, and enzyme kinetics as tools in understanding structure-function relationships and enzyme mechanisms will also be covered.
Credits: 3

NUTG-313: Lipids

This course aims to help students develop an understanding of the chemistry of lipids, the unique structural and associative properties of lipid molecules which distinguishes them as a class and forms the basis for an understanding of the nutritional biochemistry which describes and seeks to predict the physical and biological functions of lipids in living tissues.
Credits: 3

NUTG-314: Vitamins

This course examines the metabolism of vitamins and minerals in the context of human development from infancy, childhood, adolescence, adulthood, reproduction and through to aging
Credits: 3

NUTG-315: Minerals

This course provides an in-depth introduction to vitamin and mineral metabolism with particular emphasis on nutrient bioavailability and absorption, transport and tissue accumulation, regulation of nutrient metabolism and homeostasis, and nutrient function.
Credits: 3

NUTG-316: Evaluation of Nutrition Status

The course aims at giving the student the scientific knowledge to assess the nutritional status of the community and hospitalized patients. Students will gain an understanding of dietary, biochemical, anthropometric and clinical determinants used in the assessment of individuals and groups.
Credits: 3

NUTG-318: Techniques in Community Nutrition

Study of theory, concepts and philosophy affecting nutrition education and services in the community.
Credits: 2

NUTG-401: Res in Nutrition

This course emphasizes skills in the conduct and interpretation of research. Emphasis given to study design, instrumentation, analysis, and ethical issues.
Credits: 3

NUTG-402: Res in Nutrition

This course emphasizes skills in the conduct and interpretation of research. Emphasis given to study design, instrumentation, analysis, and ethical issues.
Credits: 1

NUTG-404: PhD Dissertation

Dissertation guidance for doctoral students.
Credits: 3

NUTG-405: PhD Dissertation

Dissertation guidance for doctoral students.
Credits: 6

NUTG-501: Global Health and Nutrition

Course topics include an overview of global and US public health nutrition goals, malnutrition around the globe, nutrition surveillance systems and interventions, practices and processes of local and global food markets, global food systems and legislative and regulatory policies.
Credits: 3

NUTG-503: Nutrition Policy

For the purpose of this course nutrition and food policy is viewed as a specific set of decisions with related actions, established by a government and often supported by special legislation, which address a nutrition or food problem or set of problems.
Credits: 3

NUTG-540: International Nutrition

Presents major nutritional problems that influence the health, survival, and developmental capacity of populations in developing societies. Covers approaches implemented at the household, community, national, and international levels to improve nutritional status.
Credits: 3

Graduate Primary Family Health

NURP-601: Pharmacotherapeutics

This course provides the opportunity to acquire advanced knowledge and skills in the therapeutic use of pharmacologic agents. The pharmacologic treatment of major health problems will be explored. Principles of pharmacokinetics, pharmacodynamics and pharmacogenomics will be examined.
Credits: 3

NURP-605: Advanced Health Assessment

It focuses on the skills of assessment necessary in advanced nursing practice. The course provides opportunities for you to perform comprehensive and problem-specific psychosocial, developmental, cultural, and physical assessments in establishing client-centered databases.
Credits: 3

NURP-606: Family Primary Care of Children and Adolescents & Practicum

This course focuses on applying nursing principles in promotion, maintenance and restoration of health for infants, children and their families. Health issues and nursing concerns of children will be studied with emphasis on developmental stages, family processes, health promotion practices, and social, cultural and spiritual influences.
Credits: 4

NURP-607: Family Primary Care of Women & Practicum

This course focuses on the promotion, maintenance, and restoration of health for women during the childbearing years, their newborns, and their families. Through the use of a multi-sectoral approach, and with an emphasis on equitable distribution and appropriate technology, it relates physiological, environmental, cultural, and behavioral factors and issues that impact on the reproductive woman and childbearing.
Credits: 4

NURP-608: Family Primary Care of Adults & Practicum

This course emphasizes core competencies of managing care in emergent and acute care patients, clinical decision making, collaboration, teaching/learning, professional behavior, and legal/ethical aspects of care.
Credits: 5

NURP-609: Family Primary Care of Older Adults & Practicum

This course addresses strategies for the non-pharmacologic management of challenging behaviors of older adults with dementia. The course is designed for advanced practice registered nurses/students, and members of the healthcare team with an interest in the care of older adults. NURS-605 course requires a case study of a client with dementia and behavioral problems.
Credits: 5

NURR-610: Family Primary Nurse Practitioner Role Seminar Practicum

A primary care nurse practitioner will assess a patient's health, administer preventive care, and help to treat and manage general conditions. They will refer patients to a specialist if a more serious condition is discovered.
Credits: 5

Guitar

MUSO-100: Guitar Instruction

Private lessons to non-music major. Course can be repeated.
Credits: 1

Prerequisites:

Permission of instructor required.

MUSO-105: Non-Major Guitar Class

Group instruction for non-music majors in music fundamentals, basic playing techniques, and repertoire of popular and classical music.
Credits: 1

Prerequisites:

Student must supply own guitar.

MUSO-111: Guitar Minor

Open position major and minor scales, arpeggi, and chords; slurs and left hand development exercises; etudes and solos in various styles.
Credits: 2

MUSO-112: Guitar Minor

Open position major and minor scales, arpeggi, and chords; slurs and left hand development exercises; etudes and solos in various styles.
Credits: 2

MUSO-121: Guitar Minor

Continuation of MUSO-111, 112 with moveable altered scales, arpeggi, and chord forms.
Credits: 2

Prerequisites:

MUSO-111, 112 or consent of instructor.

MUSO-122: Guitar Minor

Continuation of MUSO-111, 112 with moveable altered scales, arpeggi, and chord forms.
Credits: 2

Prerequisites:

MUSO-111, 112 or consent of instructor.

MUSO-131: Guitar Minor
Continuation of MUSO-121, 122.
Credits: 2

Prerequisites:

MUSO-121, 122, or consent of instructor.

MUSO-132: Guitar Minor
Continuation of MUSO-121, 122.
Credits: 2

Prerequisites:

MUSO-121, 122, or consent of instructor.

MUSO-141: Guitar Minor

Continuation of MUSO-131, 132 with preparation for graduating recital.
Credits: 2

Prerequisites:

MUSO-131, 132 or permission of instructor.

MUSO-142: Guitar Minor

Continuation of MUSO-131, 132 with preparation for graduating recital.
Credits: 2

Prerequisites:

MUSO-131, 132 or permission of instructor.

MUSO-211: Guitar Major

Scales, arpeggios, and chord forms; slurs and left hand development exercises; etudes and solos in various styles.
Credits: 4

MUSO-212: Guitar Major

Scales, arpeggios, and chord forms; slurs and left hand development exercises; etudes and solos in various styles.
Credits: 4

MUSO-221: Guitar Major

Continuation of MUSO-211, 212 with addition of ensemble works utilizing accompaniment techniques and preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSO-211, 212 or consent of instructor.

MUSO-222: Guitar Major

Continuation of MUSO-211, 212 with addition of ensemble works utilizing accompaniment techniques and preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSO-211, 212 or consent of instructor.

MUSO-231: Guitar Major

Continuation of MUSO-221, 222 with addition of mixed ensemble works in which guitar is featured.
Credits: 4

Prerequisites:

MUSO-221, 222 or consent of instructor.

MUSO-232: Guitar Major

Continuation of MUSO-221, 222 with addition of mixed ensemble works in which guitar is featured.
Credits: 4

Prerequisites:

MUSO-221, 222 or consent of instructor.

MUSO-241: Guitar Major

Continuation of MUSO-231, 232 with addition of a guitar concerto and preparation for the senior recital.
Credits: 4

Prerequisites:

MUSO-231, 232 or consent of instructor.

MUSO-242: Guitar Major

Continuation of MUSO-231, 232 with addition of a guitar concerto and preparation for the senior recital.
Credits: 4

Prerequisites:

MUSO-231, 232 or consent of instructor.

MUSO-301: Graduate Guitar Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSO-302: Graduate Guitar Minor II

A continuation of MUSO-301. This course builds upon guitar performance techniques.
Credits: 3

MUSO-303: Graduate Guitar Minor III

A continuation of MUSO-302. This course builds upon guitar performance techniques.
Credits: 3

MUSO-304: Graduate Guitar Minor IV

A continuation of MUSO-303. This course builds upon guitar performance techniques.
Credits: 3

MUSO-311: Graduate Guitar Major I

Private instruction in performance for graduate students.
Credits: 5

MUSO-312: Graduate Guitar Major II

Private instruction in performance for graduate students.
Credits: 5

MUSO-321: Graduate Guitar Major III

Private instruction in performance for graduate students.
Credits: 5

MUSO-322: Graduate Guitar Major IV

Private instruction in performance for graduate students.
Credits: 5

Guitar Ensemble

MUTF-301: Guitar Ensemble

Students will be assigned with guitar ensemble works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.
Credits: 1

MUTF-302: Guitar Ensemble II

A continuation of MUTE-131. Weekly coaching and rehearsals in guitar ensembles.
Credits: 1

Harp

MUTR-100: Harp Instruction. Private lessons for non-music majors

Permission of coordinator/instructor.
Credits: 1

MUTR-111: Harp Minor

Consists of major and minor scales and arpeggios, tonal production, and etudes and solos in all styles.
Credits: 2

MUTR-112: Harp Minor

Consists of major and minor scales and arpeggios, tonal production, and etudes and solos in all styles.
Credits: 2

MUTR-121: Harp Minor
Continuation of MUTR-111, 112.
Credits: 2

Prerequisites:

MUTR-111, 121, or consent of instructor.

MUTR-122: Harp Minor
Continuation of MUTR-111, 112.
Credits: 2

Prerequisites:

MUTR-111, 121, or consent of instructor.

MUTR-131: Harp Minor
Continuation of MUTR-121, 122.
Credits: 2

Prerequisites:

MUTR-121, 122, or consent of instructor.

MUTR-135: Harp Minor
Continuation of MUTR-121, 122.
Credits: 2

Prerequisites:

MUTR-121, 122, or consent of instructor.

MUTR-141: Harp Minor

Continuation of MUTR-131, 132. Preparation for senior recital.
Credits: 2

Prerequisites:

MUTR-131, 132, or consent of instructor.

MUTR-142: Harp Minor

Continuation of MUTR-131, 132. Preparation for senior recital.
Credits: 2

Prerequisites:

MUTR-131, 132, or consent of instructor.

MUTR-301: Graduate Harp Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your

dexterity and playing abilities.
Credits: 3

MUTR-302: Graduate Harp Minor II

A continuation of MUTR-301. This course builds upon Harp performance techniques.
Credits: 3

MUTR-303: Graduate Harp Minor III

A continuation of MUTR-302. This course builds upon Harp performance techniques.
Credits: 3

MUTR-304: Graduate Harp Minor IV

A continuation of MUTR-303. This course builds upon Harp performance techniques.
Credits: 3

MUTR-311: Graduate Harp Major I

Private instruction in performance for graduate students.
Credits: 5

MUTR-312: Graduate Harp Major II

Private instruction in performance for graduate students.
Credits: 5

MUTR-321: Graduate Harp Major III

Private instruction in performance for graduate students.
Credits: 5

MUTR-322: Graduate Harp Major IV

Private instruction in performance for graduate students.
Credits: 5

Health Management

HLMN-506: Intro to Epidemiology

In this introductory course, students will learn and apply basic concepts of epidemiology to multiple domains of public health. We will illustrate and practice using epidemiology to better understand, characterize, and promote health at a population level.
Credits: 3

Histopathology

HISP-216: Oral Pathology I

This course will feature the study of diseases of the oral region with an emphasis on clinical appearance and oral manifestation of epithelial diseases and soft tissue diseases. The definition, clinical and histologic features, treatment, and prognosis of selected disease entities are presented in a didactic manner.
Credits: 2

HISP-322: Oral Pathology II

This course will introduce the study of diseases of the oral mucosa with an emphasis on clinical appearance. The definition, clinical and histologic features, treatment, and prognosis of selected disease entities will be presented in a didactic manner. Diseases of the oral and facial region will be presented and the discussion of the clinical and histological basis of disease classification, development of the differential diagnosis, biomedical implications, and treatment and prognosis within the context of health disparities.
Credits: 1

HISP-324: Oral Pathology III

This course will feature the study of diseases of the oral region with an emphasis on clinical appearance and oral manifestation of systemic diseases with particular focus on diseases likely encountered in general dental practice, those that are rare but serious, and those that are unique to the jaws. The definition, diagnosis, clinical and histologic features, treatment, and prognosis of selected disease entities are presented in a didactic manner.
Credits: 1

HISP-327: Intro to Clinical and Translational Research

This course will feature the basics of research methodologies. Student will utilize developed skills to draw on resources for the application of ethical decision making as it pertains to research. The processes of critically appraise and its application, will be used to evaluate scientific and lay literature as it relates to providing evidence-based patient care. Participants will use critical thinking and problem-solving skills in employing research methods. Students will be exposed to career information and guidance for research opportunities. Finally, students will be able to understand research in the context of health disparities.
Credits: 3

Historical Studies

HISU-211: American Religious History

This course offers a broad survey of the role of religion in American ... diversity and the complexities of American religious life.
Credits: 3

HISU-220: HIstory of Black Church

The purpose is to enrich personal faith and prepare persons for informed and competent leadership in behalf of God's mission of liberation for all peoples. Additionally, this course is designed to unearth key historical events, persons, and moments in American religious life.
Credits: 3

HISU-240: Islam and the African American Experience

This course will examine the experiences of indigenous and immigrant American Muslims. The course will explore the history of Islam in America. Attention will be given to the interaction between the shared Islamic identity and the distinctive local expressions of Muslim faith and life. Political, legal, social, artistic, and cultural dimensions of American Muslim experience will be analyzed.
Credits: 3

HISU-248: Islam Juris & Am Constitution

The goal of the course is to equip students with a deeper understanding of Islamic law in historical and contemporary forms. It is designed to give students a firm grounding in the principles, concepts and terminology of Islamic law and enhances team effectiveness as well as hands-on-experiences. This includes a critical analysis of the legal history, jurisprudential development, and the schools of Islamic law, evolution of the law up to the present, and its contemporary applications. Case studies relate to family, commercial, criminal law and other key issues of social responsibility will be examined. Guest speakers including judges, Professors of law and lawyers will be invited to explain important principles and concepts of the American constitution and beyond. No previous familiarity with the field is necessary and there are no course prerequisites. All readings will be in English. The instructional method combines lecture-discussion with actual case studies, guest speaker, attending events, site visitation, multimedia instruction and interactive student presentations.
Credits: 3

HISU-260: Islam & African American Experience

The course will examine the history of Islam in America with the focus on African American experience. An interdisciplinary introduction to the basic concepts and literature in the disciplines covered by African-American studies. The course will provide critical analysis of historical, religious, political, social, and economic forces in shaping cultural expression. Attention will be given to the interaction between the shared Islamic identity and the distinctive local expressions of Muslim faith and life. Assessment of contemporary African American Muslim community in terms of its institutions, style of life, patterns of work and intergroup relations will be explored. The course provides the students with an opportunity to understand the main challenges Black community faced since slavery times to present. Students also examine how the overlap of race-class-gender identities create diverse notions of American Muslim experience. Upon the end of the course work, students will design an event that illustrate the contribution of African American communities to humanity.
Credits: 3

HISU-315: Women, Gender & Family in Islam

This is a foundational course in an emerging interdisciplinary field that takes Muslim Women' Studies for its focus. The course defines a conceptual framework for examining social questions through engaging the Qur'an as the transcendent record of revealed guidance and the Prophetic model in a moral economy postulating creation, justice, freedom and responsibility. Students will explore the women question, feminist and womanist, gender and family structure in a framework that integrates empirical and normative perspectives. Students will analyze teachings and practices of the contemporary debate on women in Islam by surfacing specific issues such as family structure, marriage, divorce, wealth and poverty; woman and modern war, slavery and sex trafficking; sexuality and spirituality; education; and social justice. Students will compare and contrast between different women's trends and movements in the modern world with special attention on African-American women movements and activism. Students will develop together a document that envisions the future of women, children and family.
Credits: 3

HISU-317: Ethics & Prophetic Tradition in Islam

The subject of ethics essentially comprises a twofold objective, it evaluates human practices by calling upon moral standards, and also it gives prescriptive guidance on how to act morally in a given situation. Islamic ethical values and moral concepts are both universal and specific. This course will explore the great emphasis in Islam on ethical aspects of human conduct derived from the Quranic and Prophetic tradition/Sunna, hadith and suc0u299 ra. This course will examine the Islamic moral and ethical system where the principles of Islamic law is linked to the exemplary conduct of all the prophets, especially Prophet Muhammad, in a manner that is appropriate to an actual ethical case. Students will analyze issues from Islamic perspective, such as wealth and poverty, war and peace, race, gender and sexuality, medical and environmental ethics, family and social justice. Universal Ethics will be explored and analyzed. At the end of this course, students will work together to develop a declaration of Universal Ethics in a diverse, yet unified for faith communities and institutions. A research component is also added to this course where the students read thoroughly and critically in order to arrive to a comprehensive conclusion. The instructional method combines lecture-discussion with actual case studies, guest speaker, attending events, multimedia instruction and interactive student presentations.
Credits: 3

HISU-336: Islam in Africa: History and Culture

African civilizations in the Mediterranean and sub-Saharan regions have shaped world history. This course is intended to introduce the student to the history of Africa from the emergence of Islam to the Present day. Students will critically examine how African civilization developed and interacted, with Islamic belief, values, principles and practices. Students will approach African history from a variety of perspectives that critically explore scholarly debates over African identities and contemporary development. The practice of Islam in the continent is not static and is constantly being reshaped by prevalent social, economic, and political conditions. Interdisciplinary exploration into the cultures and societies of West, East, North and South Africa will be explored. A research component is also added to this course where the students read thoroughly and critically in order to arrive to a comprehensive conclusion. The instructional method combines lecture-discussion, guest speaker, attending events, multimedia instruction and interactive student presentations.
Credits: 3

HISU-426: African Amer. Religious History

This course explores major topics in the history of African American religion. Our discussion topics will include: theology (liberal, evangelical, and fundamentalist), constructive development thought vs. compensatory thought, spirituality in sacred and secular music traditions, homiletics, the Independent African Church Movement, social ministry, the African American jeremiad, civil religion, Womanism, the Social Gospel Movement, the Civil Rights Movement, and the Prosperity Gospel Movement.
Credits: 3

HISU-430: Dialogue w/ Islam in Christian Society

This course introduces an internal view of the beliefs, practices, institutions, and history of Islam. This course explores the emergence and development of Islam as both a religion, a culture and civilization. The extensive course work and authentic hands-on methodologies fosters critical thinking, placing students at the forefront of current events and intriguing conversation within the Christian-Muslim community. It examines Islam's origins, historical development of its basic metaphysical, essential doctrines, and the present state of the Muslim modern world. The course fosters creative and authentic analysis to the economic, political and social challenges involving Muslims. The instructional method includes lecture, multimedia instruction, interactive student presentations, and group discussion. Dialoguing on how to establish a pluralistic community embracing the higher values is an important objective of this course. Upon the completion of the course, students will be trained to design, organize and facilitate a World Caf'e9 Dialogue, as part of the course curriculum.
Credits: 3

HISU-435: The Qur'an and Its Place in Muslim Life

The place of the Qur'an in the Muslims life is significant. The course will explore the Qur'an's role in Muslim culture and daily life, and how it provides a guide to its traditions and sources of interpretation. This course surveys the Qur'an and what it has to say about humanity and its purpose and history, ritual, virtues and ethics, women, gender, race, sexuality, family, and much more. Students will examine different traditional and contemporary methodologies in understanding the Qur'an. A research component is added to this course where the students will develop skills that enable them to deepen their understanding and allow them to analyze different modern critical issues. The instructional method combines lecture-discussion with actual case studies, guest speaker, attending events, multimedia instruction and interactive student presentations.
Credits: 3

HISU-495: Prophethood in the Bible and In the Qur'an

The proposed team taught course has an impressive syllabus with critical readings that would be of great benefit to the students as they become more informed about how the ancient concept and office of the Prophet had a great impact on shaping aspects of ancient and modern Civilizations. The course explores the identity, function, and legacy of the prophets in Islamic and Christian tradition. Much of our work in this course will involve a close comparative exploration of the way Bible and Qur'uc0u257 n render shared characters and narrative scenarios. We will compare, isolate, and analyze their similarities and differences with a view toward unpacking their broader significance. Prophets include but will not necessarily be limited to Adam, Noah, Abraham, Joseph, Moses, Elijah, Jesus, Mary, and Muhammad. Careful attention will also be given to the cultural issues surrounding the generation and promulgation of competing character profiles within kindred scriptures, as well as to the development of textuality as a marker of authority. This course is also considered the cornerstone of the field of interreligious studies and dialogue.
Credits: 3

History

HIST-174: Women in American Society to 1890

Analysis of the participation and changing status of women in American institutional and cultural life.
Credits: 3

HIST-175: Women in American Society since 1890

A continuation of HIST-176. Analysis of the participation and changing status of women in American institutional and cultural life.
Credits: 3

HIST-176: Afro-American History to the Civil War

Brief survey of the African background and the social, cultural, economic, and political activity of the black people in the United States.
Credits: 3

HIST-177: Afro-American History since the Civil War

A continuation of HIST-176. Brief survey of the African background and the social, cultural, economic, and political activity of the black people in the United States.
Credits: 3

HIST-200: Historiography

Required course for history majors which introduces historical theory, methodology and practice.
Credits: 3

HIST-203: Directed Reading in the Major Field

A one-on-one independent study at the graduate level, which the student arranges individually with a professor if the topic is not already covered in regularly offered courses.
Credits: 3

HIST-204: Directed Reading in the Major Field

A one-on-one independent study at the graduate level, which the student arranges individually with a professor if the topic is not already covered in regularly offered courses.
Credits: 3

HIST-211: US Foreign Relations to 1914

Exploration of the patterns and principles of American foreign relations as influenced by both domestic and international developments.

Credits: 3

HIST-212: US Foreign Relations since 1914

Treats the role of the United States as a world power and the socioeconomic and political forces and values underlying that role.
Credits: 3

HIST-219: US South to 1877

Depicts the emergence of the South as a distinctive region with special economic, political, and social interests.
Credits: 3

HIST-220: US South since 1877

Explores the economic, social, and political aspects of the South and its relation to the nation after the Civil War.
Credits: 3

HIST-221: Colonial America

Deals with the factors and problems of colonial settlement; imperial control; and the social, economic, and political growth of the colonies.
Credits: 3

HIST-223: Jacksonian Era, Reform, and Sectionalism

Treats the rise of nationalism, westward expansion, the changing economy, the emergence of sectionalism, and reform movements during the Jacksonian era.
Credits: 3

HIST-224: Civil War and Reconstruction

Study of the causes, leaders, and military campaigns of the Civil War and social, economic, and political developments from 1850 to 1877.
Credits: 3

HIST-226: US since World War I

Examination of the changing American social, political, economic, and cultural scene, with special emphasis on the impact of the progressive tradition since World War I.
Credits: 3

HIST-227: US Reform Movements

Examination of major social and political reforms in the United States to the present.
Credits: 3

HIST-247: African American Women in US History

Survey of the social, intellectual, economic, political, and cultural history of women in the U.S. from the colonial era to the present.
Credits: 3

HIST-300: MA Thesis Writing

The purpose of this course is for the design and performance of research leading to a Masters.
Credits: 3

HIST-301: MA Thesis Writing

The purpose of this course is for the design and performance of research leading to a Masters.
Credits: 3

HIST-309: Problems in US History to 1865

Presents the principal political, economic, social, and cultural developments in U.S. history from the American Revolution to the end of Reconstruction.

Credits: 3

HIST-310: Problems in US History since 1865

A continuation of HIST-309. Presents the principal political, economic, social, and cultural developments in U.S. history after the Civil War.
Credits: 3

HIST-312: Afro-American Social Institutions and Culture

Course provides an in-depth study and analysis of the institution of slavery as it developed in the United States. Particular focus will be placed on the institution from the perspective of the slaves themselves. Topics include the Atlantic Slave Trade, Origins of Slavery, Colonial Slave Systems, Proslavery Defense, Abolitionism, Slave Culture, Resistance, and Emancipation.
Credits: 3

HIST-318: Readings in US Foreign Relations to WWI

Exploration of the patterns and principles of American foreign relations as influenced by both domestic and international developments.
Credits: 3

HIST-319: Readings in US Foreign Relations since 1914

Treats the role of the United States as a world power and the socioeconomic and political forces and values underlying that role.
Credits: 3

HIST-324: Readings in Afro-American History I

Brief survey of the African background and the social, cultural, economic, and political activity of the black people in the United States.
Credits: 3

HIST-325: Readings in Afro-American History II

A continuation of HIST-324. Brief survey of the African background and the social, cultural, economic, and political activity of the black people in the United States.
Credits: 3

HIST-326: Readings in Selected Periods and Topics in US History I

Intensive readings of representative works in major fields of history.
Credits: 3

HIST-327: Readings in Selected Periods and Topics in US History II

A continuation of HIST-326. Intensive readings of representative works in major fields of history.
Credits: 3

HIST-328: District of Columbia History

Introduction to the major metropolitan questions, past and present, analyzing social and economic forces to physical changes. Selections from texts developed by scholarly and community-based literature.
Credits: 3

HIST-334: West Africs:Women

African women's history is rich and deeply layered. In this course, we will examine the social, political, economic, religious, and cultural experiences of women living in Africa. Although we will look at women in the pre-colonial and slave trade eras, most of our focus will be on women during the nineteenth and twentieth centuries. Much of our reading and discussion will consider not only women, but also gender as we think about women's interactions with men and children. This course is concerned with the historical forces shaping

African women's lives, as well as with the ways in which women have been active agents in the making of their own histories.

Credits: 3

HIST-347: Readings in Women in the Caribbean

The course focuses on the Anglophone and Francophone regions, and examines major works by representative women writers from Antigua, Dominica, Haiti, and Guadeloupe. The novel genre will be explored in depth. Our discussions will center on geopolitical and socio-historical issues, the oral/scribal polarity, the question of identity, race and gender, the African diaspora, colonialism, postcolonialism, the reclaiming of women's voices, the mother-daughter relationship, the significance of the spiritual realm, and the linguistic dilemma.
Credits: 3

HIST-381: Directed Reading in the Major Field

A one-on-one independent study at the graduate level, which the student arranges individually with a professor if the topic is not already covered in regularly offered courses. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-390: Directed Reading in the Major Field

A one-on-one independent study at the graduate level, which the student arranges individually with a professor if the topic is not already covered in regularly offered courses. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-391: Directed Reading in the Major Field

A one-on-one independent study at the graduate level, which the student arranges individually with a professor if the topic is not already covered in regularly offered courses. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-409: Seminar in US History to 1877

An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of US History to 1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-410: Seminar in US History since 1877

An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of US History since1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses. .
Credits: 3

HIST-411: Seminar in US History to 1877

A continuation of HIST-409. An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of US History to1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-412: Seminar in US History since 1877

A continuation of HIST-410. An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of US History since1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-413: Seminar in Afro-American History to 1877

An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of Afro-American History to 1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-414: Seminar in Afro-American History since 1877

An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of Afro-American History since 1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses. .
Credits: 3

HIST-415: Seminar in Afro-American History to 1877

A continuation of HIST-413. An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of Afro-American History to 1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-416: Seminar in Afro-American History since 1877

A continuation of HIST-414. An instructor-led course, usually credit-bearing, with a small number of students collectively exploring the course topic of Afro-American History since 1877. Lecture content will vary based on relevance to current events and topics of class interest. See note on page 577 related to Special Topics courses.
Credits: 3

HIST-420: Directed Reading in the Major Field

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course includes directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

HIST-500: PhD Dissertation

The purpose of this course is for the design and performance of research leading to a Ph.D
Credits: 3

HIST-501: PhD Dissertation

The purpose of this course is for the design and performance of research leading to a Ph.D
Credits: 3

HIST-510: Independent Research (Ph.D. Cand)

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

HIST-511: Independent Research (Ph.D. Cand)

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

HIST-512: Independent Research (Ph.D. Cand)

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.

Credits: 1

HIST-513: Independent Study (Ph.D. Cand)

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

HIST-514: Independent Study (Ph.D. Cand)

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

HIST-515: Independent Study (Ph.D. Cand)

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 9

HISU-205: History of Christianity Survey

The purpose of the course is to examine the broad contours of the global development of the Christian movement.
Credits: 3

Hlth Hmn Perform & Leisure

HHPL-385: Comm Org for Hlth

This course focuses on the fundamental components and principles of fitness, including competency in motor skills, movement patterns, and strategies needed to perform a variety of physical activities.
Credits: 3

Human Behavior & The Social Environment

SWHB-205: Human Behavior & Social Environment I

Examines human growth and development through the life cycle using biological, psychological, sociological, spiritual, and cultural perspectives. Gives an introduction to: the family, the social systems model, personality theories and ego defense mechanisms. Emphasizes the various stages of lifespan development and understanding of biopsychosocial factors on human adaptation from conception through death. Promotes an understanding of the Black Perspective and how this perspective informs human development and behavior. [Required for all students.]
Credits: 3

SWHB-207: Human Behavior & Social Environment II

Studies human behavior at the levels of small groups, the family, formal organizations, and communities. Explores a range of empirically-based theories and knowledge of how a biological, sociological, cultural, spiritual, and psychological system determines the health and well-being of individuals, groups, and other social units in the society. The social systems model is used to integrate this content with the individual-level development content from the HBSE I course. This course includes content on the strengths perspective, empowerment, and the Black perspective in order to help students to understand the ways in which social systems impact the well-being of human beings and other social systems.
Credits: 3

Prerequisites:

SWHB-205. [Required for all students.]

SWHB-302: Psychopathology

(Advanced course) Builds upon knowledge gained in Human Behavior in the Social Environment courses. Focuses on theoretical perspectives and clinical knowledge of clinical assessment and diagnoses of childhood and adult disorders. This is NOT a practice course with a focus on intervention. Emphasis is placed on the historical construct of mental health service delivery and the effect of racism on theory and classification as well as contemporary nosology with emphasis on the Diagnostic and Statistical Manual of Mental Disorders IV-revised and theoretical constructs to understand abnormal behavior from a biopsychosocial, culturally diverse viewpoint. [Advanced second year elective for Community, Administration and Policy Practice majors]
Credits: 3
Prerequisites:

SWDS-305 & SWFI-202.

SWHB-310: Human Sexuality

(Elective) Offers an introduction to selected, empirically based biological, sociological, cultural, psychological theories and research on human sexuality. Focuses on sexual development throughout the life span (childhood to old age) with consideration given to perspectives (historical and current) and treatment of sex and sexuality. Examines the relationship between human sexuality, physical and emotional disability, service delivery, societal attitudes and values, and the impact of discrimination, oppression and economic injustice.
Credits: 3

SWHB-330: Race, Class and Gender

(Elective) Explores race, class and gender as interrelated biological, social, psychological, historical and power-based constructs using social work values and ethics as undergirding principles. Examines theories and models of racial and multicultural identity and adaptation, and worldview formation. Focuses on feminism, male role studies, sexual identity, spirituality, diversity, cultural competency in relation to social policy and social justice.
Credits: 3

Human Development & Psycho-Edu

HUDE-200: Introduction to Educational Research

Examinees elementary principles involved in conducting educational and behavioral research.
Credits: 3

HUDE-201: Human Development

Covers the principles of growth and development, with the individual seen as an energy system having physiological and psychosocial aspects.
Credits: 3

HUDE-205: Introduction to Statistical Methods

Deals with descriptive and inferential techniques, including central tendency, variability, correlation, and tests based on sampling distributions.
Credits: 3

HUDE-206: History and System

The purpose of this course is to familiarize the student with the various methods of inquiry, terminologies, and theoretical systems that comprise the history of psychology. A broader view is used to introduce the modern era of psychology and its use. These include structuralism, functionalism, Gestalt, behaviorism, psychoanalysis, and phenomenological/existential approaches.
Credits: 3

HUDE-211: Brain and Behavior

The course will focus on psychological, biological, and evolutionary explanations of perception, cognition, and behavior.
Credits: 3

HUDE-220: Advanced Educational Psychology

Examines the social problems of the aged and their coping mechanisms.
Credits: 3

HUDE-222: Social Psychology of Individual

Discussion of educational and psychological theories and empirical research that are the bases of school psychology.
Credits: 2

HUDE-225: Advanced Measurement & Evaluation

Application of testing theory to measurement and evaluation with emphasis on group tests.
Credits: 3

HUDE-227: Personality and Social Psychology

Survey of major personality theories, with emphasis on life cycle and the development of an eclectic theory of the culturally different.
Credits: 3

HUDE-228: Personality Assessment

Involves the application of projective techniques to the assessment and evaluation of personality.
Credits: 3

HUDE-246: Professional, Ethical & Legal Issues in Clinical Practice

Review and discuss the basic theories, techniques, basic research and scholarly literature as related to the professional field of counseling.
Credits: 3

HUDE-300: Educational Research I

Thesis guidance for M.A. students. This course is charged tuition per credit hour. Students can take 1, 2, 3, or 4 credit hours each semester. The scheme suggests the total number of hours that can be used for degree requirements. See note on page 577 related to dissertation and research hours.
Credits: 1-3

HUDE-301: Educational Research II

Thesis guidance for M.A. students. This course is charged tuition per credit hour. Students can take 1, 2, or 3 credit hours each semester. The scheme suggests the total number of hours that can be used for degree requirements. See note on page 577 related to dissertation and research hours.

Credits: 1-3

HUDE-309: Ethical and Legal Issues in School Psychology

Review and discuss the basic theories, techniques, basic research and scholarly literature as related to the professional field of counseling.
Credits: 3

HUDE-320: Human Learning

General learning theory, with emphasis on research and issues in human learning, including verbal learning, conceptual learning, and memory.
Credits: 3

HUDE-322: Individual Assessment of Cognitive Abilities

Administration and interpretation of such individual tests the WISC-R and Stanford-Binet.
Credits: 3

HUDE-323: Studies in Child Development

Surveys the major theories, principles and research findings on achievement motivation in education.
Credits: 3

HUDE-325: Theories of Cognitive Development

This course is a survey of the broad field of cognitive development from the perspective of education and the learning sciences. Understanding cognitive development is essential for curriculum development, teacher preparation and professional development, effective instruction, and good education policy. While the course will focus mainly on readings from basic topics in cognitive development, discussion will assume that the student is interested in its educational applications. The course also expects students to have familiarity with basic concepts and issues in psychology and its related research methodologies.
Credits: 3

HUDE-327: Developmental Psychopathology

Focuses on the serious behavior disturbances of childhood in relationship to the child in an educational setting.
Credits: 3

HUDE-328: Problems in Educational Psychology

Offers an opportunity for advanced or specialized study of a selected problem with individual assistance.
Credits: 3

HUDE-330: Seminar in School Psychology

Treats professional issued and research on the performance of school psychologist as resource agents and consultants.
Credits: 3

HUDE-331: Seminar in Black Child Development

Investigate the social / personality / cognitive development of Black children and their socio-cultural differences.
Credits: 3

HUDE-333: School Psychology: Assessment

Application of principles of psychoeducational studies in school, clinics, colleges, and government settings.
Credits: 1-3

HUDE-340: Seminar in Counseling Psychology

Discusses background knowledge, issues, trends and problems of the counseling psychology profession
Credits: 3

HUDE-343: Group Counseling

Examines the nature and dynamics of group counseling and psychotherapy; provides a group practicum in the form of a growth group experience.
Credits: 3

HUDE-344: Practicum

Practical application of guidance and counseling theories and techniques in an institution.
Credits: 1

HUDE-351: Advanced Psychopathology

In this course, students engage in an in-depth examination of current theory and research associated with major psychological disorders and their diagnoses. ...Students engage in practical assignments, focusing on applications of the diagnostic criteria in terms of case conceptualization.
Credits: 3

HUDE-400: Intermediate Statistics

Study of inferential techniques including estimation, hypothesis testing, and regression analysis; selected computer concepts.
Credits: 3

HUDE-401: Evaluation Methodology

Involves use of specific models for educational programs and system evaluation, methods of providing data for formative evaluation, and goal validation.
Credits: 3

HUDE-403: Select Topics in Program Evaluation

The purpose of this course is to present students with an overview of basic approaches used to understand and assess public programs. The course will look at public program evaluation from a conceptual and analytical point of view and review the numerous ways of understanding and assessing program effectiveness.
Credits: 3

HUDE-404: Psychodiagnostics: Soc-Emotional-Behavioral Assessment

DSM-IV and Eligibility Decisions with Urban Youth - Training on the assessment of social-emotional disorders and other disorders of childhood.
Credits: 3

HUDE-420: Seminar in Learning and Cognition

Treats reinforcement theory, techniques in classroom management, and behavior modification.
Credits: 3

HUDE-421: Introduction to Applied Behavior Analysis

Treats reinforcement theory, techniques in classroom management, and behavior modification.
Credits: 3

HUDE-428: Personality Assessment II

Develops skills in advanced analysis and integration of data from the major personality assessment instruments including writing complete psychological reports.
Credits: 3

HUDE-429: Psychoeducational Assessment

Meets the professional training needs of graduate students in School Psychology

Credits: 3

HUDE-430: Consultation in School Psychology

Covers issues in the use and application of consultation theories and techniques in an educational setting.
Credits: 3

HUDE-432: Individual Assessment II

Advanced study of research on the techniques and reporting procedures for the psychological assessment of children.
Credits: 3

HUDE-433: Cog II: Culturally Competent Assessment

In this course, students will learn how to reflect on your own experiences, use structured assessments to explore your clients culture, determine cultural implications for counseling, consider the importance of language including using person-first versus identity-first language, and survey your clients satisfaction with services provided with an emphasis on their cultural experiences
Credits: 3

HUDE-440: Vocational Theory

Includes career choice development, theories, issues, and research, with emphasis on counseling and special populations.
Credits: 3

HUDE-442: Research Seminar in Counseling Psychology

Examination of the problems of research in counseling and critique of current research in counseling and psychology.
Credits: 1

HUDE-444: Group Processes

Didactic seminar which treats the history of group work, the different approaches to group psychotherapy, and participation in a process group.
Credits: 3

HUDE-446: Professional Ethics & Legal Issues in Psychology

This course will focus on the Ethical Principals of Psychologist and the Standards for Providers of Psychological Services.
Credits: 3

HUDE-447: Multiculturalism and Diversity in Counseling & Psychology

Addresses professional issues and trends, examines testing and assessment issues, and survey and evaluation research literature with regard to multiculturalism and cultural diversity in psychological practice.
Credits: 3

HUDE-447: Multiculturalism and Diversity in Counseling & Psychology

Credits: 3

HUDE-450: African / Black Psychology

Designed to engage students in critical thought about African Psychology and the historical legacy of traditional healers/healing within African People.
Credits: 3

HUDE-455: Issues & Trends in Measurement Theory

Advanced study of measurement theory together with the appraisal of measurement issues and trends in

terms of their theoretical implications.
Credits: 3

HUDE-490: Externship in Counseling Psychology

Provides supervised practice in facilities offering psychological services to clients; precedes the internship.
Credits: 3

HUDE-500: Advanced Statistics

Continuation of HUDE-400, with emphasis on ANOVA individual comparisons of means, power, probability, modal distributions, and multiple regression.
Credits: 3

HUDE-501: Design & Analysis of Research Projects

Provides practical and theoretical research considerations and examines balancing, locking, repeated measures, and mixed models.
Credits: 3

HUDE-502: Advanced Topics in Statistics & Multivariate Analysis

Study of advanced topics such as multiple regressional analysis, factor analysis, multivariate design, and ATI-type designs.
Credits: 3

HUDE-503: Directed Individual Study

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate. See page 577 for additional information related to courses with a range of hours.
Credits: 1-3

HUDE-504: Advanced ABA: Clinical Research and Practice

This course is designed to teach students to systematically evaluate the outcomes of clinical practice using single-case experimental designs.
Credits: 3

HUDE-509: Dissertation Research

Dissertation guidance for doctoral students. See pg. 577 for more information on dissertation hours.
Credits: 3-6

HUDE-516: Cognitive Affective Basis of Behavior

Theories of research on social, psychological and biological dimensions of learning, cognition, affect, memory and motivation (e.g., culture, self-concept, perception, cognition, emotion, genotype and maturation).
Credits: 3

HUDE-517: RTL and the Prevention of Academic problems

This course will address the use of formal and informal assessment procedures used to design and evaluate robust reading instruction and intervention for children in preschool through high school.
Credits: 3

HUDE-518: Internship

Intensive field experience in a supervised setting, emphasizing research, clinical practice, or college teaching. See page 577 for additional information related to courses with a range of hours.
Credits: 3

HUDE-519: Internship in School Psychology

Intensive field experience in a supervised setting, emphasizing research, clinical practice, or college teaching. See page 577 for additional information related to courses with a range of hours.

Credits: 1-3

HUDE-520: Internship in Counseling Psychology

Intensive field experience in a supervised setting, emphasizing research, clinical practice, or college teaching. See page 577 for additional information related to courses with a range of hours.
Credits: 1-3

HUDE-521: Theories and Methods of Mental Health Interventional and Prevention

Focuses on the theory and procedures of school consultation, assisting with problems interfering with learning and adjustments.
Credits: 3

HUDE-529: Child Abuse & Neglect

Introduces students to society's most complex problems-violence, abuse, neglect and trauma.
Credits: 3

HUDE-540: Supervision / Consultation

Involves the advanced doctoral student's supervision of beginning master's level practicum; students focus on the development of skills in supervision, group leadership, and counselor training.
Credits: 3

HUDE-600: Psychodynamic Interventions and Evidence-based Therapies

This is a graduate-level course for students interested in learning psychodynamic therapy principles with adult clients (although the conceptualization can also more broadly be applied to understanding assessments and clients in general). The psychodynamic approach taught in the course focuses on contemporary psychodynamic theories and therapies with an emphasis on techniques most supported in the empirical literature.
Credits: 2

HUDE-601: Evidence-based Systems Interventions and Therapies

This course is designed to introduce doctoral students to the research, theory, and practice of implementing evidence-based interventions in schools to improve the emotional, social, and behavioral functioning of children and adolescents. The course will address theory and research related to behavioral and cognitive behavioral interventions and will expose students to direct and consultation-based common practice elements along with manualized treatments to address internalizing and externalizing behaviors in school-aged children.
Credits: 2

HUDE-602: Cognitive Behavioral Interventional and Evidence based Therapies

Teaches the principles of cognitive-behavioral theory, conceptualization and psychotherapy techniques for psychological problems with adults. Supervision of cognitive-behavioral therapy with adults.
Credits: 2

HUDE-603: Theories of Personality

A study of major theories and perspectives on personality. The goal is to explain and evaluate major concepts in personality. Topics include trait, psychodynamic, behavioral, and humanistic theories. Methods of personality research and relevant findings are also introduced.
Credits: 3

HUDE-604: Professional Roles

This course facilitates the transition from a student role to one of a beginning professional. The course explores skills and knowledge needed by the PsyD and PhD professional psychologist including consultation, program development, teaching and administration. Professional issues (ethics, licensing, law, professional organizations) are also examined. A substantial part of the course is a practicum in supervision. Experiential

exploration of self concept as it relates to developing a professional identity is encouraged.
Credits: 3

HUDE-605: Clinical interviewing Counseling Psychology

This is a clinical skills course emphasizing the acquisition of therapeutic helping relationship skills and interviewing through role playing and modeling. Video and audio feedback as well as direct supervision is provided.
Credits: 2

Info/Systems Tech (EMBA)

XIST-500: Managing Technology and Innovation

This course explores the concepts of modern organizational information systems, and the technologies for implementing these systems. The role of information systems in organizations, particularly in strategic planning, gaining competitive advantage and the use of these systems in business problem solving. Processes of innovation are explored from an executive perspective.
Credits: 3

XIST-501: Management Statistics and Data Analysis

This course takes a managerial approach to the use of statistical concepts and data analysis. The course covers topics such as descriptive statistics, probability, bayesian analysis, sampling, statistical inference and correlation and regression analysis. Students are expected to be familiar with the use of personal computer, Office Automation Systems, and will use common statistical software.
Credits: 3

XIST-502: Creating Value through Supply Chain

Study of production and service operations from a systems perspective. Production and operations control is presented in the context of corresponding system designs. Specific topics include cellular and lean production/ Lean Manufacturing systems, quality assurance and control, inventory control, scheduling, deterministic and nondeterministic decision models, Value Engineering, MRP, and TQM. System-wide problem conceptualization and definition methodologies such as quality function deployment and supply chain management are presented. The domain of the evolving suppliercustomer integration is examined. Global strategic and competitive issues are discussed. Students are expected to analyze cases and develop a project using the principles learnt in this course.
Credits: 3

Information Systems/Tech (GR)

GIST-500: Principals of Information Systems

Fundamentals of information systems in business. Integration of information technology, ecommerce, systems analysis, database management systems, networking, security, and collaboration. Application of concepts through developing solutions to business problems using spreadsheets, database management systems, and web development tools / languages.
Credits: 3

GIST-501: Statistics & Business Analytics

This course introduces the field of statistics and business analytics. As part of this course, students will learn statistical concepts and its application in the business analytics context. Specific topics include data management, data visualization, probability and statistical inference, analysis, data modeling, and machine learning concepts and techniques. Content analysis, and the application of selected data mining techniques will be illustrated. The delivery of this course is through lectures, project work, and case studies with presentation. As part of the business analytics course curriculum, students will be trained on R, an opensource statistical software.

Credits: 3

GIST-502: Production / Operations Research

This course is an introduction to the concepts, principles, problems, and practices of operations management. Emphasis is on managerial processes for effective operations in both goods-producing and service-rendering organization.

Credits: 3

GIST-502: Production / Operations Research

This course is an introduction to the concepts, principles, problems, and practices of operations management. Emphasis is on managerial processes for effective operations in both goods-producing and service-rendering organization.

Credits: 3

GIST-503: Information System

Topics include hardware and software fundamentals, use of software packages, effective use of networks, Internet, and other communication tools, the design of management information systems, as well as the ethical use of computers in business and society.

Credits: 3

GIST-509: Project Management

This course examines activities related to project planning and estimating project scope and schedule. It also examines processes for managing project resources. Upon completion of this course, students are expected to be able to do the following: Plan and estimate project scope, resources, and schedule.

Credits: 3

Interdisciplinary Courses

INDI-100: Structure and Function Unit 2 (Head, Neck, NS)

This unit focuses on the structures (anatomy) of the head and neck, including their blood supply, lymphatic drainage, organization of fascia, skeletal support, cranial and spinal nerve innervation, muscles, organs of special sense, and glands (exocrine and endocrine.

Credits: 10

INDI-101: Molecules and Cells Unit 1

This unit presents biochemistry, molecular biology, cell biology and introductory histology as a prerequisite for understanding the structure and function of organs. The course material is presented in formal lectures, clinical application lectures, team-based learning sessions (TBL), discussion sessions, small group learning (SGL) exercises and laboratory exercises. Reading assignments, lecture objectives, lecture power points, explanation of active learning TBL and case based small group, discussion session assignments, small group learning exercises, laboratory manual and virtual slide collection are made available through Blackboard.

Credits: 12

INDI-102: Molecules and Cells Unit 2

After the completion of the unit, students should be able to describe and discuss the topics on the immune system, microbiology and human genetics.
Credits: 8

INDI-103: Medicine and Society Unit 2 (Nutr, Globl & Env)

This unit focuses on professionalism as it relates to becoming a physician and issues of health care policy.
Credits: 3

INDI-106: Medicine and Society Unit 3

This unit focuses on professionalism as it relates to becoming a physician and issues of health care policy.
Credits: 4

INDI-108: Structure and Function Unit 1

Structure and Function Unit 1 focuses on anatomical terms and concepts of organization, and uses these terms to describe the normal and abnormal anatomy of the human body.
Credits: 5

INDI-109: Structure and Function Unit 3 (Thorax, A&P)

This unit focuses on the functional anatomy of the thorax (wall, lungs and heart, along with surrounding structures of the mediastinum, blood and nerve supply), abdomen (walls, organs, blood and nerve supplies) and pelvis (walls, organs, blood and nerve supply) and be able to relate these to radiographic images and clinical scenarios.
Credits: 15

INDI-110: Medicine and Society Unit 1

After the completion of the unit, students should be able to describe and discuss the topics in Public Health.
Credits: 4

INDI-113: Introduction to Clinical Medicine 1

This unit focuses on taking a focused as well as a comprehensive medical history via advanced history taking skills, problem focused interviewing, and sexual and substance abuse history
Credits: 4

INDI-114: Health Care Ethics

This interprofessional ethics course involves teaching of rudimentary knowledge and skills in ethical theory and reasoning, professional ethics, interprofessional approach to health care decision-making, goals of health care, illness experience, and other topics of concern.
Credits: 2

INDI-303: Organ Systems Unit 1 (General Principles)

This unit focuses on the mechanisms of cell injury and adaptation from the perspective of pathology.
Credits: 6

INDI-304: Organ Systems Unit 2 (Hematopoietic & Lymphoreticular)

This unit focuses on hematologic and lymphoproliferative disorders, immunology disorders, and skin and musculoskeletal disorders.
Credits: 6

INDI-305: Organ Systems Unit 3 (Cardiovascular & Respiratory)

Covers macroscopic and microscopic anatomy of the lungs and pulmonary compliance and resistance.

Credits: 7

INDI-307: Organ Systems Unit 5 (Gastro System)

The course includes an initial review of normal structure and function of various organs of the female reproductive system, including vulva, vagina, cervix, uterus, ovary, fallopian tubes and breast. It also examines in depth the abnormal processes of the female reproductive system, including infectious, inflammatory, immunologic, and neoplastic disorders, as well as drug treatments and surgical interventions. Clinical cases were used to illustrate concepts of reproductive diseases presentations and clinical management. The course also includes small group sessions with a particular objective of corroborating materials presented in lectures with clinical presentations that combine pathology, diagnosis and treatment. The course includes an initial review of embryonic development, normal structure and function of various organs of the gastrointestinal system, including alimentary canal, liver and biliary system, salivary glands and exocrine pancreas, motility, digestion and absorption. It also examines in depth the abnormal processes of the GI system, including infectious, inflammatory, immunologic, traumatic and mechanical disorders, as well as drug treatments and surgical interventions. Instructors use clinical cases to illustrate concepts of their GI disease presentations and clinical management. The course also includes small group sessions with a particular objective of corroborating materials presented in lectures with clinical presentations that combine pathology, diagnosis and treatment.
Credits: 8

INDI-308: Organ Systems Unit 6 (CN System)

This unit incorporates the basic and clinical principles underlining the Central Nervous System. These series of lectures and small group discussions integrates the areas of pharmacology, pathology, microbiology, physiology, neurology, radiology, psychiatry, and ophthalmology.
Credits: 7

INDI-324: Organ Systems Unit 4 (Renal/Urinary)

Covers structure and function of the endocrine system organs including hormone synthesis, secretion, action and metabolism in the hypothalamus, posterior and anterior pituitary gland, thyroid and parathyroid glands, adrenal cortex, adrenal medulla and pancreatic islets.
Credits: 6

INDI-401: Intern Readiness Course

The Internship Readiness Course is a required 2-week course in which fourth-year students will review and practice common in-hospital acute care clinical scenarios, bedside procedures and surgical skills, and communication techniques. Students are assigned to one of four subspecialty tracks according to their planned residency specialty: Acute Care/Medicine, Pediatrics, Surgery or Obstetrics/Gynecology.
Credits: 4

International Affairs

INTL-501: Contemporary Issues in International Affairs

Three courses from the existing selection of courses in International Affairs offered at Howard University (please contact individual departments for further information). Of these, two shall be from the student's primary/or one discipline to satisfy the depth requirement and one from a separate discipline to meet the breadth requirement .
Credits: 3

INTL-508: Historical & Contemporary Issues of Middle East

This is an introductory course to the history of the Middle East in the "long Twentieth century," from the end of the 19th century until the present. The goal of this course is to introduce students to major political, social, intellectual and cultural issues and practices in the Middle East, focusing on important events, movements and ideas, which shaped the history of the Middle East during the last century and affect its current realities.

Credits: 3

INTL-509: Internship in International Studies

A mandatory capstone course in which the student must present in written and oral forms the results of a research project or internship that integrates the knowledge gained in all prior courses. The internship is to be 200 hours with an agency that deals with international issues.
Credits: 3

INTL-511: Political Diplomacy

This course explores how modern diplomacy and negotiation can effectively address seemingly "intractable" international conflicts and overcome barriers to agreement in civil wars, interstate conflicts, as well as in trade and finance. Drawing on in-depth cases, the course will develop diagnostic and prescriptive characteristics of effective negotiation and diplomacy as tools of political, military, economic and financial statecraft.
Credits: 3

International Business (EMBA)

XINB-500: Managing the Global Business

A framework is developed for analyzing and examining the complexity and diversity of the international business environment. Theories and analysis relevant to major national and regional business environments are examined. Organizational and functional issues are discussed, including firm structures and industry analysis. Includes optional twoweek travel to China, India, or South
Credits: 3

International Business (GR)

GINB-500: International Business

The course examines global economies and markets, such as business customs, multinational businesses and foreign trade practices. Students also study foreign business environments, cultural dynamics, economic developments and political impacts on foreign businesses.
Credits: 3

GINB-500: International Business

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Credits: 3

GINB-590: Global Business Strategy

The fundamentals of strategic decision making in competitive global environments and diverse national economies will be the focus of this course. Through a management consulting engagement, students will learn how to effectively develop, lead, research and analyze a strategic business challenge. This "engagement" is designed to assist a private business enterprise, multilateral organization, or government agency solve a business-related problem. The course familiarizes students with analytical and conceptual problem-solving approaches and techniques and encourages students to think creatively. Finally, the course seeks to expose students to global entrepreneurship through significant case studies, course readings, guest speakers, and other methodologies.
Credits: 3

Jazz Bass

MUTZ-311: Jazz Bass I (Grad)

Instruction of advanced jazz bass technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

MUTZ-312: Jazz Bass II (Grad)

Instruction of advanced jazz bass technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

MUTZ-321: Jazz Bass III (Grad)

Instruction of advanced jazz bass technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

MUTZ-322: Jazz Bass IV (Grad)

Instruction of advanced jazz bass technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

Jazz Piano

MUTX-311: Jazz Piano I (Grad)

Comprehensive course for advanced jazz pianists encompassing varied jazz styles and techniques.
Credits: 3

Prerequisites:

Audition required.

MUTX-312: Jazz Piano II (Grad)

Comprehensive course for advanced jazz pianists encompassing varied jazz styles and techniques.
Credits: 3

Prerequisites:

Audition required.

MUTX-321: Jazz Piano III (Grad)

Comprehensive course for advanced jazz pianists encompassing varied jazz styles and techniques.
Credits: 3

Prerequisites:

Audition required.

MUTX-322: Jazz Piano IV (Grad)

Comprehensive course for advanced jazz pianists encompassing varied jazz styles and techniques.
Credits: 3
Prerequisites:
Audition required.

Jazz Studies (A)

MUSH-392: Improvisation (Grad)

Exploration of advanced improvisational techniques in the jazz idiom.
Credits: 3

Jazz Studies (B)

MUSI-210: Jazz History (Grad)

Study of the history, sociology, culture and development of jazz from its African origins to the present and beyond.
Credits: 3

MUSI-232: Introduction to Entertainment Law (Grad)

An introductory course for all artists which explores contracts, torts, agency, labor relations, copyrights and communications.
Credits: 3

MUSI-250: Pedagogy of Improvisation (Grad)

Survey of jazz instructional materials and methods.
Credits: 3

MUSI-259: Administration of College Jazz Studies

Course exploring design of higher education jazz studies curricula.
Credits: 3

MUSI-260: Independent Study Jazz (Grad)

Course allowing for advanced, directed research in Jazz music.
Credits: 3

Prerequisites:

Requires consent of the instructor.

MUSI-262: Independent Study Jazz (Grad)

Course allowing for advanced, directed research in Jazz music.
Credits: 3

Prerequisites:

Requires consent of the instructor.

MUSI-265: Jazz Composition

Techniques and methods of jazz composition and development.
Credits: 3

MUSI-376: Music Technology (Grad)

Study of concepts in modern electronic music production, including acoustics, power, devices, MIDI, storage, software, and computers. Lab; includes independent study projects using technology.
Credits: 3

Prerequisites:

Consent of the instructor required.

MUSI-383: Jazz Arranging (Grad)

Exploration and analysis of representative big band jazz arrangements, demonstrating intermediate and advanced techniques of instrumental arranging.
Credits: 3

Prerequisites:

Requires consent of the instructor.

MUSI-434: Vocal Arranging (Grad)

Requires consent of the instructor.
Credits: 3

Jazz Vocal Ensemble

MUTV-311: Jazz Vocal Workshop I (Grad)

Development of jazz solo and group performance skills, including improvisation, sight reading, repertoire and contemporary vocal technique.
Credits: 1

MUTV-312: Jazz Vocal Workshop II (Grad)

Development of jazz solo and group performance skills, including improvisation, sight reading, repertoire and contemporary vocal technique.
Credits: 1

MUTV-321: Jazz Vocal Workshop III (Grad)

Development of jazz solo and group performance skills, including improvisation, sight reading, repertoire and contemporary vocal technique.
Credits: 1

MUTV-322: Jazz Vocal Workshop IV (Grad)

Development of jazz solo and group performance skills, including improvisation, sight reading, repertoire and contemporary vocal technique.
Credits: 1

Jazz Voice

MUTW-311: Voice for Jazz Studies I (Grad)

Advanced techniques of breathing, tone development, and vocal styles as they relate to the jazz idiom; development of the standard jazz repertoire.
Credits: 3

Prerequisites:

Audition required.

MUTW-312: Voice for Jazz Studies II (Grad)

Advanced techniques of breathing, tone development, and vocal styles as they relate to the jazz idiom; development of the standard jazz repertoire.

Credits: 3
Prerequisites:
Audition required.

MUTW-321: Voice for Jazz Studies III (Grad)

Advanced techniques of breathing, tone development, and vocal styles as they relate to the jazz idiom; development of the standard jazz repertoire.
Credits: 3

Prerequisites:

Audition required.

MUTW-322: Voice for Jazz Studies IV (Grad)

Advanced techniques of breathing, tone development, and vocal styles as they relate to the jazz idiom; development of the standard jazz repertoire.
Credits: 3

Prerequisites:

Audition required.

Journalism

JOUR-306: Multicultural Issues

Comparison of black and white press histories-political, economic, social and cultural, emphasizing the development characteristics of the former.
Credits: 3

Law

LAW-010: Research Methods in International, Foreign and Comparative Law

This one-credit seminar in advanced legal research introduces students to specific sources and strategies for international, foreign, and comparative legal research. It covers key primary and secondary sources in both print and electronic formats – including freely available and subscription-based resources. The subjects examined will include treaty law, the law of international organizations, European Union law, civil law and other foreign legal systems, as well as selected topics in international private law. The course emphasizes the research process, strategies, and evaluation of print and online sources in a rapidly evolving legal information environment.
Credits: 1

LAW-10: *Research Methods in International, Foreign and Comparative Law

This one-credit seminar in advanced legal research introduces students to specific sources and strategies for international, foreign, and comparative legal research. It covers key primary and secondary sources in both print and electronic formats – including freely available and subscription-based resources. The subjects examined will include treaty law, the law of international organizations, European Union law, civil law and other foreign legal systems, as well as selected topics in international private law. The course emphasizes the research process, strategies, and evaluation of print and online sources in a rapidly evolving legal information environment.
Credits: 3

LAW-102: *Howard Law Entertainment

In this course, we will critically examine this intersection by engaging in a 360 degree analysis of entertainment law – in one of the leading creative capitals of the world: Los Angeles. Students will identify, discuss, coordinate and set the agenda for class sessions with professionals working in diverse aspects of the entertainment industry and impacted by the intersection of law, entertainment and the arts. Students will utilize direct exposure to industry leaders and veterans to examine: I. legal restraints on entertainment stories, II. Intellectual property in entertainment assets, III. contractual relations in the entertainment industry, and IV. industry organization, power and regulation in the arts and entertainment.

Credits: 3

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Credits: 3

LAW-319: Tax Externship

The IRS Externship was founded by renowned tax expert and former Dean of the Law School, Professor Emeritus Alice Gresham Bullock. In the course, students are placed in the Office of Chief Counsel of the Internal Revenue Service here in Washington, DC. In the seminar, the professor exposes students to the practices, policies and procedures of the IRS, as well as the substantive tax laws that govern the work of the Service. Externs secure a field placement with the IRS' Chief Counsel's Office and are assigned to work on a variety of projects. Howard Law externs focus on excellence in governmental and public interest lawyering, social justice issues and professional responsibility. These key components are echoed in the work done at the field placement, as well as during the weekly one-hour required classroom seminars taught by the Professor.

Credits: 4

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Credits: 4

LAW-400: *Corporations

This course is an introduction to corporate law and the role of the corporation in society. We will review both the current state of the law and the increasingly rapid changes in the field.

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Credits: 3

LAW-502: *Corporate Counsel Seminar

The Corporate Counsel seminar is intended to be the first course for students interested in careers as corporate lawyers or representing public and private entities. We will focus on ethical issues relating to the representation of a corporation, including conflicts and their waiver, confidentiality, and client identity. We will also address the ethical obligations that corporate lawyers owe to the courts and regulators. In addition, we will study the role of lawyers in advising corporate boards and officers with regard to their fiduciary obligations, and corporate governance issues. As a seminar course, this course will be largely interactive, with some lecturing led by the professor to ground learning in salient topic area. Most of the class time will be devoted to discussing issues highlighted in the reading materials. During the second half of the semester, we will focus on preparation for final papers, with student-led lectures and class discussions based on their selected research topics.

Credits: 3

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Credits: 3

LAW-505: CD: Legal Spanish

This course provides students the opportunity to improve their personal and professional Spanish proficiency, so they can provide effective legal representation to their future or current Spanish-speaking clients. Throughout the course, students will acquire the skills necessary to conduct attorney-client interviews in Spanish; counsel Spanish-speaking clients living in the United States (monolingual and Spanglish speakers); and overcome the obstacles that prevent effective communication with Spanish-speaking clients in a legal setting (e.g. cultural differences, regional language usage, and legal systems variations). The course relies on extensive simulations, exercises and discussions through which students will strengthen their speaking and comprehension abilities. After completing the course, students will be familiarized with Spanish legal terminology in a variety of practice settings such as criminal and civil procedure, immigration, domestic relations, and criminal law.

Credits: 3

LAW-507: Legislation / Regulation

This course emphasizes the statutes and regulations that form the basis for much of legal practice.

Credits: 3

LAW-509: CD: Developing a High-End Civil Trial Practice

The Developing a High-End Civil Trial Practice course introduces students to the high value civil plaintiff practice world. Students will learn how to obtain, manage, develop and win millions of dollars in settlements and verdicts. The course will include presentations from and conversations with successful trial attorneys. Additionally, the participants will learn about key experts used in high stakes civil litigation. The course will culminate with the students demonstrating their knowledge of developing a high-end civil trial practice by presenting the strategy used to successfully acquire and manage a multi-million dollar case.

Credits: 3

LAW-510: *CD: Labor – Management Cooperation

This course will provide an intensive and strategic analysis of the relationship between labor and management particularly as it pertains to topical illustrations of the nuances and dynamics of spearheading collaborative techniques that contribute to best in class labor-management relations. Critical to any understanding of the ebb and flow in this field is a strong foundational basis of the often confrontational history of unions and management. In this regard the student will be exposed to traditional advocate organizations such as the American Federation of Labor-Congress of Industrial Organizations (AFL-CIO) and the National Association of Manufacturers (NAM). In addition, other organizations in the field will be analyzed and discussed such as the Labor and Employment Research Association (LERA), the American Arbitration Association (AAA) and the Federal Mediation and Conciliation Service (FMCS). The role that the latter three organizations will be discussed specifically in the context of how they work with both labor and management to achieve best in class results for this rapidly evolving industry. Moreover, the student will be empowered to understand the Page 2 profound impact that federal, state and local laws have had in the field of labormanagement relations. These laws include, but are not limited to the Wagner Act of 1935 which created collective bargaining in the private sector, the Taft-Hartley Act of 1947 which created right to work states and FMCS and State PERB's which govern the relationship between and among public employers and municipal employees. Appropriately agencies such as the National Labor Relations Board and the Public Employees Relations Board will also be examined, showcased and dissected. Furthermore, the expanded use of alternative strategies for resolving labormanagement conflicts will provide a critical perspectives and insight for the course. Concepts such as Interest Based Bargaining, Mutual Gains, Mediation and Arbitration and the impact on labor and management will be articulated, emphasized and examined Lastly, another highlight of the course will be an individual inventory which will be administered to determine how engaging each leader could be in the context of labormanagement relations

Credits: 3

LAW-511: CD: Entrepreneurship Law & Policy

This course, Entrepreneurship, Law and Policy, will teach law students (and, perhaps, students from other disciplines) how to practically apply the wide and varied body of legal principles involved in establishing and expanding a business venture. The course will primarily explore the role of law in the entrepreneurial process in the following legal areas: corporate law, agency law, contract law, business organizations' law, intellectual property law, small business administration law, tax law, franchise law and the law which governs efforts to raise capital. The course will also discuss related topics such as how to write a business plan and how to finance and market the emerging business.

Credits: 3

LAW-550: CD: Civil Rights: The Ensuing Pursuit of Justice

The course will examine federal and state cases and legislation which have defined the scope and limitations historically faced by blacks from the point of slavery to modern times. It will also examine how early social and economic realities have shaped society's and thus the court's view of the role of blacks in America. An examination of major cases leading to systemic change and the advancement of the cause of equal justice and at times retrenchment will also be explored.

Credits: 3

LAW-551: Capital Punishment Law

The course presents an overview of modern-day capital punishment in the United States. Throughout the semester, students will review the Supreme Court's key substantive and procedural decisions on capital punishment. Students will also examine the history of the death penalty in America—including understanding its relationship to slavery and lynching—to gain appreciation for the context in which the punishment is currently used. The course will conclude by analyzing arguments for and against the use of capital punishment. At the end of this course, students should understand the basic legal principles of modern-day capital punishment law in the United States.

Credits: 6

LAW-552: CD: Fundamentals of Taxation of Partnership

This course will provide students with a basic understanding of the U.S. federal income taxation of partnerships and partners.

Credits: 3

LAW-553: CD: Technology and Law

This seminar course is designed to provide an overview of some of the most salient issues in technology law and policy, which is emerging as a critical practice area. The course will discuss how powerful technology tools have become formidable weapons with a view to developing a framework to address some of the thorniest issues attendant to the explosion of technology in the 21st Century, including privacy, cybercrime, the conundrums of Artificial Intelligence, and the impact of social media on democracy. As the field of technology becomes a larger part of legal practice and social policy, it is critical that aspiring social engineers be part of the policy development process to ensure that the rights and interests of historically disenfranchised groups are adequately represented, not leaving the development of laws and policies to others who are not committed to a fair and just society that promotes access and engagement for all.

Credits: 3

LAW-556: Equal Employment Opportunity Law

This course covers a wide range of laws and regulations that govern employment discrimination. This includes an analysis of Title VII, the Rehabilitation Act, the Age Discrimination and Employment Act and the Genetic Information Nondiscrimination Act. The substantive information will be presented in a seminar format. The objective of the course is to empower students to become independent thinkers and to advance the student's knowledge of equal employment law by encouraging students to formulate, explain, and present ideas orally and in writing.

Credits: 3

LAW-557: ADR Consortium Externship

Program participants will gain practical experience in targeted ADR processes at partner organizations through work assignments and observations. Program participants will be placed and required to work on-site twelve (12) hours per week in both the Fall and the Spring semesters at one of the following partner organizations: U.S. EEOC (Workplace Mediation); U.S. Department of Homeland Security (Mediation); or U.S. Department of Commerce-ITA (International Trade Negotiation).

Credits: 2-8

LAW-560: Adoption Law

The course examines the legal framework governing adoptions through an examination of the legal relationships among children, families, and the state. Coursework includes substantive and practical analysis of the status, rights, and obligations of parents and children and current issues impacting the balance between family autonomy and state regulation. Students also will examine how adoption law involves complex issues of race, class, gender, and economic status.

Credits: 3

LAW-563: *Skill-Based Mediation Training

This is an introductory mediation skills development course. Mediation is one of the alternative dispute resolution conflict management mechanisms. This three-credit experiential course will be approached from the perspective of educating the novice dispute resolver as to what mediation is, how it is different from arbitration and other forms of dispute resolution, what skills are necessary to manage the mediation process and how to utilize the "appropriate skills and dispute resolution tools" to resolve a dispute. The sessions will include lectures, demonstrations (video-taped and/or live), discussions, and simulations. The overall objective of the course is to give students a general understanding of mediation (from the perspective of the mediator and a party). Through simulated exercises, students will learn the basic skills necessary to manage the mediation process. Through discussions and lectures, they will gain a general familiarity with other dispute resolution processes. This course is intended to assist the student in the development of the following lawyering skills: (1) negotiation; (2) fact development and analysis; (3) conflict resolution; (4) collaboration; (5) cultural competency; and (6) self-evaluation.
Credits: 3

LAW-564: CD: Artificial Intelligence and the Law

This seminar explores various aspects of the interaction of Artificial Intelligence and the law including some or all of the following aspects: liability for AI errors (e.g., self-driving cars); bias in AI expert systems and AI analysis and its impacts on minorities traditionally marginalized groups (e.g., setting bail and criminal sentencing); AI and IP (e.g., if patents are intended to teach the art patented, and the art patented is not understood because it is self-learning AI, should patents be issued?); IP social justice aspects of AI including the EU's General Data Privacy Regulation requiring AI to be explainable for certain critical settings such as medical diagnosis; AI and social media, especially with respect to privacy concerns; AI in law practice and law firm management; implications of AI for employment, the economic system, and legal responses thereto; and applying AI to legal decision-making for claims for benefits such as social security disability or workers compensation.
Credits: 4

LAW-565: *CD: Employment Law: Mediation and Arbitration

This three-credit short-course will explore the theories and skills necessary for the effective use of mediation and arbitration. The course does not presume that the student will necessarily be the advocate representing one side or the other in the actual mediation or the arbitration. Workplace policymakers and administrators, too, should understand the theory and skills of each to be able to construct effective conflict resolution systems and to implement them effectively for their organizations. The course will make a limited use of lectures. Instead, the course will rely heavily on: (1) case studies and problems to permit the analysis and diagnosis of workplace conflicts; (2) role-plays to practice some of the skills required in mediation and arbitration; and (3) small-group-focused exercises on specific problems to permit peer-to-peer, as well as self-learning. *This is not a simulation course as defined by ABA Standards promulgated by the Section of Legal Education and Admission to the Bar.
Credits: 3

LAW-572: Islamic Law

This seminar explores the many facets of Islamic law in both a domestic and international perspective.
Credits: 2

LAW-573: *CD: International Criminal Law

The course will cover international criminal law and transitional justice through the use of case studies from around the world. The course will cover international criminal law, and its foundation in international human rights law and international humanitarian law. We will examine accountability for mass human rights violations through war crimes tribunals, beginning with the post-World War II tribunals in Nuremberg and Tokyo. We will then explore the evolution of international criminal law through treaties and conventions, as well as mechanisms for accountability such as international criminal tribunals and specialized domestic courts. The course will also explore transitional justice, the counterpart to accountability, that focuses on societal reconciliation, through restorative justice measures such as truth and reconciliation commissions and reparations. We will explore various transitional justice measures such as the Truth and Reconciliation Commission in South Africa, as well as remedial measures following state conflict, such as compensation commissions, reparations and amnesty agreements. We will use a new case study each week to explore these various aspects of international criminal law and transitional justice. Case studies include conflicts in Rwanda, Yugoslavia, Sierra Leone, Cambodia, South Africa, Colombia, Iraq, and the United States, among others.
Credits: 3

LAW-580: Judicial Externship

This externship gives practice and classroom learning experience for students who are working as judicial interns during the summer semester.
Credits: 2-6

LAW-600: Introduction to IP

This large survey course provides a broad view of the many issues in intellectual property law.
Credits: 2

LAW-610: Introduction to U.S. Legal Systems

This course for Masters of Law students establishes a foundational understanding for international lawyers working in or with the United States.
Credits: 3

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Credits: 3

LAW-612: Constitutional Law I

This introductory course focuses on the issues raised by the structural parts of the United States Constitution. Consideration will be given to judicial processes in constitutional cases; judicial review; and the federal courts functioning in the constitutional system.
Credits: 3

LAW-613: LRRW I

This course is designed to help foreign law students succeed in the JD and LLM programs by focusing on and improving students' legal writing skills. Through various readings and writing exercises, students will learn how to structure arguments, explain the law, and organize information for a variety of legal documents.
Credits: 2

LAW-614: Real Property

This course covers all major areas of real property law, including the nature of real property, types of ownership, real estate contracts, title and insurance, financing, landlord and tenant, land use, environmental law and regulation.

Credits: 4

LAW-615: Contracts

This contract law course, with new materials and updated case examples, is designed to introduce the range of issues that arise when entering and enforcing contracts. It will provide an introduction to what a contract is and also analyze the purpose and significance of contracts.

Credits: 5

LAW-616: Criminal Law

This course will examine the basic elements of crimes, including actus reus and mens rea; some general doctrines of criminal liability, such as complicity, causation, attempt, and conspiracy; an example of substantive crime grading (homicide); and defenses to crimes.

Credits: 3

LAW-617: Torts

This course will introduce you to major areas of tort law such as intentional torts, negligence and strict liability, as well as damages issues in tort actions.

Credits: 4

LAW-621: Constitutional Law II

This introductory course focuses on the issues raised by the structural parts of the United States Constitution. Consideration will be given to judicial processes in constitutional cases; judicial review; and the federal courts functioning in the constitutional system.

Credits: 3

LAW-623: Administrative Law

This course considers the implementation of legislative policy through the administrative process and addresses the structure, functions, powers and procedures of administrative agencies and their relationship to the courts, with emphasis upon the regulations consistent with the protection of liberty and property under law.

Credits: 3

LAW-625: Advanced Legal Research

This course offers a detailed and comprehensive examination of legal research resources. The course combines class lectures with research assignments on general and specialized topics, so that you will learn to develop research strategies and analyze research results.

Credits: 2

LAW-626: Antitrust

This course focuses on the policies and legal principles associated with protecting competition and the competitive process through enforcement of the federal antitrust laws, primarily the provisions of the Sherman, Clayton, and Federal Trade Commission Acts. We will study the application of these laws to collusion by rivals, mergers, exclusionary conduct by dominant firms, and various kinds of potentially anticompetitive distribution practices. The course integrates traditional case law study with the use of problems, policy, economic analysis, and consideration of the current antitrust matters in the news, especially those involving the tech-related industries. No prior formal coursework in economics, however, is required. You will quickly come to realize how much of the necessary economic principles you already understand by virtue of your daily encounters with markets.

Credits: 2

LAW-627: Agency

"Agency, Partnerships, and Other Unincorporated Business Organizations", a fundamental and foundational course in the study of Corporate and Business Law, depends heavily on enacted state statutes and adopted uniform or model statutes. Accordingly, state statutory law and common law rulings govern this study. In this course, you will learn agency law, the indispensable substantive law on which all businesses, regardless of how they are organized and structured, depend. Once we've have understood this foundational legal framework, we will carry that understanding through the study of Partnership Law and Limited Liability Companies. Although corporate entities, joint ventures, trusts, s-corporations, and c-corporations will make appearance throughout the drama of the substantive materials, we will devote our focused learning to agency law, partnerships, and LLCs, fiduciary duties and the Business Judgment Rule ("BJR").
Credits: 3

LAW-629: Evidence

Evidence is the study of what parties to a criminal prosecution or civil lawsuit may introduce at trial. During the course, you should develop greater understanding of litigation. When you receive a case (real or a fact pattern) you should now be able to spot the evidence issues, know what testimony and physical evidence the judge will admit, what the judge will exclude, and what issues require further research. You will know how to object and how to argue in favor and against admissibility. You should comprehend how the evidence presented connects to the lawyers' final summations to a jury. The bar examination in every state contains multiple evidence questions, creating a direct link between your study habits in this course and your future ability to retain the substantive law necessary to pass the bar.
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Credits: 3

LAW-630: Legal Writing III

This course is designed to help foreign law students succeed in our JD and LLM program by focusing on and improving students' legal writing skills. Through various readings and writing exercises, students will learn how to structure arguments, explain the law, and organize information for a variety of legal documents.
Credits: 2

LAW-638: ADR

This course will introduce the concept and practice of alternative dispute resolution. We will focus on the primary ADR processes - negotiation, mediation and arbitration - (among others) and examine these processes in the context of different areas of the law and the judicial system.
Credits: 3

LAW-641: *Creditors & Debtors/Bankruptcy

Nearly every person and company in America has debt. Debt finances home purchases, educations, business investment, and more. But what happens when households or businesses do not pay their debts? This course focuses on the state and federal laws that govern the relationships between borrowers (debtors) and their creditors when debtors cease paying their debts. Consumer bankruptcy under chapters 7 and 13 of the Bankruptcy Code is one the largest social insurance programs in the United States. Empirical research suggests that bankruptcy protection increases annual earnings and employment, and decreases mortality rates. Yes, bankruptcy saves lives! Come learn how.

Credits: 3

LAW-642: *Criminal Procedure I

Criminal Procedure (Crim Pro I) will improve your skills in constitutional analysis. Students will develop educated views about a subject fraught with controversy and challenges. The problem method used in this course should improve your skills in problem-solving and rule-application and help you to think tactically and strategically. Hopefully, the problems will help you see the relationship between the doctrine handed down by the Court and how this plays out in the practice of law. The bar examination in every state contains multiple criminal procedure questions, creating a direct link between your study habits in this course and your future ability to retain the substantive law necessary to pass the bar. A student who completes this course will come away with an understanding of the basic doctrines of constitutional criminal procedure and will understand how courts determine whether a search or seizure within the meaning of the Fourth Amendment has taken place, the rules governing when a search warrant is required, the rules governing arrests, whether and when evidence is likely to be excluded at trial, whether and when a criminal defendant has a right to counsel, and the various doctrines governing police interrogations, including the Miranda rule, the Fifth Amendment voluntariness test and the Sixth Amendment right to counsel. Students will be able to read a police report and spot the issues or read a report issued after a DOJ investigation of a police department and understand the underlying legal principles. This course will prepare students for bar questions and a clinic or externship where the subject matter includes criminal matters or civil rights lawsuits on police misconduct.

Credits: 3

LAW-643: Criminal Investigation and Trial Procedure (also known as Criminal Procedure II)

This seminar more fully explores the myriad issues of criminal procedure, including arrest, search and seizure, grand juries, etc. The course helps prepare students for the bar exam.

Credits: 3

LAW-647: Family Law

How has the law constructed families? What are the common law, statutory, and constitutional principles that affect the formation and dissolution of families? What are the differences between public and private regulation of the personal and financial relationships of married and unmarried couples and parents and their children? In this course, we explore the laws and public policies governing marriage and other non-marital relationships; the economic consequences of marital and non-marital "break-ups" for adults and children; the law regarding child custody and visitation; the ethical responsibilities of lawyers who practice in these areas; and other possible topics to be determined.

Credits: 3

LAW-649: Federal Criminal Law

This course is a detailed exploration of the federal law implications in the criminal justice system.

Credits: 2

LAW-651: Wills, Trusts & Estates

This course will cover intestate succession (when a decedent dies without a will); requirements for the execution, revocation, and revival of wills and codicils; problems in the interpretation of wills; grounds for will contests; requisites for the creation and termination of private trusts; and inter vivos transactions that serve as will substitutes and that relate to testamentary dispositions. Relevant tax aspects are considered on a limited basis. This course will also address the ethical and professional responsibilities of lawyers representing clients in this area. In addition, we will consider how discrimination based on race, gender, class, and sexual orientation has contributed to the wealth disparity in this country.

Credits: 3

LAW-652: *CD: Environmental Justice

This course will explore environmental problems or issues addressed by the law. Students will understand environmental law (Domestic & International) and explore how environmental justice law supplements and enhances environmental law to ensure justice for disadvantaged peoples confronting disproportionate burdens of environmental harm is caused by human conduct. This course will explore the specifics of Federal and selected state constitutional rights and remedies, Federal Statutory Rights, and major proposals for additional rights and remedies.

Credits: 3

LAW-653: Environmental Law

This survey course provides students a broad view of environmental law and policy with a particular focus on environmental issues facing marginalized communities.

Credits: 3

LAW-654: Legal Writing II

The second part of the LRRW Program is Legal Writing II (LWII), a required two- credit, semester-long course which must be taken either in the fall or spring of the student's second year unless the student failed LRRW, in which case the student must take LW II in the year immediately following successful completion of LRRW. LW II is designed to reinforce and deepen the students' knowledge of and ability to perform factual analysis, legal analysis, legal reasoning, legal research, and writing. The primary project is writing and rewriting an appellate brief on relatively difficult legal Issues.

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Credits: 1

LAW-655: *CD: Public Ethics

This course includes an overview of the law and legal issues associated with public ethics (federal, state and local government officials and employees) with specific emphasis on such issues such as: conflicts of interest; sexual misconduct; acceptance of gifts, gratuities, and honorariums; use of title, prestige, and position to influence, to steer contracts or for personal benefit and gain; post- employment restrictions; lobbying, financial disclosures, selective enforcement of ethical investigations, and the specific ethical codes applicable to executive, legislative and judicial officials and public employees. There is also a review and analysis of the enforcement of ethical standards and requirements. The course also examines the ethical responsibilities imposed upon the President, Governors, and executive officials; prosecutors; law enforcement officials; public defenders; judges and others in connection with their role in the administration of criminal justice. The Course is open to JD students, LLM students and Divinity Students.

Credits: 3

LAW-656: Immigration Law

This course surveys the legal, historical, and political considerations that shape U.S. immigration law. The course will review the constitutional basis for regulating immigration into the United States, and, to some extent, the constitutional rights of noncitizens in the country; the history of U.S. immigration law and policy, including present-day debates; the contours of the immigration bureaucracy, including the roles played by various federal agencies in immigration decisions; the admission of nonimmigrants (i.e., temporary visitors) and immigrants into the United States; the deportation and exclusion of nonimmigrants and immigrants; the intersection of immigration and criminal law; and citizenship and naturalization. Much of the course focuses on the comprehensive immigration law, the Immigration and Nationality Act (INA) of 1952, as amended by numerous laws and the implementing regulations. Although comparisons to immigration law and policy of other countries, as well as various sources of international law, are drawn upon from time to time, the primary focus of his class is immigration law in the United States.

Credits: 2

LAW-661: International Law

This seminar give students a learning and writing experience focused on the myriad international law issues.
Credits: 3

LAW-662: Federal Income Tax

This course provides a survey of the federal income tax system as it relates to individuals and business activity. Topics such as the internal revenue code, treasury regulations, and case analysis; tax policy, economics, and public finance; and tax legislation will be covered. Specific concepts include income, exclusions, deductions, credits, tax accounting, and tax procedure. In addition, we will consider the role that race, gender, class, and sexual orientation play in the federal income tax system.
Credits: 2

LAW-666: Civil Procedure

This course introduces the rules and principles governing procedure in civil litigation. Topics include personal jurisdiction; subject-matter jurisdiction; and choice of law in the federal courts.
Credits: 4

LAW-668: International Business Transactions

This seminar provides an opportunity for students to learn about the international law of corporate operations.
Credits: 3

LAW-670: CD: Corporate Federal Income Taxation

*note to students: this was previously known as Advanced Corporate Problems. Students cannot take this class if they took the other.
Credits: 1

LAW-674: Labor Law

This seminar explores the topics of labor law in the United States through regulatory and common law experiences and learning.
Credits: 3

LAW-680: Federal Courts

This course provides students an in-depth view of the federal court system and explores practice in federal courts.
Credits: 3

LAW-681: Legal Drafting

This course will teach you the principles of contemporary commercial drafting and introduce you to documents typically used in a variety of transactions. The skills you gain will apply to any transactional practice and will even be useful to litigators. Upon finishing the course, you will know the business purpose of each of the contract concepts; how to translate the business deal into contract concepts; how to draft each of a contract's parts with clarity and without ambiguity; how to add value to a deal; how to work through the drafting process; and how to review and comment on a contract.
Credits: 3

LAW-682: Municipal Law

This course provides an introduction to the state and its local governments in all their many variations across the U.S.. Topics include presentation of; the constitutional, political, and legal debates about the allocation of power among the various levels of government, the predominant normative assessments of local government law, several models of local government law as reflected in current (U.S. and state) Supreme Court, including

lower federal court decisions, and the basic state-local relationship and the rules that govern it.
Credits: 4

LAW-683: Interviewing, Negotiating, & Counseling

This practice seminar gives students significant experience in the key lawyer methods of interviewing clients and others, negotiating and counseling for all key constituencies.
Credits: 3

LAW-686: Patent Law

Topics to be covered in the course include patentable subject matter, utility, novelty, non-obviousness, disclosure, enablement, infringement, and remedies.
Credits: 3

LAW-687: Professional Responsibility

Professional Responsibility: Advocacy and Ethics in Practice is a two-credit course in which through simulation involving interaction with clients, fact-finding, negotiation, and litigation, students will learn how ethical and values dilemmas arise in advocacy and practice settings and how ethical rules and other forms.
Credits: 3

LAW-687: Professional Responsibility

This is a required upper level course that teaches the traditions of the legal profession. It provides an understanding of the essential elements in the business aspects of law practice, including authorized practice, fee determinations, bar organization and functions, and the rules of legal ethics and disciplinary action. It also includes an understanding of the relationship that exists between an attorney and her client, with all its complexities. To the extent that questions of professional responsibility arise in the context of procedural or evidentiary issues, the applicable Federal Rules of Civil Procedure and Evidence will also be taught.
Credits: 3

LAW-687: Professional Responsibility

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Credits: 3

LAW-689: *Race, Law & Change

This course examines the idea of race as a constitutive element of modernity, focusing specifically on its impact on the intellectual underpinnings of historical and contemporary American legislative and judicial doctrine and public policy. In this context, our course considers a broad range of comparative judicial, legislative, administrative, policy and political concepts and strategies that might be most effective in vindicating and advancing human and civil rights.
Credits: 1

LAW-692: Remedies

This course focuses on teaching the four major categories of remedies- Damages, Equity, Restitution, and Declaratory remedies- along with an exploration of various types of ancillary remedies.
Credits: 4

LAW-700: Independent Study

See Student Handbook for information on enrolling in an Independent Study. Verify the deadlines for independent study, which are noted in the Howard University School of Law Academic Calendar. Once you have completed these steps, see Dean Olivares for information on how to continue the faculty and committee approval process.

Credits: 4

LAW-705: Civil Rights Planning

This course is an introduction to the practical, procedural, and substantive planning engaged in by lawyers helping to develop remedies for violations of the rights of minorities and women. These remedies include litigation, legislative and regulatory advocacy, demonstrations, and public information campaigns. Students will write a research paper on the strategy and tactics of civil rights lawyering, based not only on library work but also on interviews with civil rights practitioners. Our focus for this year will be "trouble spots" like racial profiling, hate crimes, discrimination against consumers, employment discrimination, voting rights, housing discrimination and discrimination in public education. We will also look at citizen action and access to local government.

Credits: 3

LAW-706: General Externship

This seminar is devised to complement your externships. Because students have chosen a wide variety of placements, a key objective of this class will be to explore topics within the public interest community from policies and practice to the treatment of the poor. You will be graded on a Pass/Fail basis. Students who successfully complete the seminar and externship placement will receive either 3 or 4 credit hours depending upon the number of hours per week they work at their placement.

Credits: 3

LAW-710: *Broker/Dealer Regulation

This course is designed to examine the regulatory framework of brokers and dealers imposed through the federal securities laws and the regulations and rules adopted by self-regulatory organizations (SROs). The course will cover the role of the Securities and Exchange Commission ("Commission") and its oversight responsibilities with respect to SROs, with an emphasis on the Financial Industry Regulatory Authority ("FINRA"). The rules of FINRA will be examined to determine how the securities industry regulates itself. This course will also evaluate the appropriate role of securities industry organizations in the regulatory framework of the US financial markets.

Credits: 2

LAW-718: Fair Housing Clinic I/II

The Fair Housing Clinic functions as a small nonprofit law firm within the law school. Accordingly, the expectations for class are similar to the expectations in a legal work environment.

Credits: 2

LAW-721: *Civil Rights Clinic I & II

The Civil Rights Clinic litigates on behalf of indigent clients in civil rights and social justice cases. Cases include a range of civil rights matters such as employment and housing discrimination, police brutality, denial of full voting rights, unconstitutional prison conditions, and procedural barriers that preclude indigent litigants from effective access to the courts. The pedagogical goal of the clinic is for students and faculty to critically examine the analytical and linguistic challenges of effective courtroom advocacy, the legal and strategic considerations of the appellate process, the ethical and professional obligations of client representation, and the social and political implications of civil rights advocacy.

Credits: 3

LAW-724: Trademark Law

This seminar provides students a deep exploration in the intellectual property topics of trademark.

Credits: 3

LAW-726: SEC Externship

The SEC Externship Program provides an exceptional opportunity for students to work as interns in the Washington, DC Headquarters of the Securities and Exchange Commission ("SEC"). Students work on many complex securities law matters under the close supervision and guidance of SEC staff lawyers, who also provide mentoring for students. Students attend educational seminars at the SEC led by senior Commission staff and prominent members of the securities bar and industry. Students also participate in classroom discussions regarding various securities market and securities law topics with an experienced securities lawyer one day each week.

Credits: 3

LAW-727: Education Law

This course will focus on the constitutional and statutory law that both constrains and empowers public elementary and secondary schools. The course will explore public education from two perspectives: that of the school and that of the student. General topics will include the parameters of public education, the legal and practical aspects of public school governance, and the rights and responsibilities of students.

Credits: 3

LAW-728: Copyrights

This course examines the body of jurisprudence that delineates the legal rights and relationships that arise in connection with the development, use, and protection of expressive intellectual endeavor which qualifies for protection within the federal copyright law. In addition to exploring the common law and statutory framework that embodies American copyright law, the course also emphasizes the social policy objectives of copyright property protection, including the stimulation of creative enterprise and the beneficial dissemination of such achievements. Students are especially encouraged to consider the unique questions that arise in connection with the application of traditional copyright principles to new technologies, including any special implications for the African American community and similarly dis-empowered or disenfranchised groups.

Credits: 3

LAW-736: Securities Regulation I

This course will focus on the basic principles and structure of securities regulation in the U.S. Specifically, the course will cover federal cases, statutes, rules, and regulations that govern the federal securities markets, including the Securities Act of 1933 and the Securities Exchange Act of 1934.

Credits: 3

LAW-738: IRS Externship

This externship gives practice and classroom learning experience for students interested in working with or in the IRS agency.

Credits: 2

LAW-743: *Environmental Externship

Howard University School of Law's Externship Program provides students the opportunity to partner with leading environmental institutions throughout the United States, including established collaboration with Environmental Defense Fund (EDF) and Natural Resources Defense Council (NRDC). NRDC is a nationally recognized environmental advocacy and litigation firm with a variety of initiatives in many areas of environmental and public health. EDF is an organization guided by science and economics with a global mission to preserve the natural systems on which all life depends.

Credits: 4

LAW-751: *Sales

This Sales Law course combines the law of sales and its application to transactions and problems. Often attorneys must advisie clients about buying, selling, exporting, importing and financing the sale of goods, as well as about dispute settlement. This course offers a basic overview of US sales law (primarily Article 2 of the Uniform Commercial Code and the United Nations Convention on the International Sale of Goods) and recent developments. For an informed familiarity with sales law, several supplemental resources will be consulted, e.g., UNIDROIT, UNCITRAL, OHADA, and the Hague Conference . The course will use selected Problems in the casebook to analyze the law and its application to resolve issues confronting practicing attorneys. These exercises will involve reading, understanding, analyzing and applying the statutory texts and supporting authorities, then presenting the results in class discussions or in individual presentations.
Credits: 2

LAW-757: Advanced Externship

The Advanced Externship Program is an option for students who have already successfully completed the General Externship Program (either during the academic year or summer) and are interested in pursuing a second externship placement. Students who wish to remain at the same placement must submit a brief memo to the Director of Experiential Learning explaining how their learning goals will differ from their prior semester and why their learning goals cannot be achieved through doctrinal or clinical offerings at the law school.
Credits: 3

LAW-760: Trial Advocacy – Civil

In Civil Trial Advocacy students participate directly in three civil trials using fictitious case files. on planning, trial strategy and tactics, opening statements, direct and cross examinations of witnesses, in limine and 403 motions, and closing arguments. In all sessions students are divided into plaintiff and defense teams. Students unassigned as counsel in class trial sessions function as witnesses and jurors and may be called on to perform skill drills. Judges preside over in-class trials and the concluding full-day trial. Cases will be deemed to take place in the Superior Court for the District of Columbia and will be tried under the Federal Rules of Civil Procedure and the Federal Rules of Evidence. Evidence must be taken as a pre or co-requisite course.
Credits: 2

LAW-764: LLM Writing- Advanced Legal Writing

Advanced Legal Writing is an intensive writing lab that builds on the skills you acquired in your first-year legal writing courses, using shorter and more varied assignments from transactional, litigation, and legislative practice.
Credits: 3

LAW-767: CD: Gender, Sex, Sexualities

This seminar will discuss and explore past and present legal formulations in Family Law and its treatment of gender, sex and sexualities. The course will focus specifically in marriage, families, reproductive rights, constitutional protections, criminalization practices and emerging fields of state regulation. The course will combine class discussions, written reflections, debates, and lectures. At the end of the semester, students must submit a paper examining a current family legal issue in terms of its social implications for gender, sex and sexual policies.
Credits: 3

LAW-769: CD: Business Organizations

Organizations" is the second course that develops your substantive foundational course in business law. The principal course is Agency, Partnerships, and LLC. Apart from common law business organizations, statutory organizations like LLCs are statutory. Despite a federal regulatory presence, state statutory law and common law rulings govern this study. In this course, agency law, the indispensable substantive law on which all businesses, is a substantive core of business law. Once we've understood this substantive core, we will carry that understanding over to partnership, corporations, and limited liability companies. Although corporate entities, joint ventures, trusts, s-corporations, and c- corporations will be present in the substantive materials, we will exclusively devote our focused learning to agency law, partnerships, LLCs, and publicly traded and closely held corporations, and securities regulations and litigation.
Credits: 3

LAW-770: CD: National Security Law

This seminar provides a deep learning and writing experience for students interested in all aspects of national security law and practice.
Credits: 3

LAW-771: Commercial Law

This is a survey course examining the legal issues arising in the sale of goods (UCC Article 2), and the legal relationship between debtors and creditors whose credit transactions are secured by personal goods (UCC Article 9). This course also covers bankruptcy law, which is closely related to Article 9. Related areas of law and aspects of commercial and business practices will be discussed, as appropriate. This course is intended to provide a broad overview of commercial law for students who do not intend to practice commercial law, but who nevertheless wish to obtain a significant exposure to the structure and operation of the Uniform Commercial Code, as well as to fundamental commercial law and business practices.
Credits: 2

LAW-771: Commercial Law

This is a survey course examining the legal issues arising in the sale of goods (UCC Article 2), and the legal relationship between debtors and creditors whose credit transactions are secured by personal goods (UCC Article 9). This course also covers bankruptcy law, which is closely related to Article 9. Related areas of law and aspects of commercial and business practices will be discussed, as appropriate. This course is intended to provide a broad overview of commercial law for students who do not intend to practice commercial law, but who nevertheless wish to obtain a significant exposure to the structure and operation of the Uniform Commercial Code, as well as to fundamental commercial law and business practices.
Credits: 2

LAW-772: Federal Criminal Civil Rights

This course covers the constitutional and historical development of the most significant Federal Criminal Civil Rights statutes that are used to prosecute police brutality, and studies other applications of those statutes to other forms of misconduct that warrant criminal prosecution. (e.g. a state judge that coerced female litigants into sexual activity). The course also covers the origin and development of the Federal Hate Crimes statutes. In addition, the course explores the stated discretionary policies of the US Department of Justice concerning inter alia, under what circumstances should federal protection go forward after the matter has been judicially resolved or otherwise determined by the state court system.
Credits: 4

LAW-773: CD: Selected Topics in K-12 Discipline

This seminar offers students an opportunity to work to understand topics of education law, including aspects of constitutional law and criminal justice.
Credits: 3

LAW-779: *CD: Juvenile Justice

The course examines the history and legal framework governing the juvenile legal system in the United States. Coursework includes substantive and practical analysis of the juvenile legal system, including status offenses, delinquency matters, intersectionality of delinquency and child welfare, diversion programs, and restorative practices. Coursework also includes an analysis of the causes, dynamics, and consequences of juvenile delinquency, an understanding of adolescent brain development, systemic and structural influences on delinquency, prevention and intervention considerations, and the cradle-to-prison pipeline. Students also will analyze and research current legal and systemic issues and propose alternative responses to micro- and macro-level injustices. Students also will examine issues of race, class, gender, and economic status in the juvenile legal system.

Credits: 1

LAW-781: IP/ Patent Law Clinic I & II

The IP Patent Clinic is a course where students interact with inventors or designers, and prepare actual patent applications which will be filed for inventors under the supervision of licensed a Patent Attorney. The students will be assigned an invention disclosure. They will work directly with the inventor(s) to draft a patent application covering the invention. The patent application worked on by the student can include design patents. The inventors or designers in need of the preparation of a patent application are generally from the local community in need of pro bono representation. Students will be instructed as to best practices with regard to meeting with the inventor(s) and drafting the patent applications. They will then be critiqued regarding their written applications. The patent applications will be written in stages, including drawings, claims, and specification, with critique on each step in the process.

Credits: 2

LAW-789: Howard Law- WBG ADR Externship Program

The Program is a unique collaboration between the Law School ADR Clinic and the General Externship Program, to provide Howard Law students with a capstone ADR experience. Through this program, students are afforded an experiential opportunity to learn how alternative dispute resolution mechanisms function in an international organization. Activities include engagement in mediation services, internal investigations, neutral administrative dispute resolution, and leadership building.

Credits: 3-8

LAW-804: Criminal Justice Clinic

Students represent indigent members of the community charged with misdemeanor offenses in DC Superior Court. Students are responsible for all aspects of the representation of the client, under the direct supervision of the CJC faculty, including preparation for presentation of the case at all stages of the proceeding. Such preparation includes, but is not limited to, client and witness interviews, interaction with the Office of the United States Attorney and the Metropolitan Police Department, legal research and the drafting and filing of litigation pleadings. Students also appear in court at pretrial hearings, trials, sentencing proceedings, and parole revocation hearings.

Credits: 3-12

LAW-805: *Howard Law Journal

Founded in 1955, the Howard Law Journal is a student-managed, faculty-supervised academic program of the Howard University School of Law. The Journal is the principal scholarly publication of Howard University School of Law. The Journal is published in one annual volume consisting of no less than three issues that contain articles, essays, and book reviews authored by legal scholars, as well as notes and comments authored by Howard Law Journal members. Consistent with the mission of the law school, the Journal is dedicated to promoting the civil and human rights of all people, in particular those groups who have been the target of subordination and discrimination. During their two-year membership, Journal members are afforded a unique scholarly and analytical experience by performing substantive and technical editorial work. Student editors make all editorial and organizational decisions and, together with a professional business manager, carry out the day-to-day operations. Journal membership also allows students the opportunity to produce thoughtful, intelligent legal analysis and the ability to communicate that analysis through excellent legal writing.
Credits: 3-6

LAW-806: CHH-National Moot Court Team

This course is offered to all students who compete and are accepted on to the CHH National Moot Court Team. The course examines various appellate issues and prepares students for appellate writing and oral argument. Once on the team, students will be provided with appellate training in the form of course work over the Summer and Fall semesters. This training will prepare them for competing in external competitions in the Spring semester.
Credits: 6

LAW-807: International Moot Court Team

This course prepares various international moot court teams competing on behalf of Howard University School of Law around the world. The course includes lectures on developing trends in contemporary international human rights law. The course also focuses on developing the oral, writing, and research skills needed to compete in some of the world's toughest international moot court competitions. Howard University School of Law's International Moot Court Team competes in some of the world's largest and most prestigious competitions during the spring semester Competitions include The Philip C. Jessup Moot Court Competition, which is the largest moot court competition dedicated to public international law in the world as well as the U.S. Nepal International Moot Court Competition hosted by the U.S. Embassy in Kathmandu.
Credits: 4-2

LAW-810: Investor Justice & Education Clinic (I & II)

Student Attorneys are assigned investor cases and pursue claims against some of the largest financial services companies in the nation, as well as their brokers and investment advisers. Students will handle cases involving a variety of financial products and transactions including stocks, bonds, mutual funds, exchange traded funds, stock options, Real Estate Investment Trust ("REITs"), variable annuities, limited partnerships, and initial public offerings. Students also work as a team with other Student Attorneys to develop and conduct investor education programs around Washington, DC area. Students the one semester IJEC program, can return as an Advanced Student in the IJEC II program for a second semester.
Credits: 2

LAW-811: *IP/Trademark Clinic I & II

Howard University School of Law participates in the United States Patent and Trademark Office's (USPTO) Law School Clinic Certification Program (Trademarks). As a result, this 3-credit semester-long course was created, for which a maximum of ten (10) students will be selected. The IP & Trademark Clinic course includes a classroom seminar and actual client representation. The one time per week, two-hour classroom seminar includes a review of trademark law & federal registration procedures. The practice includes the representation of individuals and small businesses in their efforts to secure federal trademark registrations with the USPTO. Student-attorneys are responsible for all aspects of representing clients, under the direct supervision of the IPTC faculty. The practice includes, but is not limited to: adhering to the USPTO's ethics rules; client interviewing and counseling (e.g., gathering information; reviewing & reporting-out Office Actions & Notices); trademark selection and clearance (e.g., conducting searches; ordering & reviewing search reports; rendering availability opinions) and all aspects of preparing, filing & prosecuting trademark applications before the USPTO (e.g., reviewing Office Actions and drafting responses thereto, and legal research). Students are also required to meet with IPTC faculty once per week for 30 minute supervisory meetings.
Credits: 2

LAW-815: CD: International Trade & Development

This course discusses the unique laws surrounding international trade and the development of global economies.
Credits: 3

LAW-817: *Howard Human & Civil Rights Law Review

Founded in 2015, Howard Human & Civil Rights Law Review ["HCR"] is a student-managed, faculty-supervised law review published by the Howard University School of Law. HCR focuses on issues related to human rights, civil rights, and international law. HCR holds an annual Symposium related to these issues, with the keynote speaker giving the C. Clyde Ferguson Jr. Lecture. HCR publishes an annual volume of the lectures given at the Symposium, together with articles from eminent scholars and practitioners, a student Note written by the winner of the Pauli Murray Prize, a nationwide competition for the best student Note on human and civil rights.
Credits: 3-6

LAW-819: Bar Skills

This course is designed to help students develop the problem solving and analytical skills necessary to maximize scores on each portion of the bar exam. It will assist students in developing writing and multiple choice testing competency sufficient for any bar exam. This course is a skills-based course, and not a course in substantive law. For substantive review, consult substantive outlines and coursework.
Credits: 3

LAW-821: DC Law Students in Court-Civ Litigation

This course is an overview of the structure and function of court systems in the United States. Emphasis will be placed on the relationships between state and federal courts within the context of judicial decision making.
Credits: 12

LAW-822: CD: Law, Economics & Capitalism

This seminar provides students a broad view of business law and economics.
Credits: 3

LAW-823: Private Equity & Hedge Funds

This advanced seminar gives students an in-depth learning experience in corporate law practice.
Credits: 3

LAW-824: Lawyer's Committee/ Civil Rights Litigation

This seminar provides a practice-based learning experience for students interested in the broad array of litigation opportunities in civil rights law.
Credits: 3

LAW-826: Environmental Justice Center Research and Advocacy

This course provides students an opportunity for students to put into practice the material they have learned in their environmental law courses.
Credits: 6-4

LAW-841: CD: Movement Lawyering Clinic

This clinic gives students an opportunity to practice many aspects of civil rights law in both local and national settings.
Credits: 3

LAW-841: CD: Movement Lawyering

The Movement Lawyering Clinic advocates on behalf of clients and communities fighting for the realization of the civil and human rights guarantees promised by the United States Constitution and International Human Rights treaties. Projects address a range of matters, including police brutality, racial justice, mass incarceration and unconstitutional prison conditions, and other concerns that implicate core constitutional and human rights. This clinic focuses on advocating for systemic change using policy projects, advocacy in front of domestic and international tribunals, and other movement lawyering techniques.
Credits: 3

LAW-841: CD: Movement Lawyering Clinic

This clinic gives students an opportunity to practice many aspects of civil rights law in both local and national settings.
Credits: 3

LAW-842: CD: Movement Law. Clin. II EXP

A continuation of LAW-841. This interactive workshop will introduce participants to the theory and practice of "movement lawyering," and is designed to assist lawyers and law students in becoming better equipped to participate within mass movements and support grassroots organizing. Topics to be covered include: what is movement lawyering and why is it necessary, working with grassroots organizers, lawyering for power-building, how lawyers often fail social movements, how legal strategies fit alongside other social change strategies, and the disconnect between conventional legal training and the skills needed to support social movements. Several of the most effective movement lawyers and grassroots organizers in the country will participate as guest speakers.
Credits: 6

LAW-843: CD: Mergers & Acquisitions

This course covers the law applicable to mergers and acquisitions, including takeover law. We will often use cases as much as vehicles to become familiar with deal terms and practices as for their substantive holdings. The purpose of this course is to familiarize students with what transactional lawyers do, i.e., what their clients negotiate about, what resolutions are achieved, how clients choose who they wish to contract with, and who they wish to spurn. What transactional lawyers do is informed as much by norms in the broader transacting community, economic principles of relationships, and bargaining, as it is by law.
Credits: 3

LAW-844: CD: The Black Family: Growth, Stability & Implications

This seminar explores a range of topics affecting families and the neurobiological foundations that affect Black families, in particular.

Credits: 3

LAW-845: *CD: Reentry Clinic

The Reentry Clinic combines individual representation with policy work around the central theme of mass incarceration. This course investigates some of the drivers, including long sentences and collateral consequences of arrests and convictions. Under direct supervision, this course affords the opportunity to represent clients in record sealing matters in D.C. Superior Court and participate in policy advocacy as well. This semester students will focus on a new law that increases access to occupational and professional licensing for returning citizens in the district. Students will work on community outreach including designing a community step-by-step education guide or designing an educational video to inform the community regarding the new occupational licensing statute in DC. Under direct supervision, this course affords the opportunity to represent clients in record sealing matters in D.C. Superior Court and participate in policy advocacy as well. This semester students will focus on a new law that increases access to occupational and professional licensing for returning citizens in the district. Students will work on community outreach including designing a community step-by-step education guide or designing an educational video to inform the community regarding the new occupational licensing statute in DC. Students can expect to develop an extensive array of lawyering skills, including interviewing and counseling clients, developing case histories, maintaining case files, investigating cases, and developing effective oral and written advocacy. You will gain an expertise in how to read statutes, particularly the District's record sealing regime and new occupational licensing law. The classroom component of the clinic will focus on skills development such as storytelling, problem-solving and developing case theories, but will also focus on broader systemic reentry challenges due to race and social inequality in the criminal justice system. Individual case rounds are designed to develop oral advocacy skills. Students will work collaboratively with local and national reentry groups to identify and promote effective reentry strategies.

Credits: 3

LAW-845: *CD: Reentry Clinic

The Reentry Clinic combines individual representation with policy work around the central theme of mass incarceration. This course investigates some of the drivers, including long sentences and collateral consequences of arrests and convictions. Under direct supervision, this course affords the opportunity to represent clients in record sealing matters in D.C. Superior Court and participate in policy advocacy as well. This semester students will focus on a new law that increases access to occupational and professional licensing for returning citizens in the district. Students will work on community outreach including designing a community step-by-step education guide or designing an educational video to inform the community regarding the new occupational licensing statute in DC. Under direct supervision, this course affords the opportunity to represent clients in record sealing matters in D.C. Superior Court and participate in policy advocacy as well. This semester students will focus on a new law that increases access to occupational and professional licensing for returning citizens in the district. Students will work on community outreach including designing a community step-by-step education guide or designing an educational video to inform the community regarding the new occupational licensing statute in DC. Students can expect to develop an extensive array of lawyering skills, including interviewing and counseling clients, developing case histories, maintaining case files, investigating cases, and developing effective oral and written advocacy. You will gain an expertise in how to read statutes, particularly the District's record sealing regime and new occupational licensing law. The classroom component of the clinic will focus on skills development such as storytelling, problem-solving and developing case theories, but will also focus on broader systemic reentry challenges due to race and social inequality in the criminal justice system. Individual case rounds are designed to develop oral advocacy skills. Students will work collaboratively with local and national reentry groups to identify and promote effective reentry strategies.

Credits: 3

LAW-847: CD: Information Privacy & Data Security

This seminar will explore the rapidly evolving fields of information privacy and data security law, with an emphasis on consumer rights, theories of consumer harm, and the role of technology in both exposing and protecting personal information.

Credits: 3

LAW-848: Asylum & Refugee Law

This course will cover international and U.S. refugee law, with a focus on asylum law in the United States. The course will examine the history of the U.N. Convention on the Status of Refugees, the implementation of that convention through the U.S. Refugee Act of 1980 and subsequent related legislation, political and judicial efforts to define the extent of the protections afforded under international and domestic law, current proposals to amend the laws, and the practices of asylum law in the United States. It examines the international origins of Refugee Law, the meaning of well-founded fear, and the definition of persecution. It analyzes the protections against persecution on account of political opinion, religion, race of nationality, and a social group. The central goal of this course is to help students understand the legal and policy issues affecting asylum-seekers. We will make connections throughout the semester between local asylum issues and national and global issues. By the end of the course, students will understand U.S. and international law and procedures concerning refugees, identify and practice the skills you will need in order to meaningfully engage with clients seeking asylum, and identify issues in law and policy that your generation of lawyers must struggle with, and hopefully resolve.

Credits: 2

LAW-850: *Introduction to Investment Management

In this class, you will learn the many ways that money managers, portfolio managers, asset managers and other investment advisers can get themselves into trouble with the SEC and criminal prosecutors. Better yet, the class is also about how investment advisers can avoid getting themselves into trouble.

Credits: 3

LAW-851: *CD: Equality According to Pauli

This upper-level seminar will cover subjects including the following: (1) constitutional race, sex, and gender equality; (2) employment discrimination and Title VII of the Civil Rights Act of 1964; (3) race, sex, and voting rights (including the Fifteenth and Nineteenth Amendments and the Voting Rights Act of 1965); (4) juries (both jury service and fair trial rights); (5) intersectionality/multidimensionality and the law; (6) identity; (7) feminist legal theory; (8) Black feminisms (including Critical Race Feminism); (9) civil and human rights; (10) education (including Title IX); (11) poverty; (12) parenting, reproduction, and morality; (13) public accommodations; and (14) social justice lawyering. This course will reinforce the law of constitutional equality covered in Constitutional Law II and present Pauli Murray's words and work as part of the larger narrative about equality as a matter of contemporary legal doctrine and theory.

Credits: 3

LAW-852: *CD: FOIA: An Examination of the Trump Years

The federal Freedom of Information Act (usually referred to as FOIA) was originally enacted in 1966 as an amendment to §3 of the original Administrative Procedures Act. The FOIA imposes on federal agencies three types of disclosure requirements, codified in §552(a)(1), (a)(2), and (a)(3). Section 552(a)(1) requires federal agencies to publish certain information in the Federal Register. Section 552(a)(2) requires federal agencies to make certain other information "available for public inspection and copying." Section 552(a)(3) requires federal agencies to disclose, "upon any request," information that has not been made available under subsections (a)(1) or (a)(2). Section 552(a)(3) is what entitles people to file what are called "FOIA requests" and the statute establishes nine exemptions from this requirement in §552(b). The course will, however, focus primarily on those exemptions deemed controversial. It will, therefore, examine and analyze the approach taken by the Trump administration in both complying with §552(a)(3) and invoking the exemptions of §552(b) by reviewing the President's Executive Orders and the guidelines issued by the various government agencies. It will also review the role of the judiciary by examining and analyzing several recent Supreme Court and other federal court decisions. Consequently, the required seminar papers will be focused on analyzing the federal government's approach to transparency during the Trump administration, and the role, if any, that "politics" played in the interpretation and the application of the statute.

Credits: 3

LAW-853: *CD: Regulatory State - LW3

The Regulatory State course explores how administrative agencies make law. It focuses on political control and influence over administrative agencies, and how political control and influence affects the content of the law that agencies produce. But to understand the politics of administrative agencies, one first has to understand something about the law that governs them.

Credits: 3

LAW-856: Entertainment Law

This experiential course focuses on developing the foundational expertise required for proficiency in handling legal issues specific to the entertainment industry. We will examine principles of contract, tort, employment, labor, copyright, and trademark law, as applied to television, film, music and other segments of the entertainment industry. Students will analyze real and hypothetical case scenarios in the context of exploring legal strategies for meeting client objectives and drafting pertinent agreements and/or litigation pleadings throughout the semester. Readings will be drawn from the required text and selected supplemental materials to be provided. Course performance is primarily measured by performance on final drafts of interim assignments and on the capstone assignment.

Credits: 3

LAW-858: Advanced Torts

This 2-hour course explores Advanced Torts with a Product Liability emphasis. Product Liability is the principle governing damages for wrongs that are non-contractual (i.e., legal responsibility for losses not grounded in contract). This course will comprehensively review and explore the circumstances and theories under which liability and damages may be imposed upon those who sell products that are unreasonably dangerous because they are defectively designed, manufactured, or have inadequate warnings or instructions.

Components of this course will include reading, class discussion and practical exercises that develop and shape legal analysis, reasoning, strategy and advocacy from the perspective of both Plaintiffs and Defendants. Practical exercises will be comprised of oral (and written) presentations that, among other things: 1) focus on skill sets and techniques to present extremely complex information to juries; 2) explore jury selection strategies; and, 3) address the challenges that arise when trial testimony is largely dependent on doctors, scientists and engineers as witnesses.

Credits: 3

LAW-862: Habeas Practicum

In the seminar, students will be introduced to basic aspects of habeas law, a unique field that uses civil law to challenge wrongs in the criminal and immigration sectors of the American legal system. All students will be expected to attend a weekly 2-hour seminar via Zoom that will introduce basic habeas concepts. The seminar will incorporate hands-on learning to teach the theories of habeas law to prepare students for their work in the practical component of the course. As part of the seminar, students will be asked to work on a practice problem based off a real case. Throughout the course, students will need to submit an outline of their work, an initial draft, and a final draft of the pleading. Christina and Emily will work with students to provide individualized feedback on the outline and first draft of the problem. In addition, we will provide some time at the end of the seminar sessions to discuss the problem and how it relates to either students' practicum work or the theoretical work of the seminar.

Credits: 2

LAW-863: Morality of Intellectual Property

In this seminar we will delve into the philosophical underpinnings of intellectual property law and examine moral conflicts and questions that arise in the context of granting, enforcing, and disallowing intellectual property rights and related intangible rights. Sample topics include: patent law impact on access to healthcare, farming, and food supply; privacy issues and ownership of rights relating to medical innovations derived from patient tissues; and the scope of moral rights granted under the Copyright Act. Other topics selected by students for their required scholarly paper may be incorporated into the seminar by student-led discussions. Readings will be drawn from selected cases, articles, and essays, in addition to the required text on scholarly writing for law students. Course performance is primarily measured by timely submission of milestone assignments and quality of final draft of scholarly paper.

Credits: 3

LAW-865: Sports & Social Justice Law

This course focuses on the importance of social justice activism and its intersection with the legal and sports industries. This course will address contemporary Sports and Social Justice topics and case studies based on historical examples of athletes who leveraged their personal brands and platforms anchored primarily in sport to promote racial equity and social justice in the United States. The course has four key objectives: (1) to provide an historical overview of the athlete as a social activist, (2) to highlight the power of sport to drive social justice, racial equity, and civic engagement, (3) to examine the power of the partnership between athletes and lawyers as social engineers, and (4) to provide law students with historical legal perspectives, foundational legal skills, and new capabilities to best serve and amplify the voice and impact of the athlete activist client.

Credits: 3

LAW-890: Trial Advocacy Moot Court Team

This co-curricular course focuses on developing trial lawyers and preparing students to compete against other law schools in trial competitions. There is a strong emphasis on the application of Federal Rules of Evidence, developing persuasive arguments and trial advocacy skills. Students will be required to have a basic understanding of both civil and criminal procedures and how they apply to trial practice.

Credits: 1-2

LAW-900: Thesis

Thesis guidance for students.

Credits: 3

LAW-902: Sustainable Development Planning

This course is an introduction to the practical, procedural, and substantive planning engaged in by lawyers helping governments and nongovernmental organizations that seek to balance economic and social development with conservation of natural resources and also promote environmental stability in developing countries and in underdeveloped regions of developed countries. Students will write a research paper on the strategy and tactics of lawyering for sustainable development, based not only on library work but also on interviews with practitioners. Our focus for this year will be the widening gap between rich and poor and the social conflict and escalating environmental disturbance associated with it.
Credits: 1

LAW-917: Sports Law

This course will provide theoretical groundwork and experiential opportunities for students interested in serving as in-house counsel in professional sports for companies like unions, leagues and teams, as well as media companies in television, live events and social media. We will cover topical issues ranging from states legalizing sports gambling, to the impact of social media on celebrities and the organizations that represent and employ athletes. Each class meeting will be split between, first, substantive business and legal issues pertaining to sports, media and entertainment, and second, skills-based exercises, workshops and guest lecturers. The latter will include live mock negotiations, oral advocacy, presentation of executive strategic plans and real-time business problem solving. This course is designed to provide relevant knowledge and hands-on experience for students interested in sports, media and entertainment. It is also designed for students who simply have an interest in the topics and would like to gain negotiation, drafting and advocacy experience.
Credits: 3

LAW-925: CD: Workforce Development

The Workforce Development seminar/skills course considers the question: What does it take to build a pipeline from "poverty" to prosperity for historically economically disadvantaged people? The course does not presuppose that there is one correct answer. Instead, by exploring the problems that have created and maintained economic disparities and the tools that traditionally have been used to address it, the course aims to begin to equip students with the skills to develop models for possible solutions. Students in the course will have an opportunity to volunteer to participate in the Inside/out portion of the class, in which 5 classes will be held inside the DC jail and attended by incarcerated individuals. "The Inside-Out Prison Exchange Program is an educational program with an innovative pedagogical approach tailored to effectively facilitate dialogue across difference. It originated as a means of bringing together campus-based college students with incarcerated students for a semester-long course held in a prison, jail or other correctional settings. While those core Inside-Out Prison Exchange courses have been replicated across the United States and in multiple countries since its inception nearly 20 years ago, the program has expanded into a variety of other forms of educational and community-based programming. It also has grown into an international network of trained faculty, students, alumni, think tanks, higher education and correctional administrators, and other stakeholders actively engaged with, and deeply committed to, social justice issues." http://www.insideoutcenter.org/about-inside-out.html
Credits: 1

LAW-928: *Child Welfare/Family Justice Clinic

Howard Law's Child Welfare Clinic (CWC) is designed to introduce students to a broad array of advocacy and advisory skills and substantive law to enable them to provide direct legal representation to parents who have or are alleged to have neglected or abused their children in a way that has resulted in state intervention. The Clinic is an eight (8) credit, year-long course and enrolls up to 12 students per year. Admission preference will be given to those students currently participating in our previously established Family Law Certificate Program. CWC combines classroom instruction with case work. Students will attend three hours of classroom instruction per week, to include the necessary law, legal, ethical and advocacy training and skills required to successfully represent adults involved in child abuse and neglect cases, including Client Interviewing Skills, Trial Advocacy Skills, Family Division Practices and Procedures, DC Rules of Professional Conduct, DC Code Title 16 and Child Abuse & Neglect Attorney Practice Standards. Classes will also include case rounds, analysis of ethical, strategic and client representation issues, litigation planning and litigation skill development. Students will work on cases appointed to the Clinic by the Family Court Division of the District of Columbia Superior Court and accepted by the Supervising Attorney. Students will work on actual court matters with assignments to include interviewing clients by telephone and in person, case analysis and adherence to Child Abuse and Neglect Practice Standards. Case work includes factual investigation and research of various issues and claims, court appearances, team meetings with other service providers, and community outreach projects, as well as research and preparation of pleadings, motions, memoranda, and oral arguments on relevant pending cases. Students staff the intake system (which is an integral component of the clinical program at Howard Law) by devoting in-office hours each week to the Clinic and which include interviewing and triage of requests for representation which come from write-ins, walk-ins, e-mails via our clinical program's Web site www.law.howard.edu, and referrals from outside organizations.
Credits: 3-8

LAW-935: *Food Law

This Food Law & Policy course will familiarize students with the basics of food law (e.g., standards, labeling and date marking, quality and safety) and today's principal food law and policy issues (e.g., food and health, access to adequate food and food deserts, emerging technologies and developments). In studying these issues, the class will learn the legislative, regulatory and judicial responsibilities of federal and state governments, and the roles and responsibilities/liabilities of food companies, civil society and public private partnerships. All are influenced by the global nature of the food supply, international regulations and food cultures. Students will have the opportunity to apply their knowledge of food law to address a current practical issue, either domestic (e.g., advising a business interested in opening a small retail food store or farmer's market in a food desert in Washington, D.C.) or international (e.g., advising an exporters' cooperative planning to export a spice or fish product to the U.S.) The contributions of each student in the group will include a short legal memorandum (750-1000 words) delivering legal advice about an assigned issue, to be presented in a classroom presentation. In addition each student must submit a 12-15 page legal research paper developing the student's legal memorandum.
Credits: 6

LAW-941: CD: Bar Skills

This course is designed to prepare you for the bar exam by focusing on skill development. Specifically, you will receive in-depth skill instruction on reading comprehension, issue identification, rule mastery, critical thinking, legal analysis and recognition of distractors.
Credits: 2

LAW-942: Arbitration: 21st Century Litigation

*note to students that this course was called Modern Law of Arbitration. Students cannot take this course if they took that course.
Credits: 3

LAW-946: Current Topics in Patent Law

This seminar provides students a detailed look into the issues surrounding the law of patents and other topics in intellectual property.

Credits: 4

LAW-947: CD: Bar Skills (MBE)

This course is designed to prepare you for the bar exam by focusing on skill development. Specifically, you will receive in-depth skill instruction on reading comprehension, issue identification, rule mastery, critical thinking, legal analysis and recognition of distractors.

Credits: 2

LAW-948: CD: Bar Skills / Essay Writing

This course will provide students with strategies and tactics needed for success on the essay portion of the Bar Exam. It will also enhance essay writing skills for law school. This course will begin with an overview of the essay portion of the Bar examination, followed by specific writing approaches, outlining and issue spotting techniques, time management strategies and essay writing using actual bar exam essays. Essays will be reviewed in class and submitted for grading. This course will also serve as a refresher to selected subjects tested on the essay portion of the Bar exam.

Credits: 2

LAW-951: CD: Title VI, Civil Rights and the Environment

This seminar provides a full exploration of environmental justice issues affecting communities.

Credits: 3

LAW-973: Housing Discrimination

This course provides students with an opportunity to delve more deeply into the areas surrounding discrimination in housing law and policy.

Credits: 3

LAW-993: Family Law Practice

Family Law will provide the student with a practical analysis of family law through a study of case law and in class discussion.

Credits: 3

LAW-993: Family Law Practice

Family Law will provide the student with a practical analysis of family law through a study of case law and in class discussion.

Credits: 3

LAW-996: CD: Child, Family & State

In this course, we'll examine the socio-legal and neurobiological issues that arrise when parents or other guardians and the state disagree about decisions involving the care, the conduct, disciplinary approaches, and the well-being of children. We'll also consider the dynamics that arise when children become old enough to take responsibility over their decisions in which the state and the parents take an interest, and when a guardian ad litem or other representative speaks for/as the child. Seminar issues may include: the allocation of power between parents and state; the authenticity of a child's voice; protecting children from abuse and neglect; adolescent (mental) health care; adoptions; and state-enforced limitation of the liberty of minors; juvenile delinquency. But we cannot best understand these issues, unless we also fold in the social, cultural, psychological, and neurobiological contexts, which form the multivariate factors in which parents and children live. Such factors suggest ecology, and apart from legal and interdisciplinary readings, we'll also read neuroscience, which tells us that the architecture of children's brain is positively affected by specific experiences of love and security, fear and threat. Likewise, a child's brain development can be negatively affected by early childhood adversities like loss, abandonment, fear, rejection, pain, violence, etc. Basically, then, these issues and factors flow from the earliest attachment experiences between caregivers and children, issues that remain throughout the adult's entire life. Accordingly, in this course, we'll take an interdisciplinary approach to understanding the issues and factors that affect families and the lives of parents and children.
Credits: 2

Law-996: CD: Child, Family & State

In this course, we'll examine the socio-legal and neurobiological issues that arrise when parents or other guardians and the state disagree about decisions involving the care, the conduct, disciplinary approaches, and the well-being of children. We'll also consider the dynamics that arise when children become old enough to take responsibility over their decisions in which the state and the parents take an interest, and when a guardian ad litem or other representative speaks for/as the child. Seminar issues may include: the allocation of power between parents and state; the authenticity of a child's voice; protecting children from abuse and neglect; adolescent (mental) health care; adoptions; and state-enforced limitation of the liberty of minors; juvenile delinquency. But we cannot best understand these issues, unless we also fold in the social, cultural, psychological, and neurobiological contexts, which form the multivariate factors in which parents and children live. Such factors suggest ecology, and apart from legal and interdisciplinary readings, we'll also read neuroscience, which tells us that the architecture of children's brain is positively affected by specific experiences of love and security, fear and threat. Likewise, a child's brain development can be negatively affected by early childhood adversities like loss, abandonment, fear, rejection, pain, violence, etc. Basically, then, these issues and factors flow from the earliest attachment experiences between caregivers and children, issues that remain throughout the adult's entire life. Accordingly, in this course, we'll take an interdisciplinary approach to understanding the issues and factors that affect families and the lives of parents and children.
Credits: 2

Law (EMBA)

XLAW-500: Legal and Ethical issues in Business

Treats the social, economic, and historical background of the law of contacts, property, sales, secured transactions, negotiable instruments, agency, partnerships, and corporations. The course will also discuss legal and ethical issues relating various organizations and industries such as health and medical, etc.
Credits: 3

Literature & Materials (I)

MUSC-005: Music Literature to 1600

Examines concepts, definitions, musical literature, trends, performance practices, and composers from antiquity to 1600.
Credits: 3

MUSC-006: Music Literature of the Baroque and Classical Periods

Study of symphony, chamber music, opera, and other forms from 1600 to 1830.
Credits: 3

Prerequisites:

MUSC-005.

MUSC-007: Music Literature of the Nineteenth and Twentieth Centuries

Analyzes styles, composers, and techniques from 1830 to the present.
Credits: 3

Prerequisites:

MUSC-006.

MUSC-008: African and Afro-American Music Literature

Explores traditional African music and American music influenced by the African idiom.
Credits: 3

Prerequisites:

MUSC-007.

MUSC-009: Intro to Ethnomusicology

The course examines the formation of ethnomusicology through a survey of its intellectual history, theories, methodologies, and research practices. We will read and discuss the works of major scholars in the field, and review their intellectual contributions.
Credits: 3

MUSC-010: Music History I: Antiquity to 1680

Explores concepts, definitions, musical literature, trends, performance practices, and composers from antiquity to 1680.
Credits: 3

MUSC-011: Music History II: The Eighteenth and Nineteenth Centuries

This course focuses on the study of symphony, chamber music, opera, and other forms from 1680 to 1880. It exposes students to core aesthetic concepts and musical repertoire from notated European and North American traditions.
Credits: 3

MUSC-012: Music History III: The Twentieth Century

Analyzes styles, composers, and techniques from 1880 to the present.
Credits: 3

MUSC-101: Music Literature of the Eighteenth Century

Examines changes from baroque to classical ideals, including the works of Bach, Handel, Haydn, Mozart, and

Beethoven.

Credits: 3

Prerequisites:

MUSC-008.

MUSC-102: Music Literature of the Nineteenth Century

Study of romanticism, beginning with the mature Beethoven.

Credits: 3

Prerequisites:

MUSC-008.

MUSC-103: The Symphony

Presents the origins and development of the symphony and related forms, including an intensive study of scores.

Credits: 3

Prerequisites:

MUSC-007.

MUSC-104: Chamber Music

Deals with string quartet literature and its antecedents, along with other chamber music forms from Haydn to Bartok.

Credits: 3

Prerequisites:

MUSC-008.

MUSC-105: Choral Music

Treats the emergence and growth of choral music and such related forms as the chanson and madrigal, with emphasis on the Afro-American contribution.

Credits: 3

Prerequisites:

MUSC-008.

MUSC-106: Dramatic Music

Covers such dramatic forms in music as the cantata, passion, oratorio, opera, and musical theater.

Credits: 3

Prerequisites:

MUSC-008.

MUSC-125: Introduction to African Music

Presents African life and culture with music as a focal point. No previous music training required.

Credits: 3

MUSC-155: Style Criteria

Examines styles, composition techniques, and performance standards of Western music from the seventeenth to the twentieth centuries.

Credits: 3

Prerequisites:

MUSC-008.

MUSC-156: Music Literature of the Twentieth Century

Treats techniques and trends from 1900 to the present, with special lectures and demonstrations by Composition faculty members.

Credits: 3

Prerequisites:

MUSC-008.

MUSC-161: Senior Seminar

Research projects assigned to seniors. Each student must complete one research project on an Afro-American subject.
Credits: 3

MUSC-162: Senior Seminar

Research projects assigned to seniors. Each student must complete one research project on an Afro-American subject.
Credits: 3

MUSC-204: Chamber Music

Deals with string quartet literature and its antecedents, along with other chamber music forms from Haydn to Bartok. (Graduate).
Credits: 3

MUSC-207: Individual Research

Directed by a member of the faculty. Students may receive credit for this course twice.
Credits: 3

Prerequisites:

Permission of faculty member.

MUSC-221: Vocal Literature

Study of music for solo voice from its beginnings to present, with consideration of literature for the voice teacher.
Credits: 3

Prerequisites:

MUSC-008.

MUSC-222: Vocal Literature

Study of music for solo voice from its beginnings to present, with consideration of literature for the voice teacher.
Credits: 3

Prerequisites:

MUSC-008.

MUSC-300: Graduate Seminar

Forum for the presentation of current research activities of graduate students, faculty, and guest speakers.
Credits: 3

MUSC-307: Individual Research in Music Literature

Directed by a member of the faculty.
Credits: 3

Prerequisites:

Permission of faculty member.

MUSC-311: Graduate Expository Writing Examination

It provides instruction and practice in critical reading, creative thinking, and clear writing. It provides additional instruction in analyzing and interpreting written texts, the use of written texts as evidence, the development of ideas, and the writing of both exploratory and argumentative essays. The course stresses exploration, inquiry, reflection, analysis, revision, and collaborative learning.

Credits: 1

MUSC-312: Oral Comprehensive Examination

an organized class that focuses on the final preparation of the thesis defense presentation and the thesis document of the graduate students in the Landscape Architecture program.
Credits: 1

Management (EMBA)

XMGT-500: Organizational Behavior and Leadership

Examines the principles, human resources, and structural framework involved in the organization and management of profit and nonprofit organizations. This operational approach to problem solving analyzes motivation, behavior, and executive leadership within the organizational framework
Credits: 3

XMGT-590: Strategic Management Capstone

This capstone course involves the formulation and implementation of corporate strategy. Topics include long-range planning, acquisitions and mergers, and business policy.
Credits: 3

XMGT-599: Management Consulting

This course offers a detailed view of the management consulting process and industry. Topics include the structure, conduct, and performance of the management consulting process. Course also covers a wide variety of topics that include how to build client strategy, identify and lead process improvements, and how to facilitate complex client interventions
Credits: 3

Management (GR)

GMGT-500: Organizational Management

This course is a study on managing people in the workplace, focusing on the important policies and processes associated with recruiting, hiring, training and evaluating personnel in order to achieve strategic organizational goals.
Credits: 3

GMGT-589: Advanced Management Consulting

Designed to equip you with the hard and soft skills required of successful consultants, whether working for a big named firm like Grant Thornton, Deloitte, or PwC, a regional firm, a boutique firm, or as an internal consultant for a traditional company. The skills you will develop are also transferable to general management, entrepreneurial endeavors, non-profit organizations and public agencies.
Credits: 3

Marketing (EMBA)

XMKT-500: Marketing Strategy

his course covers the theory and practices related to the management of the marketing function in business organizations. It examines how the marketing function interfaces with other business functions while emphasizing the planning and implementation activities required to attain marketing goals for the organization. Topics covered include the analysis of marketing opportunities, researching and selecting target markets, developing marketing strategies, operating in the international market, and planning and controlling marketing programs.
Credits: 3

Marketing (GR)

GMKT-500: Marketing Management

In this course, you will learn how businesses create value for customers. We will examine the process by which Marketing builds on a comprehensive understanding of buyer behavior to create value. You will learn the major elements of the marketing mix -- product policy, channels of distribution, communication, and pricing -- and see how they fit within different analytical frameworks that are useful to managers. This will enhance your understanding of how marketing works in the business world.
Credits: 3

GMKT-501: Marketing

This course studies the interacting business activities designed to plan, price, promote and distribute wantsatisfying products and services to present and potential customers. The course incorporates current developments in marketing to acquaint students with the present-day challenges of marketing activities.
Credits: 3

Master of Accounting

MACC-502: Advanced Cost Accounting

This course takes a user-oriented approach to the design of management accounting procedures and systems. The course also emphasizes the challenges and opportunities from new information technology and the new technology of modern operating and service processes. The course features the innovative management accounting developments that leading companies around the world are using, including activity-based costing and management, kaizen and target costing and the Balanced Scorecard.
Credits: 3

MACC-503: Corporate Financial Reporting

The objectives of this course are to 1) increase your familiarity with advanced financial reporting topics by considering the economics of selected transactions, 2) develop your understanding regarding whether and how treatment under generally accepted accounting principles captures the economics of those transactions and events, and 3) enhance your ability to rigorously evaluate corporate financial reports. The course builds on the concepts and methods introduced in Intermediate Accounting taking the perspective of both the user and the preparer of financial statement information. It examines in more detail the FASB/GAAP accounting model and the financial reporting environment, including management reporting incentives. The course focuses on contemporary reporting issues critical to understanding corporate financial statements, emphasizing the interpretation of financial statement disclosures and how this information is used by analysts to evaluate the financial health of a firm.
Credits: 3

MACC-504: Entity Taxation

This course presents the tax skills necessary to make business decisions regarding Corporations, Partnerships, Estates and Trusts. Emphasis is placed on such areas as organization and capital structure, earnings and profits, dividend distribution, redemptions, liquidations and reorganization of corporations. In addition, flow through entities such as partnerships and S Corporations will be studied along with estates, trusts, family tax planning and exempt entities. Practical application of the tax law will be emphasized with proper consideration placed on the historical, economic and political perspectives of the Internal Revenue.
Credits: 3

MACC-506: Advanced Auditing

Designed to broaden and deepen a student's conceptual and technical understanding of the attest function from an external and internal perspective. Provide a student with a framework for analyzing contemporary auditing and assurance issues. Auditing expertise will be developed by reading and discussing current academic and professional literature and by analyzing auditing case studies.
Credits: 3

MACC-507: Business Ethics for Accounting and Auditors

The globalization of business along with greater advances in technology has increased the complexity of ethical decision making in business. An understanding of business ethics has thus become a crucial element in the organizational environment. The purpose of this course is to help students improve their ability to make ethical decisions in business by providing them with a framework that they can use to identify, analyze, and resolve ethical issues in business decision making. In addition to individual decision making, business ethics and social responsibility are important parts of a firm's business strategy. Issues such as conflicts between personal values and organizational goals; the role of sustainability in business strategy; and the importance of stakeholder relationships, corporate governance, and the development of ethics programs and an ethical culture in an organization will be discussed.
Credits: 3

MACC-508: Governmental Accounting

The basic principles of fund accounting are covered, including the analysis of financial management systems applicable to local government units. Course will also introduce students to major pronouncements of the Governmental Accounting Standards Board (GASB). An introduction to government auditing is also provided, including a review of Government Auditing Standards, promulgated by the U.S. General Accounting Office (GAO). The Single Audit requirements for state and local governments will be covered, as well.
Credits: 3

MACC-509: Seminar in Accounting

This course provides selective analysis of current accounting topics addressing important issues in contemporary accounting practice.
Credits: 3

Master Of Public Hth Program

PUHE-205: Introduction to Epidemiology

This graduate-level course is designed to provide a comprehensive introduction to the discipline. Epidemiology is a scientific method of studying the causes, transmission, incidence, and prevalence of health and disease in human populations. The course consists of a series of lectures, problem sessions, homework assignments, and journal club. The lectures will review and reinforce topic areas of discussion. Epidemiology will be taught from a research and practical perspective by faculty actively involved in scientific research and public health professionals involved in public health practice.

Credits: 3

PUHE-206: Social and Behavioral Science In Public Health

This course aims to develop the capacity to understand and apply principles of health behavior theory in the context of public health social work.

Credits: 3

PUHE-300: Public Health Social Work Capstone Independent Study (Elective)

This graduate-level course is designed to provide a culminating experience or integrative learning experience for social work students engaged in projects integrating course work in public health. The course allows students to reflect upon and illustrate their competency as a public health social worker and develop their project idea. Students are required to integrate their knowledge of public health with current best practices and research in the field. They will expand upon their idea in a written final product/report. The final Capstone project should be the result of work that is independently conducted and that represents original research and critical analysis. Each project will contain an approved plan, executed project, and dissemination strategy. The material produced from this course will be presented to an audience of faculty and students two to three weeks before the end of class. This course is limited to public health social work students See note on page 577 related to courses with a range of credit hours.

Credits: 1-3

PUHE-501: Introduction to Statistical Reasoning

This course is intended to provide students with a broad overview and understanding of statistical methods used in public health and medical research. The emphasis is to afford students the understanding of fundamental theoretical concepts, interpretation, and application to public health data. The overall purpose is to introduce students to basic probability concepts and statistical techniques that are utilized in public health and biomedical research. The objective is to be able to integrate data analyses into general public health planning and support public health research and policy decision- making. Students will be able to critically appraise public health reports and current literature and analyze public health and biomedical data using descriptive statistics and inferential statistics methods. Topics will include measures of central tendency, measures of variability and exploratory data analyses techniques, and sampling methods. Inferential methods will include concepts of hypotheses, and hypothesis testing, and decision making. Approaches to be covered will include T-test, F-test, oneway ANOVA, Chi-Square tests, and linear regression analysis. Students will be introduced and use representative statistical software tools to evaluate data quality and perform data analysis with relevant public health implications. Students will also be able to communicate and interpret statistical results in a professional and consistent manner with expectations for members of the public health profession.

Credits: 3

PUHE-502: Health Disparities, Inequities & Inequalities

During the course of the semester, students will examine health inequities; how race, ethnicity and health intersect; explore the nature of racial and ethnic categories; and learn about current US demographic trends. Students will also explore approaches for addressing health inequity, including health care inequities. Students are encouraged to pay critical attention to the multiple pathways by which race and ethnicity enter the body and how they lead to negative health consequences for people of color in the United States.

Credits: 3

PUHE-503: Community Engagement (Elective)

This course aims to develop public health professionals who can competently apply principles of community engagement in public health practice and research. Mastery of the course content should result in capacity to effectively engage diverse communities in health-related endeavors and develop research practices that will readily translate to applied settings. Upon completion of the course, students should have enhanced capacity to work collaboratively with community stakeholders to implement public health interventions, conduct research, and evaluation, improve the health of communities, and promote health equity. The major questions to be considered include: What is "community" and what is the relationship between community and health? What are the processes and structures for effectively engaging communities in research? What research methods can be employed in community-engagement? What ethical issues are relevant to community partnerships? How is community-engagement evaluated?

Credits: 3

PUHE-504: Applied Biostatistics

This course is designed to strengthen learners' understanding and demonstrate knowledge of advanced statistical tools for accessing and analyzing relevant public health and biomedical data, and to support research needs. Students will be introduced to various research design methodology and applicable analytic approaches. Students will obtain practical experience in techniques and software tools for accessing, linking and integrating large public health datasets, including environmental surveillance databases and/or electronic health records for analyses and to support research needs. The course will address such topics as Advanced Linear Regression, Logistic Regression, Database development, and management; Non-Parametric tests, Factorial Analyses, two-way ANOVA, ANCOVA, Survival(Time-to-Event) Analyses including risk assessment and multivariable techniques including Hoteling's Test and MANOVA. Data analyses applications to relevant public health data and clinical outcomes will be used for practice. Students will be able to communicate and interpret statistical results in a professional and consistent manner with expectations for members of the public health professions.

Credits: 3

Prerequisites:

PUHE 501

PUHE-505: Health Policy and Management

The principles of health policy and management will be discussed as they apply to public health agencies and organizations. At the completion of this course, students will be able to: identify and describe the key components of health; understand the current context of the healthcare system with respect to patient care, provider makeup and distribution, hospital and community health centers, public health departments, pharmaceutical companies, device makers, and medical education; critically analyze drivers of costs and incentive-based behavior in the management of different health care settings; describe key aspects of health policy at the local, regional, state, and federal levels; and analyze the historical and socio-cultural aspects of health.

Credits: 3

PUHE-506: Principles of Public Health Practice (Required)

This graduate-level course designed to introduce students to a broad view of public health and the basic concepts underlying public health practiced at the local, state, national, and global level. Students learn about the integration of the core elements of public health, determinants of health, and public health services, to address these determinants. The course will take a "hands-on approach" using problem based and student-directed learning through a series of lectures, group discussions, and various writeups. This course will be offered in a hybrid format (live lectures, video lectures, and working sessions). This course is restricted to public health students.

Credits: 3

PUHE-507: Public Health Emergency Preparedness and Response (Elective)

Large-scale disasters are increasing worldwide. Disasters are nearly always a public health issue and require public health preparedness and response. This course provides an introduction to different types of public health and environmental health disasters, their consequences, and public health agencies and practitioners' role in preparedness, response, and recovery. The course will employ an all- hazards, domestic perspective and explore different types of natural, biological, chemical, radiological, nuclear, and other human-caused disasters. Through course lectures and readings, case studies, discussion, and debate, students will learn and understand the foundational concepts of the public and environmental health community's role in preparing for, responding to, and recovering from disasters. Through incourse activities and assignments, students will learn to apply these concepts to real-world disasters and identify, evaluate and synthesize information related to public health disaster response. The course is designed to develop proficiency in analyzing and evaluating the public health response to disasters and identifying solutions and methods for improvement.
Credits: 3

PUHE-508: Public Health Capstone Project I

This two-part graduate-level course is designed to provide a culminating experience or integrative learning experience for students engaged in projects integrating course work in public health. The course allows students to reflect upon and illustrate their competency as a public health practitioner and develop their project idea. Students are required to begin creating their capstone project, in which they apply the knowledge gained in the MPH Program. They must integrate their knowledge of public health with current best practices and research in the field. Students will expand upon their idea in a written final product/report in the Public Health Capstone Part II course. The final Capstone project should be the result of work that is independently conducted, and that represents original research and critical analysis. Each project will contain an approved plan, executed project, and dissemination strategy. The material produced from both Capstone I and II will be presented to an audience of faculty and students the last week of class (for Part I) and two to three weeks before the end of class for Part II. *Both courses are restricted to public health students.
Credits: 1

PUHE-509: Public Health Practicum I

This course provides an intensive, sustained exposure to public health practice. The Practicum is a required Applied Practice Experience. The experience is tailored to each learner's primary area(s) of professional interest and may occur in any setting where public health issues are addressed. This course is limited to public health students.
Credits: 3

PUHE-510: Environmental Health Science in Public Health

This course is designed to present an interdisciplinary perspective on human health risks from biological, chemical, and physical agents in their environment. The environmental settings that the course will focus on include the outdoors, the home, and the work setting. The course will cover the issues, principles, and trends in the study of the environmental impact on public health. These factors will be illustrated by a discussion of specific environmental exposures, hazards, and illnesses. In addition, the issue of environmental justice in minority communities will be presented and discusses. The course will also be utilizing the databases from the National Library of Medicine, particularly those from Environmental Health, Toxicology, & Chemical Information system. Further, the course will also utilize GIS as a component in determining environmental health risk. Finally, the impact of the rapidly evolving knowledge about genetics on public health environmental issues will be assessed.
Credits: 3

PUHE-511: Research Methods (Elective)

This graduate course aims to provide students with an understanding of advanced research designs, data collection techniques, and analyses methods commonly used in public health and social science investigations. Students will be introduced to quantitative, qualitative, and mixed methods research approaches. Topics will include ethical consideration in data collections and reporting, sampling methods, sample size consideration, secondary data analyses, and metaanalyses. Students will gain skills in the design and rigor of proposal development and manuscript preparation. Lectures will be built through a mix of texts, public health literature, and course work, and students will build skills for conducting research and evaluation.
Credits: 3

PUHE-512: Global Health

This graduate-level course is designed to develop global health practitioners/professionals who can competently apply global health principles in health practice and research. Mastery and understanding of the course content should result in the learner's capacity to better understand global health's impact both locally and globally. Additionally, the course aims to assist the learner to effectively reflect on the engagement of diverse global communities in health-related endeavors to develop research practices that will readily translate to their applied settings. Upon completion of the course, learners should have enhanced capacity of the global health arena to work collaboratively with perspective global community stakeholders, to implement global health interventions, conduct global research and evaluation, improve the global health of communities, and promote global health equity in the current reality, and those of the world.
Credits: 3

PUHE-513: Public Health Planning & Evaluation (Elective)

Health programs usually are implemented to achieve specific outcomes by performing some type of intervention or service. This graduate-level course will provide students with the basic language, knowledge, skills, and sensibilities to plan and conduct evaluations of public health programs even though the concepts and methods are equally relevant to other sectors. The evaluation cycle, including conceptualization and design, implementation, and dissemination of results/use of findings, will be discussed.
Credits: 3

PUHE-514: Public Health Capstone Project II

Continuation of PUHE-508. . This two-part graduate-level course is designed to provide a culminating experience or integrative learning experience for students engaged in projects integrating course work in public health. The course allows students to reflect upon and illustrate their competency as a public health practitioner and develop their project idea. Students are required to begin creating their capstone project, in which they apply the knowledge gained in the MPH Program. They must integrate their knowledge of public health with current best practices and research in the field. Students will expand upon their idea in a written final product/report in the Public Health Capstone Part II course. The final Capstone project should be the result of work that is independently conducted, and that represents original research and critical analysis. Each project will contain an approved plan, executed project, and dissemination strategy. The material produced from both Capstone I and II will be presented to an audience of faculty and students the last week of class (for Part I) and two to three weeks before the end of class for Part II. *Both courses are restricted to public health students.
Credits: 3

PUHE-515: Public Health Capstone Independent Study (Elective)

The independent study course requires departmental approval to enroll. Public health students can conduct individual or group projects that focus on public health research or community outreach topic. Students are required to work with a faculty preceptor or public health agency, and all work is conducted under their supervision and evaluation. After completing the course, students should be able to demonstrate a command of public health knowledge and scientific principles of the topic area of interest and demonstrate an ability to apply for graduate-level work in an area of specific professional and personal interest. See note on page 577 related to courses with a range of credit hours.
Credits: 1-3

Mathematics

MATH-5: College Algebra

College Algebra is the introductory course in algebra. The course is designed to familiarize learners with fundamental mathematical concepts such as inequalities, polynomials, linear and quadratic equations, and logarithmic and exponential functions.
Credits: 3

MATH-184: Introduction to Number Theory

This is an introductory course in Number Theory for students interested in mathematics and the teaching of mathematics. The course begins with the basic notions of integers and sequences, divisibility, and mathematical induction. It also covers standard topics such as Prime Numbers; the Fundamental Theorem of Arithmetic; Euclidean Algorithm; the Diophantine Equations; Congruence Equations and their Applications (e.g. Fermat's Little Theorem); Multiplicative Functions (e.g. Euler's Phi Function); Application to Encryption and Decryption of Text; The Law of Quadratic Reciprocity.
Credits: 3

MATH-185: Introduction to Complex Analysis

The complex number system, analytic functions, the Cauchy integral theorem, series representation, residue theory, and conformal mapping.
Credits: 3

MATH-186: Introduction to Differential Geometry

In this elementary introductory course, we develop much of the language and many of the basic concepts of differential geometry in the simpler context of curves and surfaces in ordinary 3 dimensional Euclidean space. Our aim is to build both a solid mathematical understanding of the fundamental notions of differential geometry and sufficient visual and geometric intuition of the subject.
Credits: 3

MATH-189: Probability and Statistics

Probability & Statistics introduces students to the basic concepts and logic of statistical reasoning and gives the students introductory-level practical ability to choose, generate, and properly interpret appropriate descriptive and inferential methods.
Credits: 3

MATH-195: Introduction to Analysis I (A)

Covers linear, quadratic, exponential, and logarithmic functions; systems of linear equations; elementary linear programming; matrix algebra; inverse; and mathematics of finance.
Credits: 3

MATH-196: Introduction to Analysis II (A)

Covers limits, continuity, derivatives, indefinite and definite integrals, and applications.
Credits: 3

MATH-197: Introduction to Modern Algebra I (A)

This course is an introduction to abstract algebra and will survey basic algebraic systems-groups, rings, and fields. Although these concepts will be illustrated by concrete examples, the emphasis will be on abstract theorems, proofs, and rigorous mathematical reasoning.
Credits: 3

MATH-198: Introduction to Modern Algebra II (A)

The course offers a solid introduction in modern algebra by covering basic concepts that are at the foundation of modern mathematics. It continues the first course in algebra which introduced groups. This course will emphasize the understanding of the concepts, through examples and proof writing. The course will discuss the foundations of ring and field theory: notion of ideals, fundamental theorems of isomorphism for rings, polynomial rings, divisibility in rings, field extensions, algebraic extensions, vector spaces, module theory and other topics if time permits.
Credits: 3

MATH-199: Introduction to General Topology

This course introduces topology, covering topics fundamental to modern analysis and geometry.
Credits: 3

MATH-208: Introduction to Modern Algebra I (B)

A continuation of MATH-197. This course is an introduction to abstract algebra and will survey basic algebraic systems-groups, rings, and fields. Although these concepts will be illustrated by concrete examples, the emphasis will be on abstract theorems, proofs, and rigorous mathematical reasoning.
Credits: 3

MATH-209: Introduction to Modern Algebra II (B)

A continuation of MATH-198. The course offers a solid introduction in modern algebra by covering basic concepts that are at the foundation of modern mathematics. It continues the first course in algebra which introduced groups. This course will emphasize the understanding of the concepts, through examples and proof writing. The course will discuss the foundations of ring and field theory: notion of ideals, fundamental theorems of isomorphism for rings, polynomial rings, divisibility in rings, field extensions, algebraic extensions, vector spaces, module theory and other topics if time permits.
Credits: 3

MATH-210: Algebra I

Algebra 1 introduces students to variables, algebraic expressions, equations, inequalities, functions, and all their multiple representations. In this class, students will develop the ability to explore and solve real-world application problems, demonstrate the appropriate use of graphing calculators, and communicate mathematical ideas clearly. This course lays the foundation for mathematical literacy that will help students be successful in every subsequent course in mathematics.
Credits: 3

MATH-211: Algebra II

Algebra II is a second-year algebra course with an overall theme of problem solving. The overriding themes of the course are: algebraic manipulation, equation solving, graphing, and probability. This Algebra II course is designed to prepare students for college level mathematics.
Credits: 3

MATH-214: Number Theory I

This course covers standard topics such as Prime Numbers; the Fundamental Theorem of Arithmetic; Euclidean Algorithm; the Diophantine Equations; Congruence Equations and their Applications (e.g. Fermat's Little Theorem); Multiplicative Functions (e.g. Euler's Phi Function); Application to Encryption and Decryption of Text; The Law of Quadratic Reciprocity.
Credits: 3

MATH-220: Introduction to Analysis I (B)

A continuation of MATH-195. Covers linear, quadratic, exponential, and logarithmic functions; systems of linear equations; elementary linear programming; matrix algebra; inverse; and mathematics of finance.
Credits: 3

MATH-221: Introduction to Analysis II (B)

A continuation of MATH-196. Covers limits, continuity, derivatives, indefinite and definite integrals, and applications.
Credits: 3

MATH-222: Real Analysis I

This course covers the fundamentals of mathematical analysis: convergence of sequences and series, continuity, differentiability, Riemann integral, sequences and series of functions, uniformity, and the interchange of limit operations.
Credits: 3

MATH-223: Real Analysis II

A continuation of MATH-222. This course covers the fundamentals of mathematical analysis: convergence of sequences and series, continuity, differentiability, Riemann integral, sequences and series of functions, uniformity, and the interchange of limit operations.
Credits: 3

MATH-224: Applications of Analysis

This course will cover various techniques for solving linear and nonlinear partial differential equations (PDEs) arising from physical and engineering applications; this includes both analytical and numerical methods.
Credits: 3

MATH-229: Complex Analysis I

Complex Analysis, in a nutshell, is the theory of differentiation and integration of functions with complex-valued arguments z = x +i y , where i = (-1)1/2 . While the course will try to include rigorous proofs for many - but not all - of the material covered, emphasize will be placed on applications and examples.
Credits: 3

MATH-230: Complex Analysis II

A continuation of MATH-229. Complex Analysis, in a nutshell, is the theory of differentiation and integration of functions with complex-valued arguments z = x +i y , where i = (-1)1/2 . While the course will try to include rigorous proofs for many - but not all - of the material covered, emphasize will be placed on applications and examples.
Credits: 3

MATH-231: Functional Analysis I

This will be a basic Functional Analysis course covering the three major theorems, the Hahn- Banach theorem, Uniform boundedness principle and the Open mapping-Closed Graph theorem. We shall also do Fredholm theory as it is useful to people doing PDE and also the Spectral theory of self-adjoint and bounded operators. The course will emphasize applications of Functional Analysis to PDE via illustrations in the use of Sobolev

spaces.
Credits: 3

MATH-232: Functional Analysis II

A continuation of MATH-231. This will be a basic Functional Analysis course covering the three major theorems, the Hahn-Banach theorem, Uniform boundedness principle and the Open mapping-Closed Graph theorem. We shall also do Fredholm theory as it is useful to people doing PDE and also the Spectral theory of self-adjoint and bounded operators. The course will emphasize applications of Functional Analysis to PDE via illustrations in the use of Sobolev spaces.
Credits: 3

MATH-234: Adv Ordinary Diff Equations I

First-order scalar equations: geometry of integral curves, symmetries and exactly soluble equations; existence, uniqueness and dependence on parameters with examples. Systems of first-order equations, Hamilton's equations and classical mechanics, completely integrable systems. Higher-order equations. Initial value problems for second order linear equations, series solutions and special functions. Boundary value problems with applications. Introduction to perturbation theory and stability.
Credits: 3

MATH-235: Adv Ordinary Diff Equations II

A continuation of MATH-234. First-order scalar equations: geometry of integral curves, symmetries and exactly soluble equations; existence, uniqueness and dependence on parameters with examples. Systems of first-order equations, Hamilton's equations and classical mechanics, completely integrable systems. Higher-order equations. Initial value problems for second order linear equations, series solutions and special functions. Boundary value problems with applications. Introduction to perturbation theory and stability.
Credits: 3

MATH-236: Partial Diff Equations I

Initial and boundary value problems, waves and diffusions, reflections, boundary values, Fourier series.
Credits: 3

MATH-237: Partial Differential Equations II

A continuation of MATH-236. Initial and boundary value problems, waves and diffusions, reflections, boundary values, Fourier series.
Credits: 3

MATH-239: Fourier Series & Boundary Value Problems

Fourier series and integrals. The Laplace, heat, and wave equations: Solution by separation of variables. D'Alembert's solution of the wave equation. Boundary-value problems.
Credits: 3

MATH-240: Advanced Statistical Methods

This course cover selected topics in statistical methods and research workflow related to statistical analysis. The topics covered are typically not included in statistical methods courses at the Master's Level. In academic and applied research in sociology and allied disciplines, methods knowledge is key. The same holds for individuals with sociology degrees in business and government roles for. Statistical social science is moving forward at high speed, and this course delivers practical and theoretical knowledge that allow students to do cutting-edge analyses and implement efficient workflows.
Credits: 3

MATH-243: Dynamical Systems I

Theory and applications of mathematical models of dynamical systems (discrete and continuous). Topics include linear and non-linear equations, linear and non-linear systems of equations, bifurcation, chaos and fractals.

Credits: 3

MATH-244: Dynamical Systems II

Continuation of MATH-243. Theory and applications of mathematical models of dynamical systems (discrete and continuous). Topics include linear and non-linear equations, linear and non-linear systems of equations, bifurcation, chaos and fractals
Credits: 3

MATH-245: Methods of Applied Mathematics

A survey of mathematical methods for the solution of problems in the applied sciences and engineering. Topics include: ordinary differential equations and elementary partial differential equations. Fourier series, Fourier and Laplace transforms, and eigenfunction expansions.
Credits: 3

MATH-246: Meth of Applied MAth

Possible topics include variational, integral, and partial differential equations; spectral and transform methods; nonlinear waves; Green's functions; scaling and asymptotic analysis; perturbation theory; continuum mechanics.
Credits: 3

MATH-247: Numerical Analysis I

This course is an introduction to the numerical analysis. The primary objective of the course is to develop the basic understanding of numerical algorithms and skills to implement algorithms to solve mathematical problems on the computer. a) Basic concepts: round-off errors, floating point arithmetic, Convergence.
Credits: 3

MATH-248: Numerical Analysis II

A continuation of MATH-247. This course is an introduction to the numerical analysis. The primary objective of the course is to develop the basic understanding of numerical algorithms and skills to implement algorithms to solve mathematical problems on the computer. a) Basic concepts: round-off errors, floating point arithmetic, Convergence.
Credits: 3

MATH-250: Topology I

This first course will cover the basics of point-set topology. Meeting Time The course meets on MWF at 12, in Science Center 507. Topological spaces, continuous maps, and convergence.
Credits: 3

MATH-252: Algebraic Topology I

Algebraic topology uses techniques from abstract algebra to study how (topological) spaces are connected. Most often, the algebraic structures used are groups (but more elaborate structures such as rings or modules also arise).
Credits: 3

MATH-253: Algebraic Topology II

A continuation of MATH-252. Algebraic topology uses techniques from abstract algebra to study how (topological) spaces are connected. Most often, the algebraic structures used are groups (but more elaborate structures such as rings or modules also arise).
Credits: 3

MATH-259: Differential Geometry I

This course will introduce the theory of the geometry of curves and surfaces in threedimensional space using calculus techniques, exhibiting the interplay between local and global quantities.

Credits: 3

MATH-260: Differential Geometry II

A continuation of MATH-259. This course will introduce the theory of the geometry of curves and surfaces in three-dimensional space using calculus techniques, exhibiting the interplay between local and global quantities.
Credits: 3

MATH-280: History of Mathematics

A survey of the historical development of mathematics. The emphasis will be on mathematical concepts, problem solving, and pedagogy from a historical perspective. Graduate students will be required to do some additional work beyond what is expected of the undergraduate members of the class.
Credits: 3

MATH-350: Thesis I

Thesis guidance for M.A. students. See note on page 577 related to thesis hours.
Credits: 6

MATH-550: PhD Dissertation

Dissertation guidance for doctoral students. See note on page 577 related to research and dissertation hours.
Credits: 1-6

MATH-551: PhD Dissertation

Dissertation guidance for doctoral students. See note on page 577 related to research and dissertation hours.
Credits: 1-6

Mechanical Engineering

MEEG-500: MS Directed Research

This course can be used by master's students to meet their course registration requirements and also conduct some preliminary work on their master's research projects. See page 577 for additional information related to courses with a range of hours.
Credits: 6

MEEG-501: Aerodynamics Theory

Covers the foundations of incompressible, compressible, and ideal and viscous aerodynamics theory.
Credits: 3

MEEG-503: Advanced Thermodynamics I

Reviews of the basic laws of classical thermodynamics, cycles, and reactive systems.
Credits: 3

MEEG-504: Advanced Thermodynamics II

Examines the statistical basis of thermodynamics and irreversible thermodynamics.
Credits: 3

MEEG-505: Advanced Dynamics I

Analyzes particle dynamics, systems of particles, Hamilton's principle, Lagrange's equations, central force motion, rigid body dynamics, and Euler's equations.
Credits: 3

MEEG-506: Astronautics

Studies the satellite position relative to rotating earth, perturbation theory, restricted three-body problem, ascent trajectories, staging, mass ratio, and near - earth atmosphere.
Credits: 3

Prerequisites:

MEEG 505.

MEEG-507: Advanced Fluid Mechanics

Studies the physical properties of fluids, kinematics and conservation equations of fluid motion in rigid coordinate systems, tensor analysis, boundary conditions, vorticity, Navier - Stokes equations, some of their analytic solutions and selected topics on creeping flows, laminar boundary layers, instability of viscous flows and turbulence.
Credits: 3

MEEG-508: Advanced Heat Transfer I

Presents analytical and numerical techniques for the analysis of convective heat-transfer problems.
Credits: 3

MEEG-509: Advanced Gas Dynamics

Examines sound waves, waves of finite amplitudes in gases, shock and expansion waves, onedimensional gas-dynamic flows, linearized steady subsonic and supersonic flows and the theory of characteristics.
Credits: 3

MEEG-510: Advanced Fluid Mechanics II

Deals with the mathematical formulation of basic equations of fluid dynamics and potential flow theory.
Credits: 3

MEEG-511: Advanced Heat Transfer II

Presents analytical and numerical techniques for the solution of heat conduction problems.
Credits: 3

MEEG-512: Applications of Continuum Mechanics

Presents the kinematics of a general continuum and fundamental laws of continua.
Credits: 3

MEEG-514: Acoustics and Noise

Covers fundamentals as well as contemporary topics in acoustics.
Credits: 3

MEEG-515: Experimental Stress Analysis

Specialized experimental stress analysis course, with emphasis on design, construction, and use of complex models.
Credits: 3

MEEG-518: Master's Thesis

Intensive investigation carried out by students involving analysis, design, and/or experimentation in the student's area of interest. See note on page 577 related to thesis hours.
Credits: 1-6

MEEG-519: Graduate Seminar

Forum for the presentation of current research activities of graduate students, faculty, and guest speakers. **Credits:** 1

MEEG-521: Variational Methods in Applied Mechanics

Emphasizes formulation and application of variational principles for static, steady state and transient problems in solid and fluid mechanics.
Credits: 3

MEEG-523: Radiation Heat Transfer

Analyzes radiation heat transfer, including radiation exchange between surfaces and radiative transfer in participating and nonparticipating media.
Credits: 3

MEEG-524: Special Topics in Solid Mechanics

Varies on demand; topics offered include finite element methods, fracture mechanics and fatigue. See page 577 for additional information related to Special Topics courses.
Credits: 3

MEEG-532: Advanced Robotics

Advanced treatment for several complex topics for robotic manipulator analysis, design and control. Robot kinematics, dynamics based on Newton, Euler-Lagrange and Kane's method of formulations, linearization and control techniques, determination of positioning errors and modeling, and computer simulation.
Credits: 3

MEEG-533: CAD in Manufacturing

Advanced work in computer-aided analysis and 3D geometric modeling with integration of manufacturing automation system, application of CAD techniques such as expert system and other advance developments to the concept of computer integrated manufacturing and flexible manufacturing system.
Credits: 3

MEEG-534: Finite Element Analysis

Basic concepts, formulation, and application of finite element techniques for numerical solution of problem in structural mechanics, heat transfer, dynamic response and fluid mechanics. Applications using general purpose FEM software such as ANSYS.
Credits: 3

MEEG-535: Projects in Manufacturing

Advanced treatment of several topics of an interdisciplinary manufacturing environment and the critical examination of recent literature describing application of these topics to new technology areas.
Credits: 3

MEEG-600: Ph.D. Directed Research

This course can be used by doctoral students to meet their course registration requirements and also conduct some preliminary work on their master's research projects. See page 577 for additional information related to courses with a range of hours.
Credits: 1-9

MEEG-606: Computer Applications in Mechanical Engineering

Theory and practice of the application of digital computers to mechanical engineering problems.
Credits: 3

MEEG-609: Computational Fluid Dynamics

Includes numerical analysis fundamentals and difference methods for partial differential equations of fluid dynamics.

Credits: 3

MEEG-610: Space Flight Dynamics and Attitude Control

Examines rigid body dynamics, forces and torques that act on a spacecraft, passive and active stabilization of spacecraft, stability theory-Lyapunov's direct method, and Floquet theory.
Credits: 3

Prerequisites:

MEEG 505 and MEEG 506.

MEEG-611: Turbulence

Presents theories of turbulence, dynamics of turbulence and closure schemes, turbulent shear flows, and turbulent transport of momentum and heat.
Credits: 3

MEEG-612: Advanced Dynamics II

Treats stability of linear systems - small oscillations; Hamilton's equations - phase space; canonical transformations; and the Hamilton- Jacobi equation.
Credits: 3

MEEG-613: Special Topics in Aerospace Mechanics

Presentation of selected topics in contemporary aerospace mechanics that are of current interest to student and faculty researchers. See page 577 for additional information related to Special Topics courses.
Credits: 3

MEEG-614: Special Topics in Fluid Mechanics

Presentation of selected topics in contemporary fluid mechanics that are of interest to researchers. See page 577 for additional information related to Special Topics courses.
Credits: 3

MEEG-615: Special Project (Non-Thesis Option)

Project course taken by master's program students enrolled in the non-thesis option with specialization in various areas of interest.
Credits: 3

MEEG-616: Special Topics in CAD/CAM

Presentation of specialized topics in contemporary CAD/CAM discipline that are of interest to researchers. See page 577 for additional information related to Special Topics courses.
Credits: 3

MEEG-617: Spacecraft Attitude Estimation

The attitude representations, attitude kinematics, attitude measuring devices, elementary estimation theory, three-axis and spinaxis attitude estimation, deterministic and optimal attitude estimation, the Kalman filter, attitude error analysis and accuracy prediction, spacecraft system identification.
Credits: 3

Prerequisites:

MEEG 505

MEEG-618: Dissertation I

Intensive investigation carried out by Ph. D. candidates involving analysis, design, and/or experimentation in the student's area of interest that will culminate in an original contribution to the field. See note on page 577 related to thesis hours. *Note: A maximum of 12 dissertation credits may be taken per semester. In addition, a

maximum of 12 dissertation credits may be counted toward the 72 required for program completion.
Credits: 12

MEEG 615: Special Projects

Project course taken by master's program students enrolled in the non-thesis option with specialization in various areas of interest. See page 577 for additional information related to Special Topics courses.
Credits: 3

Medicine

DERM-202: Dermatology

The purpose of the dermatology elective is to provide a learning environment for the student to develop basic outpatient and inpatient dermatology skills.
Credits: 4

INDI-326: Neurology

The student will be exposed to clinical pulmonary medicine including consultations, conferences, ambulatory service clinics, diagnostic procedures, pulmonary function testing and interpretation.
Credits: 4

INDI-342: Population Health I

After the completion of the unit, students should be able to describe and discuss the topics in Public Health.
Credits: 4

INDI-404: Population Health II

This unit focuses on professionalism as it relates to becoming a physician and issues of health care policy
Credits: 3

INDI-405: Population Health III

This unit focuses on professionalism as it relates to becoming a physician and issues of health care policy
Credits: 4

MASX-300: Anesthesiology

The student will be assigned to daily care (pre-op/peri-op/post-op) of patients who require care by anesthesiologists. The students will work under the supervision of an anesthesiologist in the main operating room, labor & delivery suite, pain clinic, endoscopy suites, cystoscopy, and other laboratories. Students will also actively participate in lectures and other teaching/learning sessions. Attendance and punctuality at these sessions are mandatory. Students will be assigned topics for presentation and discussion in teaching sessions. Training in managing airways will be accomplished by use of mannequins. Each student is required to write up a case report of a patient they encountered during the rotation or conduct a literature review of an assigned topic that will be written in the form of a paper suitable for publication. All students are required to maintain a log of all patients whose care they were involved.
Credits: 4

MDEX-407: Research in Dermatology

A four-week elective offered by the department of dermatology, designed to provide experience in research in dermatology either clinical or laboratory. Research design methods will be analyzed. Statistical analysis methods will be assessed. The student will formulate and undertake a short research project and will prepare a written report describing findings of the research project.
Credits: 4

MEDI-169: Gastroenterology (Research)

This is a four-week elective offered by the Division of Gastroenterology in the Department of Medicine. It is

designed to provide some experience in clinical gastroenterology research.
Credits: 4

MEDI-170: Cultural Competence in HIV

This four-week elective offered by the department of Infectious Diseases will expose students to broad concepts of cultural competency in the delivery of health care. Lectures and workshops on topics addressing the role of cultural competency in reducing health disparities and ensuring quality care for diverse populations will be presented. Specifically, students will be instructed in the BESAFE Model of Cultural Competency for clinicians. BESAFE addresses six core components: Barriers to Care, Ethics, Sensitivity, Assessment, Facts, and Encounters. Case studies will be used as a potent tool to illustrate and demonstrate the six components of BESAFE as they relate to real life clinical situations. Students will also be introduced to the National HIV Curriculum (NHC) and are required to complete the six (6) module accessible via this link https://www.hiv.uw.edu/. The NHC provides ongoing, up-to-date information needed to meet the core competency knowledge for HIV prevention, screening, diagnosis, and ongoing treatment and care to U.S. healthcare providers.

Credits: 4

MEDI-402: Senior Medicine

The objective of this rotation is to provide students with hands on clinical experiences that are specifically designed to mirror their upcoming roles as interns in postgraduate training. The medical Sub-intern will master specific core competencies and basic principles of inpatient medical care.

Credits: 4

MEDI-405: Endocrinology

The elective in endocrinology is designed to acquaint the student with the presentation, evaluation, and management of patients with a spectrum of endocrine and metabolic disorders both on an inpatient as well as an outpatient basis. To this end, experience with adult medical, pediatric, and gynecologic endocrinopathies as well as some exposure to the basic science aspects of endocrinology is planned.

Credits: 4

MEDI-406: Gastroenterology

Senior medical students who choose an elective in gastroenterology are assigned to the G.I. Service at Howard University Hospital. Each student answers consultations along with the fellow, seeing and working up in-patients referred for gastrointestinal problems. The student will be expected to write the formal consultation after presentation of the case to an attending physician. In addition, the student will assist in (or perform under direct supervision) diagnostic maneuvers for assessing gastrointestinal disorders.

Credits: 4

MEDI-409: Medical Oncology

Emphasis is placed on clinical oncology and the clinical pharmacology of the antineoplastic agents. Students are expected to develop a diagnostic and therapeutic plan for each patient seen. Pathology, pathophysiology, staging and the selection of treatment modalities will be taught as well as the recognition and management of the complications of cancer and toxicity of its treatment. The student will participate in the section's seminars, journal clubs and conferences. A pretest and post-test will be given. The preparation and presentation of a short paper will be required.

Credits: 4

MEDI-420: Clinical Pulmonary Medicine

The student will be exposed to clinical pulmonary medicine including consultations, conferences, ambulatory service clinics, diagnostic procedures, pulmonary function testing and interpretation.

Credits: 4

MEDI-427: Geriatrics

This elective is an introduction to clinical geriatrics. The students will evaluate elderly patients at the Washington Center for the Aging Services (WCAS) and at Howard University Hospital. He/she will learn to appreciate the common and/or unique illnesses and disorders in the elderly.
Credits: 4

MEDI-428: General Internal Medicine

During this four-week elective, students are exposed to broad concepts of internal medicine and their application in the delivery of comprehensive health care.
Credits: 4

MEDI-520: Cardio Vasc Med-Consult SRC

This elective is designed to acquaint the student with the recognition and management of various cardiovascular disorders as they present in various settings, as well as monitoring by telemetry. Daily teaching rounds by faculty emphasize the pathophysiology of cardiac illness, physical diagnosis, electrocardiography, hemodynamic monitoring, and patient management. The student's educational experience is enhanced through interaction with cardiovascular medicine faculty and fellows, as well as through weekly imaging, electrocardiography, catheterization/electrophysiology, and clinical cardiovascular conferences. Students will have the opportunity to gain exposure to invasive procedures in the catheterization laboratory, the electrophysiology laboratory, noninvasive procedures including stress testing and echocardiography, and transesophageal echocardiography. Each rotation block will include a lecture about academic career development in cardiovascular medicine for interested students.
Credits: 4

MEDI-523: Cardiovasc Med-Consult Serv

This exciting elective is designed to acquaint the student with the recognition, diagnosis and management of various acute cardiovascular disorders, which require advanced cardiovascular treatment (e.g. acute myocardial infarction, complex arrhythmias, advanced heart failure) as well as monitoring by telemetry such as angina, atrial fibrillation, and heart failure. Daily teaching rounds by faculty will emphasize the pathophysiology of cardiac diseases, physical examination, electrocardiography interpretation, hemodynamic monitoring, preventive cardiology, innovations in cardiovascular medicine, and patient management. The student's educational experience is enhanced through interaction with cardiovascular medicine faculty and fellows, as well as through weekly imaging, electrocardiography, catheterization/electrophysiology, and clinical cardiovascular conferences. Students will have the opportunity to gain exposure to invasive procedures in the catheterization laboratory, the electrophysiology laboratory, noninvasive procedures including stress testing and echocardiography, and transesophageal echocardiography. Each rotation block will include a lecture about academic career development in cardiovascular medicine for interested students.
Credits: 4

MEDI-551: Critical Care Medicine (MICU)

The elective is designed to provide the student with supervised first-hand experience in the care and management of critically ill patients. Physical diagnosis, hemodynamic monitoring/support and respiratory monitoring/support are stressed. Students may be taught routine ICU procedures which include Swan-Ganz catheterization, arterial catheterization, etc. and will be introduced to computer applications to patient care.
Credits: 4

MEDI-552: Nephrology

The student is given broad exposure to the clinical practice of nephrology. He/she works as part of the ward team, doing patient workups, participating in daily attending rounds, and attending scheduled renal conferences. He/She becomes proficient in interpretation of blood chemistry and urine test results and observes first-hand the management of renal patients with acute kidney injury and chronic kidney disease including those on hemodialysis, peritoneal dialysis and those with renal transplant and fluid and electrolyte problems.

Credits: 4

MEDX-406: Infectious Diseases

A four-week elective offered by the department of Internal Medicine; Division of Infectious Disease designed to: • Learn basic and advanced principles of the pathogenesis of infectious diseases and host-pathogen interactions which provide the basis for understanding infectious diseases; • Accumulate knowledge about practical approaches for the diagnosis, management and prevention of infectious diseases; • Learn the optimal use of antimicrobial agents, including their appropriate use, toxicities, cost-effectiveness as well as their mechanisms of action.; and • Be able to present a clear, cohesive, and in-depth presentation of an infectious disease topic to the infectious diseases team.

Credits: 4

MEDX-411: Emergency Medicine

The student will be involved in the management of a variety of medical/surgical emergencies. During the four-week elective the student will attend four (4) laboratory sessions (splint suture, slit lamp and arrhythmia recognition) and the emergency medicine departmental conferences which are offered for a total of six hours each week, as well as emergency medicine conferences designed for medical students only. An emergency medicine workbook will be distributed for each student.

Credits: 4

MEDX-449: Endocrinology (Research)

Safe use of laboratory practices quality control assessment, and statistical methods Development of protocols with familiarization of Institutional Review Board process. Structure and function assessment of protein hormones and their receptors; Clinical applications of the research presentation of research results in the form of manuscript.

Credits: 4

MFDX-403: Community Health Family Practice (Fam Med) Clerkship

Focuses on the role of the family physician in the therapeutic relationship in terms of the entire patient, family and community.

Credits: 4

MFPX-415: Family Medicine

The preceptorship elective exposes students to primary care medical setting during their basic professional training years. Students work on a one-to-one basis with a primary care physician in a private office setting, or community health clinic. Each student is assigned to a preceptor, who shall orient the student to office procedures and management. The student may be involved in nursing home visits, hospital rounds, medical meetings, and other practice-related activities. The preceptor shall emphasize the family physician’s role as a member of the health care team providing longitudinal and comprehensive care. Primary Care is defined as care for patients in the ambulatory settings in the following areas: general internal medicine, family medicine, gynecology, pediatrics, and adolescent medicine.

Credits: 4

MNUE-405: Aging Brain

The student will be exposed to clinical pulmonary medicine including consultations, conferences, ambulatory service clinics, diagnostic procedures, pulmonary function testing and interpretation.
Credits: 4

MPED-211: Neonatology

Neonatology is the study of the neonate. Pathophysiology of the neonate and disease states of the fetus and the newborn, both term and preterm are discussed. Basic principles of newborn resuscitation are reviewed, and skills assessed.
Credits: 4

MPED-215: Pediatric Endocrinology

Endocrine and metabolic influences in health and disease are studied. Both outpatients and inpatients are managed. Some clinical genetics are included.
Credits: 4

MPED-235: Adolescent Medicine

This elective is designed to introduce students to common medical presentations of Problems. The assessment of the adolescent in terms of developmental, psychological and environmental influences will be reviewed. Students will be exposed to different clinical settings that provide adolescent health care. Students are also expected to spend time on an individual research project and attend any scheduled didactic lectures.
Credits: 4

MPEX-406: Pediatric Hematology

Emphasis is placed on management of children and adolescents with hematological disorders especially sickle cell disease and children and adolescents with HIV infection. Basic laboratory studies such as interpretation of peripheral blood and bone marrow smears are taught. Opportunities are available for clinical and biochemical research for students who are interested.
Credits: 4

MPEX-429: Ped Allergy & Immunology

The student will be taught the evaluation and care of children with allergies such as asthma, eczema, and allergic rhinitis. Evaluation and care of children with suspected immuno-deficiencies will also be taught. Activities include attendance at three clinics per week, consultation, lectures, presentations, and discussions.
Credits: 4

MPMX-420: Physical Med and Rehabilitation

This is an elective clerkship in the evaluation and physiatric management of patients with disabilities. Emphasis will be given during the first four (4) weeks to functional evaluation and disability assessment. The student will receive experience in the prescription of common physical modalities (heat, light, sound, electricity, water, and therapeutic mechanical energy) and in the coordination of rehabilitation team efforts to deliver comprehensive care.
Credits: 4

MPSX-401: Clin Psychiatry

The purpose of the elective is to give the student a more detailed theoretical and practical experience in general Psychiatry. The student will be expected to: Develop thorough knowledge and experience in the conduct of an initial interview including the mental status evaluation; Acquire keener recognition of symptoms and greater familiarity with psychiatric terminology; Develop knowledge and skill in consultation and liaison psychiatry; Develop knowledge and skill in addiction psychiatry; Develop skills in working with children and adolescents as well as adults; Develop skills and knowledge in working with the severely mentally ill and their rehabilitation; Develop an increased awareness of terminology in accordance with DSM V; Develop an increased awareness of the psychiatric therapies including insight oriented therapy, cognitive behavioral therapy, interpersonal therapy hypnotherapy, in individual and group settings. • Develop an increased awareness of pharmacotherapy, contraindications, mechanisms of action, actions, interactions and side effects of drugs commonly used and experience in novel agents in late stage clinical drug trials.; Develop knowledge and skill in formulating a treatment plan, to monitor such plan and make necessary changes based on the patient's response.

Credits: 4

MPSX-414: Psychiatry Acting Internship

This is a four-week elective that can be extended to a year. As part of the overall goal of helping the medical student to develop the skills to become an independent practitioner the objectives are to: Further develop diagnostic skills for psychiatric disorders and related disorder; Further develop treatment management skills for psychiatric disorders and related disorder; To further expand the knowledge base for psychiatric and related disorders.

Credits: 4

MPSX-416: Psychiatry Research

The student will develop skills in diagnosing mental and substance abuse disorders and in the use of psychiatric research assessment instruments and clinical protocols. The student will also gain knowledge about new treatment interventions in psychiatry. The elective also offers opportunities to conduct an in-depth literature review and secondary data from local and national databases. Research opportunities are available to medical students through multiple research grants. Projects explore understanding of the psychology, culture and biology of post-traumatic stress disorder, related sleep disturbances, the genetics and treatment of bipolar disorder and novel treatments for depression, schizophrenia, opiate addiction. Opportunities will be provided for community outreach, interventions involving the faith community, homeless shelters, and public schools. Integrated care research projects are being done involving HIV or hepatitis C. Students will be expected to develop publishable research papers, and or to present poster or paper presentations at local or national meetings.

Credits: 4

MRAX-402: Diagnostic Radiology

To provide a broader understanding of the principles of radiology and a familiarity with the many diagnostic techniques available, their values and limitations, and how they may best be used in the management of the patient. To train the student in the basic skills of image interpretation with emphasis on, but not limited to, the brain, neck, chest, abdomen, pelvis and extremities.

Credits: 4

MRTX-404: Radiation Oncology

Introduction to basics of radiation physics, radiation biology and clinical radiation oncology.

Credits: 4

MSUX-401: General Surgery

Daily rounds with surgical teams and attending physicians; participation in conferences and clinics; involvement in the care of severely ill surgical patients in intensive care and recovery room areas; assistance in patient work-up, preoperative, operative and postoperative care; also personal discussion with residents and attending physicians on a variety of surgical topics. On occasion, assistance with and participation in research projects will be required.
Credits: 4

MSUX-403: Neurosurgery

This is a four-week elective offered by the Division of Neurosurgery in the Department of Surgery. Daily rounds with the attending, outpatient clinics, in-patient pre- and postop management, and the consultation service will provide the educational experiences that will allow students to meet the educational objectives of this rotation.
Credits: 4

MSUX-404: Ophthalmology

A four-week elective offered by the department of Ophthalmology designed to: Obtain skills in ophthalmic history and examination; Gain knowledge of ophthalmic disease; Observation of surgical procedures; Participate in teaching conference and rounds; Participate in patient consultation; Learn the proper use of the slit lamp biomicroscopy, indirect and direct ophthalmoscope.
Credits: 4

MSUX-405: Orthopedic Surgery

Students will: Participate in the pre-operative, operative and postoperative care of orthopaedic patients; Make daily rounds with orthopaedic team that includes residents and attending physicians; Participate in orthopaedic clinics; Actively participate in conferences, including preparation of brief presentations on a variety of orthopaedic topics.
Credits: 4

MSUX-415: Surgical IC Unit

Students are required to attend daily rounds with Hyperalimentation and the Intensive Care Unit teams, assist in patient management activities and participate actively in central venous pressure measurements, and in monitoring of patients with arterial and Swan-Ganz catheters. Students will also assist in critical postoperative patient care.
Credits: 4

MSUX-416: Senior Surgery

Provide senior medical students an in-depth experience in general surgery and a surgical specialty
Credits: 4

MSUX-429: Urology

The student will participate fully in the primary care of urologic inpatients and outpatients under the direct supervision of attending and resident personnel. He/she is expected to participate in daily rounds, surgery, clinic and conference. If interested, he/she can be assigned to a clinical research problem.
Credits: 4

OBGY-410: Gynecology

The student will be exposed to and interact with patients who present with common gynecological diseases in the hospital and the clinic with emphasis on diagnostic procedures and therapy.
Credits: 4

OBGY-411: Maternal Fetal Medicine

Clinical experience in dealing with high-risk obstetrics and basic ultrasound training.

Credits: 4

OBGY-416: Obstetrics

The student will have clinical experience in obstetrics dealing with basic physiology and anatomy of mother and fetus. Some high-risk obstetrical cases will be included.
Credits: 4

PSYH-400: Emergency Psychiatry (CPEP) El

This is a four-week elective. The goal of this elective is to further develop knowledge and skills in problem-focused emergency evaluation of individuals with mental illness, crisis management and planning of appropriate disposition. Students will further advance their theoretical psychopharmacologic therapy knowledge to manage a variety of psychiatric symptoms. Students will further their skills in collecting data evaluating and making diagnoses in emergency psychiatry. Note: Students will not be working with international medical students.
Credits: 4

RADI-250: Research in Radiology

This course is ONLY accessible to students who during their first three years of medical school have spent a long summer rotation in Dr Wang's laboratory and wish to complete the write up on a project that is almost completed. This is a four-week elective offered by the Department of Radiology in the Molecular Imaging Laboratory. It is designed to provide added time to complete a previous experience in clinical radiology research.
Credits: 4

SURG-408: Surgical Oncology

This four-week elective offered by the Department of Surgery is designed to provide senior medical students with exposure to aspects of surgical oncology.
Credits: 4

SURG-419: Otolaryngology

Upon completion of this unit, students should be able to: Label diagrams of external and internal structures of the ear, nose, and throat; Describe and discuss the physiological functions of the anatomical structures of the ear, nose, and throat; Describe and discuss logical growth patterns pertinent to ENT development; Complete a patient's history and physical examination; Identify and complete necessary tests for diagnosing ENT problems; Identify, recognize and explain signs and symptoms of ENT abnormalities and diseases presented by patients; Identify and recommend treatment for common conditions, abnormalities and diseases associated with ENT.
Credits: 4

SURG-431: Ophthalmology (Advanced)

Students will become skillful at history taking, ophthalmologic examination, diagnosis and management of common disease: dry eye; red eye; glaucoma; cataracts; retina; strabismus; trauma. Students will be involved in weekly lecture series, grand rounds and combined retina lectures. Students will observe surgery and become a part of the resident team.
Credits: 4

Microbiology

MICR-228: Research in Microbiology

The course in two sequential semesters of 9 credits each engages advanced graduate students to undertake experimental research of interest under the guidance and supervision and in the laboratory of a faculty member. *Note: A maximum of 9 research credits may be taken per semester. In addition, a maximum of 18 research credits may be counted toward the 79 required for program completion.

Credits: 1-9

MICR-300: Biology of Pathogens I

Review of factors and mechanisms utilized by pathogenic bacteria, fungi and protozoan parasites as determinants of their pathogenicity. Roles of plasmids, exotoxins, extracellular enzymes and outer wall components that mediate virulence and microbial adherence.
Credits: 5

MICR-303: Biology of Pathogens II

A continuation of MICR-300. Review of factors and mechanisms utilized by pathogenic bacteria, fungi and protozoan parasites as determinants of their pathogenicity. Roles of plasmids, exotoxins, extracellular enzymes and outer wall components that mediate virulence and microbial adherence.
Credits: 4

MICR-304: Cellular and Molecular Immunology

This course focuses on mechanisms of immunological processes and emphasizes skills in problem-solving and experimental design.
Credits: 4

Prerequisites:

immunology, cell biology, biochemistry or equivalent.

MICR-305: Cell/Molecular Biology

Review of the molecular and biochemical structure and function of eukaryotic cells.
Credits: 3

Prerequisites:

biochemistry and general biology.

MICR-307: Virology

Review the basic principles of virology, including assays of viral infectivity and analysis of biosynthesis of viral gene products.
Credits: 4

MICR-413: Molecular Biology

This course focuses on recombinant DNA technology and instrumentation, utilizing current molecular techniques to study selected recombinant molecules.
Credits: 4

MICR-417: Seminar

A facilitation course imparting skill of communication of scientific information to a body of peers.
Credits: 3

MICR-418: Special Topics in Microbiology

Discusses laboratory experiences for students on various methodologies and techniques employed in research laboratories. See page 577 for additional information related to Special Topics courses.
Credits: 3

MICR-600: Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D. See note on page 577 related to dissertation hours.
Credits: 1-12

Music Education

MUSD-051: Elementary Choral Conducting

Primary emphasis is placed on growth in four key areas: score study, musicianship, manual gesture, and rehearsal preparation and pedagogy.
Credits: 3

MUSD-052: Advanced Choral Conducting

A continuation of MUSD-52. Primary emphasis is placed on growth in four key areas: score study, musicianship, manual gesture, and rehearsal preparation and pedagogy.
Credits: 3

MUSD-058: Instrumental Conducting

The primary objectives of this course are to enable students: (1) to develop gestures which effectively convey a sense of musical meaning; (2) to develop skills to interpret musical scores; (3) to develop the ability to self-critique one's own conducting; (4) to demonstrate competence using standard musical notation.
Credits: 3

MUSD-250: Graduate Research in Music Education

This course provides graduate students interested in music education research with an introduction to techniques of educational research, with an emphasis on design and analysis, and with a critical review of selected current research studies in music education procedures for reviewing research literature.
Credits: 3

MUSD-256: Administration & Supervision of Music Education

The clinical supervision process is explored in the first half of the course, which is most helpful for working with student teachers. Administrative techniques such as budgeting, grant writing, personnel management, etc., studied in second part of course.
Credits: 3

MUSD-258: Foundations of Music Education

An investigation of historical, philosophical, aesthetic, and pedagogical principles that provide the background and context for contemporary music education. The course focuses on developing a vision of music education for the future.
Credits: 3

MUSD-260: Psychology of Music

This course considers human behavior from both the psychological and musical perspectives.....The course explores why music exists, why people listen to music, how people understand music, and how social relationships influence musical tastes.
Credits: 3

MUSD-280: Instrumental Conducting

The primary objectives of this course are to enable students: (1) to develop gestures which effectively convey a sense of musical meaning; (2) to develop skills to interpret musical scores; (3) to develop the ability to self-critique one's own conducting; (4) to demonstrate competence using standard musical notation.
Credits: 3

MUSD-303: Thesis

Thesis guidance for M.A. students.
Credits: 3

MUSD-304: Recital

A solo recital, of at least one hour in length, required of all graduating seniors in applied music.
Credits: 3

Music Instrument

MUSK-011: Instrument Repair

Teaches basic skills of instrument repair.
Credits: 1

MUSK-012: Instrument Repair

Teaches basic skills of instrument repair.
Credits: 1

MUSK-021: Instrument Repair
Continuation of MUSK-011, 012.
Credits: 1

Prerequisites:

MUSK-011, 012, or consent of instructor.

MUSK-022: Instrument Repair

Continuation of MUSK-011, 012.
Credits: 1

Prerequisites:

MUSK-011, 012, or consent of instructor.

MUSK-031: Instrument Repair

Continuation of MUSK-021, 022.
Credits: 1

Prerequisites:

MUSK-021, 022, or consent of instructor.

MUSK-032: Instrument Repair

Continuation of MUSK-021, 022.
Credits: 1

Prerequisites:

MUSK-021, 022, or consent of instructor.

MUSK-041: Instrument Repair

Continuation of MUSK-031, 032.
Credits: 1

Prerequisites:

MUSK-031, 032, or consent of instructor.

MUSK-042: Instrument Repair

Continuation of MUSK-031, 032.
Credits: 1

Prerequisites:

MUSK-031, 032, or consent of instructor.

MUSK-111: Piano Technology: Lecture and Practicum

Analysis of the acoustical construction of the piano and mechanical functions, with concentration on maintenance and repair.
Credits: 1

Prerequisites:

Junior classification.

MUSK-112: Piano Technology: Lecture and Practicum

Analysis of the acoustical construction of the piano and mechanical functions, with concentration on maintenance and repair.
Credits: 1

Prerequisites:

Junior classification.

MUSK-121: Piano Technology: Lecture and Practicum

Continuation of MUSK-111, 112.
Credits: 1

Prerequisites:

MUSK-112.

MUSK-122: Piano Technology: Lecture and Practicum

Continuation of MUSK-111, 112.
Credits: 1

Prerequisites:

MUSK-112.

Music Theory

MUSB-351: Graduate Analysis

The course focuses on the interaction of harmony and counterpoint as the underlying basis of common practice tonal music. Emphasis on analysis at surface and reductive levels. Methods of instruction are lecture and discussion.
Credits: 3

MUSG-312: Graduate Voice Major II

A continuation of MUSG-311. This course investigates the vocal physiology and various teaching methods and tools necessary to the successful singer and pedagogue. Required study for all voice majors, undergraduate and graduate.
Credits: 5

Non-Tradi Doctor of Pharmacy

NTDP-606: Integrated Pharmaceutical Care and Science Laboratory: I-Care Lab-1

I-Care lab involves case study discussion for application of therapeutic decision-making high impact problems

in pharmacy. The course is correlated with Integrated Pharmaceutical Care and Science. During the topic discussions addressed within the sequenced courses, students will participate in the applications laboratory in order to develop skills for applying information in a practice context.

Credits: 2

NTDP-607: Cardiovascular

The course is structured in a modular format and complemented with Integrative Therapeutics Laboratory I with lectures, labs and learning activities led by clinical faculty. In order for students to achieve the course goals and objectives, a variety of teaching methods will be applied. In conjunction with Integrative Therapeutics laboratory I, students participate in traditional lectures, small group discussions, practical laboratory exercises, SOAP case write-ups, case simulation, and oral exam to reinforce didactic teachings and overall student learning; however, the primary focus of the module is provided by traditional lectures.
Credits: 3

NTDP-610: Infectious Diseases

This course will be taught by the clinical and basic science faculty together to provide instruction utilizing both didactic and practical experience sessions. The course is organized by organ systems of the human body and various diseases associated with them. Students will learn about the pathophysiology and pharmacotherapy of various disease states that health care practitioners (pharmacists) may encounter in their practice settings. Students will also learn to make appropriate therapy choices, define goals of therapy, and learn to assess whether these goals are being achieved. Students will learn to create, implement, and monitor pharmaceutical care plans. A goal of this course is to prepare students with the ability to render pharmaceutical care and participate successfully for the experiential program.
Credits: 4

NTDP-615: Pharmacoepidemiology

The Pharmacoepidemiology and Outcomes Research section is an introduction to the evaluation of the scientific studies that supports the rational use of medication use in humans. The goal of this block is to provide opportunities for students to understand the concepts, methods, and applications of pharmacoepidemiology, pharmacoeconomics, and outcomes studies utilized in clinical settings as well as with to provide tools to critically assess the clinical literature. In addition, the methods for the interpretational and generalization of findings from these studies relevant to medical and pharmaceutical care practice will be introduced by utilizing knowledge developed from the Research Methods/Biostatistics block. Students will be also prepared for problem-based critique sessions in the Integrative Therapeutics blocks.
Credits: 4

NTDP-617: Hematology/Oncology

This course module follows Integrated Therapeutics I, II, III and IV and is taught by clinical faculty using both didactic and simulated practice-oriented learning experiences. Specifically, IT-V focuses on hematology and oncology related diseases and conditions. Students learn and apply appropriate pathophysiologic and pharmacotherapeutic concepts and principles in an INTEGRATED fashion to establish competent methodology toward achieving optimal patient outcomes. This includes defining goals of therapy and selecting appropriate therapy from among available choices. Students will gain experience with various medication therapy management processes through lecture, discussion, and simulation. Upon completion of this course, students should be prepared to participate in offering medication therapy management services for the covered diseases and conditions.
Credits: 3

NTDP-620: Neurology and Psychiatry

Integrated Therapeutics (IT) III lecture is the third component in the integrated therapeutics series designed to combine the pathophysiologic and pharmacotherapeutic management of various disease states encountered routinely by pharmacist practitioners. Where appropriate, cultural competency principles will be integrated with lecture topics. Student knowledge of basic pharmaceutical principles, acquired in IT-I&II, will be applied to clinical principles of additional organ systems presented in IT-III. This is a team-taught course.
Credits: 3

NTDP-623: Patient Assessment Skills

Overview of Cardiopulmonary assessment, discussion of the "when," "why," and "what" of physical assessment of the cardiac and pulmonary. Patient cardiovascular physical assessment instruction: peripheral edema, vital signs. Enrollment is limited to students enrolled in the Non-Traditional Doctor of Pharmacy program only.
Credits: 1

NTDP-624: Drug Information Resources

This course refers to the application of technology in the delivery of drug information services. Drug information services, in turn, include responding to drug information inquiries, conducting medication use evaluations and participating in medication quality assurance programs, such as; monitoring adverse drug reactions, drug and herbal product interactions, and medications errors. This course is intended to introduce students to drug information skills required to deliver pharmaceutical care. Students will be trained to develop the skills to obtain information from various literature and reference sources to answer drug information questions efficiently. Techniques for researching and evaluating drug literature will be covered. Emphasis will be placed on systemic approaches to formulation of responses utilizing both verbal and written communication skills.
Credits: 1

NTDP-625: Pharmacokinetics

In-depth discussions of the basic concepts of pharmacokinetics, the pharmacokinetics of drugs with narrow therapeutic range and the influence of pathophysiological and dosage form variables on drug therapy. Emphasis will be placed on the design and modification of drug dosage regimens in the individual patient and the use and reliability of drug assays for this purpose. Computer simulations and case studies will be used to complement the didactic teaching.
Credits: 4

NTDP-626: Principles of Pharmacy Administration

This course is an expansive and in-depth Introduction to Pharmacy Administration. It facilitates the student's management and leadership training by introducing them to a comprehensive overview of management and leadership principles, concepts, and practices in pharmacy-based environments. The course further addresses the economic, administrative, entrepreneurial, innovative, and human resource aspects of pharmacy practice while furthering students' knowledge on details about the US Health Care System.
Credits: 3

NTDP-627: Introduction Concepts

This course will be taught by the clinical faculty to provide instruction utilizing both didactic and practical experience sessions. The course is organized by organ systems of the human body and various diseases associated with them. Students will learn about the pathophysiology and pharmacotherapy of various disease states that health care practitioners (pharmacists) may encounter in their practice settings. Students will learn to make appropriate therapy choices, define goals of therapy, and learn to assess whether these goals are being achieved. Students will learn to create, implement, and monitor pharmaceutical care plans. A goal of this course is to prepare students with the ability to render pharmaceutical care and participate successfully for the experiential program.
Credits: 3

NTDP-628: Endocrine/Renal/GI

Integrated Therapeutics (IT) III lecture is the third component in the integrated therapeutics series designed to combine the pathophysiologic and pharmacotherapeutic management of various disease states encountered routinely by pharmacist practitioners. Where appropriate, cultural competency principles will be integrated with lecture topics. Student knowledge of basic pharmaceutical principles, acquired in IT-1, will be applied to clinical principles of additional organ systems presented in ITIII. This is a team-taught course.
Credits: 3

NTDP-629: Integrated Pharmaceutical Care and Science Laboratory: I-Care Lab

I-Care lab involves case study discussion for application of therapeutic decision-making high impact problems in pharmacy. The course is correlated with Integrated Pharmaceutical Care and Science. During the topic discussions addressed within the sequenced courses, students will participate in the applications laboratory in order to develop skills for applying information in a practice context.

Credits: 2

NTDP-630: Bone Joint and Immunology

The course is structured in a modular format and complemented with Integrative Therapeutics Laboratory with lectures, labs and onsite practice activities led by clinical faculty. In order for students to achieve the course goals and objectives, a variety of teaching methods will be applied. Students are required to participate actively in both flipped (30%) and non-flipped (70%) portions of the course to earn a passing grade. Traditional lectures will be replaced by first participating in online, blackboard assignments (Tegrity and discussion board and quizzes) before in class participation and small group discussions, role play, question, and answer sessions to reinforce didactic teachings and overall student learning. In class discussions will increase student presentation skills as they each role play to counsel patients on proper use of their prescribed medications; making optimal recommendations to physicians to alter prescription regimens and give general advise on best therapies for patients. This approach will also improve student communication skills, which have been a problem with the old approach of traditional lectures. Students will also gain/build confidence as they exercise critical thinking and interact with classmates on discussion board as well as in class discussions.

Credits: 3

NTDP-631: Special Populations

IT3C lecture is the final component in the integrated therapeutics series designed to combine the pathophysiologic and pharmacotherapeutic management of various disease states encountered routinely by pharmacist practitioners. Where appropriate, cultural competency principles will be integrated with lecture topics. Student knowledge of basic pharmaceutical principles, acquired in IT-1, will be applied to clinical principles of additional organ systems presented in ITIII-C.

Credits: 3

NTDP-632: Integrated Pharmaceutical Care and Science Laboratory: I-Care Lab-3

I-Care lab involves case study discussion for application of therapeutic decision-making high impact problems in pharmacy. The course is correlated with Integrated Pharmaceutical Care and Science. During the topic discussions addressed within the sequenced courses, students will participate in the applications laboratory in order to develop skills for applying information in a practice context.

Credits: 2

NTDP-633: Profess. Practice-1

The primary purpose of the NTDP APPE course is to ensure that the student is prepared to be an excellent practicing pharmacist in a variety of settings through the provision of structured pharmacy practice experiences.

Credits: 7

NTDP-634: Profess. Practice-2

The primary purpose of the NTDP APPE course is to ensure that the student is prepared to be an excellent practicing pharmacist in a variety of settings through the provision of structured pharmacy practice experiences.

Credits: 7

NTDP-635: Profess. Practice-3

The primary purpose of the NTDP APPE course is to ensure that the student is prepared to be an excellent practicing pharmacist in a variety of settings through the provision of structured pharmacy practice experiences.
Credits: 7

Nursing

NURC-503: Ethics for Health Professionals

Credits: 2

NURG-520: Teaching and Learning in Nursing Education

This course introduces students to major theoretical perspectives on nursing education/practice/research and how this body of knowledge can be used to guide policies and practices in nursing education to promote student learning and development, nursing research, and ultimately nursing practice.
Credits: 2

NURG-521: Curriculum and Instruction in Nursing Education

Includes philosophical values, educational concepts, and theories of learning used to link nursing education to standards of nursing practice. Guides students to develop curriculum plans and propose related teaching and evaluation strategies.
Credits: 3

NURG-522: Role Development as a Nurse Educator

In this course, students will examine the role of the nurse educator in relation to broader perspectives of selected higher education and/or health care agencies. Further, students will implement aspects of the nurse educator role in selected academic units, institutions, and in the profession of nursing.
Credits: 2

NURG-523: Nurse Educator Practicum

This course is an exploration of the nurse educator role in structuring teaching strategies that assure effective individual and group learning, safe clinical practice, and a commitment to lifelong learning. Nurse educator practicum placements are arranged within pre-licensure nursing education programs.
Credits: 2

NURG-524: Clinical Role Specialty for the Nurse Educator

Capstone clinical in a specialty focusing on critical examination, synthesis, and evaluation of professional nursing care. Client populations include individuals and/or groups reflecting diverse settings, ages, and ethnic communities. Emphasis on mastering theoretical concepts, applying theory and research findings, improving skill competency, and developing leadership capabilities in the clinical setting.
Credits: 2

NURG-525: Clinical Role Practicum for the Nurse Educator

This course is a continuation of prior nursing courses. Students will participate in clinical practicum experiences which provide opportunities to further develop competencies in patient-centered care, teamwork and collaboration, safety, quality, informatics, and evidence-based practice.
Credits: 2

NURG-526: Measurement and Evaluation in Nursing Education

Assessment of theories and strategies of measurement and evaluation as they apply to nursing education. Combines theories of measurement and evaluation with outcomes-based approaches to promote safe effective professional nursing practice. Experiential exercises in the development, use, and critique of measurement and evaluation methods to classroom and clinical learning situations as well as to nursing education program evaluation.
Credits: 3

Oboe

MUTU-100: Oboe Instruction

Private lessons to non-music major. Course can be repeated.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUTU-111: Oboe Minor

Consists of major and minor scales and arpeggios, tone production, and etudes and solos in all styles.
Credits: 2

MUTU-112: Oboe Minor

Consists of major and minor scales and arpeggios, tone production, and etudes and solos in all styles.
Credits: 2

MUTU-121: Oboe Minor
Continuation of MUTU-111, 112.
Credits: 2

Prerequisites:

MUTU-111, 112 or consent of instructor.

MUTU-122: Oboe Minor
Continuation of MUTU-111, 112.
Credits: 2

Prerequisites:

MUTU-111, 112 or consent of instructor.

MUTU-131: Oboe Minor
Continuation of MUTU-121, 122.
Credits: 2

Prerequisites:

MUTU-121, 122 or consent of instructor.

MUTU-132: Oboe Minor
Continuation of MUTU-121, 122.
Credits: 2

Prerequisites:

MUTU-121, 122 or consent of instructor.

MUTU-141: Oboe Minor

Continuation of MUTU-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUTU-131, 132 or consent of instructor.

MUTU-142: Oboe Minor

Continuation of MUTU-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUTU-131, 132 or consent of instructor.

MUTU-211: Oboe Major

Includes major and minor scales and arpeggios, along with etudes and solos in all styles.
Credits: 4

MUTU-212: Oboe Major

Includes major and minor scales and arpeggios, along with etudes and solos in all styles.
Credits: 4

MUTU-221: Oboe Major

Continuation of MUTU-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUTU-211, 212 or consent of instructor.

MUTU-222: Oboe Major

Continuation of MUTU-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUTU-211, 212 or consent of instructor.

MUTU-231: Oboe Major
Continuation of MUTU-221, 222.
Credits: 4

Prerequisites:

MUTU-221, 222 or consent of instructor.

MUTU-232: Oboe Major
Continuation of MUTU-221, 222.
Credits: 4

Prerequisites:

MUTU-221, 222 or consent of instructor.

MUTU-301: Graduate Oboe Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUTU-302: Graduate Oboe Minor II

A continuation of MUTU-301. This course builds upon Oboe performance techniques.
Credits: 3

MUTU-303: Graduate Oboe Minor III

A continuation of MUTU-302. This course builds upon Oboe performance techniques.
Credits: 3

MUTU-304: Graduate Oboe Minor IV

A continuation of MUTU-303. This course builds upon Oboe performance techniques.
Credits: 3

MUTU-311: Graduate Oboe Major I

Private instruction in performance for graduate students.
Credits: 5

MUTU-312: Graduate Oboe Major II

Private instruction in performance for graduate students.
Credits: 5

MUTU-321: Graduate Oboe Major III

Private instruction in performance for graduate students.
Credits: 5

MUTU-322: Graduate Oboe Major IV

Private instruction in performance for graduate students.
Credits: 5

Occupational Therapy (Grad)

OCCG-316: Clinical Kinesiology

This course is designed to study and analyze human movement and principles of physics in a person-environment-occupation context.
Credits: 3

OCCG-513: Clinical Neuroscience

This course covers basic principles of neural science followed by an examination of motivation and emotions within a neuroscience framework.
Credits: 3

OCCG-514: Principles of Disease

Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries.
Credits: 3

OCCG-515: Life Participation & Aging

This course provides an overview of aging with respect to leisure services. Physical, social, psychological, economic and political aspects of aging will be examined as they relate to designing recreation programs and leisure opportunities to improve the quality of life for older adults.
Credits: 2

OCCG-516: Human Performance & Movement Analysis

Students learn to critically analyze human movement patterns during the use of activities from the biomechanical ,developmental, cognitive, and psychosocial perspectives. Students exhibit the ability to analyze tasks and therapeutic media relative to areas of occupation, performance skills, performance patterns, activity demands, context(s), such as crafts, games and other activities. Students also learn to apply the teaching/ learning process, occupational analysis, ICIDH-2 classification, WHO and OT terminology under the Occupational Therapy Practice Framework to emphasize the health maintenance perspective of human occupation
Credits: 2

OCCG-517: Health & Wellness

This course focuses on the latest trends in health, nutrition, physical activity, and wellness. From stress management and sleep to overall wellbeing, we will explore personal health, health related attitudes and beliefs, and individual health behaviors..

Credits: 2

OCCG-518: Research Method in OT

Qualitative, quantitative, and mixed methods types of research are introduced and applied to relevant occupational therapy questions. Students acquire the fundamental skills of conducting research such as formulating research questions and identifying appropriate research designs and/or methods. Students also develop the ability to critically analyze research studies and apply the outcome to evidence-based practice in occupational therapy.

Credits: 2

OCCG-520: Pediatrics in OT

This course introduces the role and function of occupational therapy with pediatric populations and settings, including infancy, early childhood, middle childhood, adolescence, and young adulthood. This course introduces the student to physiological, cognitive, and psychosocial function commonly referred to pediatric occupational therapy practice. Evidence-based evaluation and screening, and intervention planning for dysfunction and health promotion are emphasized throughout the occupational therapy process and within the scope of practice for the occupational therapy assistant. The significance of utilizing a family-centered approach in the intervention of pediatric populations is emphasized.

Credits: 3

OCCG-521: OT Theory & Concepts

This course explores how occupational therapy can be used as a change process to impact and influence health at the individual and societal levels, given current healthcare trends. Using seminal literature and assigned textbooks, learners will critically analyze and apply theories and constructs that underlie the practice of current occupational therapy and determine theories' utility to explain and predict phenomena or therapeutic change.

Credits: 3

OCCG-523: Occupational Science

Occupational science is the scientific study of human occupation related to the purposeful and meaningful activities that comprise everyday life experiences. Within the curriculum students address the science of human occupation and occupation in practice.

Credits: 3

OCCG-530: Theories & Assessment in Mental Health

This course introduces students to major counseling theories that inform case conceptualization and practice in clinical settings. Students will learn to distinguish between different counseling interventions based upon client need and evidence-based research practices. Students will also examine how a counselor's self-awareness, self-reflection and self-care impact both treatment and establishing a strong therapeutic alliance.

Credits: 3

OCCG-531: Theories of Occupational Performance & Assessment in Physical Dysfunctions

This course focuses on the features of major diseases, injuries, and disorders on adult occupational performance. Physical dysfunction theories, models of practice, frames of reference that provide the foundation of occupational therapy.

Credits: 3

OCCG-532: Clinical Decision-Making I

This course has a number of learning activities in which the student retrieves, interprets through critical appraisal, and applies the results of scientific studies to determine the best course of action for a patient, whether a diagnostic procedure, a therapeutic intervention, or no intervention.
Credits: 1

OCCG-533: Analysis of Human Performance & Technology

This course is designed to explore the field of human performance improvement and focuses on the concepts and principles of human performance technology, human performance technology models, training needs assessment, and knowledge management.
Credits: 3

OCCG-534: OT Administration & Management

his course introduces the student to the health care delivery system from an administrative and management perspective. This course utilizes the basic skills of administration (planning, organizing, directing, coordinating, and controlling) in the development of a model of practice for occupational therapy services.
Credits: 2

OCCG-535: Independent Research Project I

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate.
Credits: 3

OCCG-537: Theories of Group Dynamics & Interventions in Mental Health

This course will introduce the basic theories and procedures of group counseling. Lecture, class discussion, demonstration and videotaped material will be utilized. Upon course completion, class participants should be able to demonstrate an understanding of theories and procedures used in group settings.
Credits: 3

OCCG-538: Theories of Occupational Performance & Intervention in Physical Dysfunctions
Focuses on the theory and application of occupational therapy in the evaluation and treatment of physical dysfunction.

Credits: 3

OCCG-539: Clinical Decision-making in OT II

A continuation of OCCG-532. This course has a number of learning activities in which the student retrieves, interprets through critical appraisal, and applies the results of scientific studies to determine the best course of action for a patient, whether a diagnostic procedure, a therapeutic intervention, or no intervention.
Credits: 1

OCCG-540: Theories of Human Performance & Interventions in Pediatrics

the student will analyze the structure and function of the human body, apply physiological and biomechanical concepts to human movement, examine the acquisition of motor skills, explore the multi-dimensional nature of the health and human performance discipline, examine ethical issues and culturally diverse values related to the discipline, achieve the specific physical skills required to be competent in their profession, acquire a lifelong quest for knowledge, and develop a commitment to act responsibly in one's profession and on behalf of one's community.
Credits: 3

OCCG-541: Fieldwork II Experience

This is a part-time fieldwork experience in settings in which primarily psychosocial services are provided, to apply theories and techniques to practice in assessment for individual and group interventions and includes a concurrent seminar session to reflect on experience.
Credits: 6

OCCG-542: Fieldwork III Experience

This is a part-time experience in settings serving children or older adult populations, within the community. Experiences are integrated into course content in order to use "real life" examples for application of key theoretical concepts of development across the lifespan. This course bridges classroom to practice experiences to develop student critical reasoning about the respective populations.
Credits: 6

OCCG-543: Clinical Decision Making In OT III

A continuation of OCCG-539. This course has a number of learning activities in which the student retrieves, interprets through critical appraisal, and applies the results of scientific studies to determine the best course of action for a patient, whether a diagnostic procedure, a therapeutic intervention, or no intervention.
Credits: 1

OCCG-544: Fieldwork Level I

This is a full-time fieldwork experience in an adult practice setting. Students will observe occupational therapy practice in a setting to support and expand their knowledge acquired in first semester course work.
Credits: 1

OCCG-545: Fieldwork Level (Intermediate)

This is a continuation of the part-time fieldwork experiences offered in the fall. Students participate in the alternate setting from OCCG-544 serving either children or older adult populations. Experiences continue to be integrated into the concurrent course content through the spring semester. This course continues to bridge classroom to practice experiences to prepare students for level II fieldwork.
Credits: 1

OCCG-546: Fieldwork Level I (Advanced)

Full-time experiential learning for the application of theory and skills to practice. Application of knowledge from the classroom and practice settings simultaneously with guidance from faculty and community fieldwork educators. Level II courses use active reflection to foster integrated learning through an on-line seminar.
Credits: 1

OCCG-616: Professional Issues & Ethics in OT

This course reviews the ethical guidelines occupational therapists must adhere to in order to maintain best practice throughout the provision of services. It considers occupational therapy scope of practice, the American Occupational Therapy Association's Code of Ethics, and the procedures associated with reporting and investigating potential breaches of that Code. Case scenarios are provided.
Credits: 2

OCCG-618: Independent Research Project in OT II

The purpose of this course is for the design and performance of research leading to a Masters in OT.
Credits: 1

OCCG-657: Evidence-Based Research

This course introduces the importance of research to improve clinical practice, strategies to evaluate the quality of research and evidence, and increase integration of research into practice.

Credits: 2

OCCG-701: Doctoral Capstone Experience

The student works closely with a faculty mentor to establish achievable learning and action objectives and a select a Capstone Experience site that is willing and able to partner with the OTD student to achieve the objectives. This experience is intended to be immersive and intense and at least 80% of the student's time will be spent on site with the critical stakeholders for the implementation of their project.
Credits: 6

OCCG-702: Doctoral Research Projects I

The purpose of this course is for the design and performance of research leading to an OTD.
Credits: 1

OCCG-704: Minority Health & Health Equity

This course will introduce students to the concept of health equity and will provide a broad overview of health disparities in the United States. The course will examine relevant historical issues, theories, and empirical data, emphasizing critical analysis and application of knowledge.
Credits: 3

OCCG-706: Doctoral Research Projects II

The purpose of this course is for the design and performance of research leading to an OTD.
Credits: 1

OCCG-707: Program Development, Entrepreneurship & Grant Writing

This course is designed for students who hope to enter professional careers requiring knowledge of grant writing
Credits: 3

OCCG-708: Doctoral Research Projects III

The purpose of this course is for the design and performance of research leading to an OTD.
Credits: 1

OCCG-709: Board Prep Seminar

Course will emphasize preparation for board examination in these areas including an annual competency and exam.
Credits: 3

OCCG-711: Capstone Project

The course teaches the research and development (R&D) cycle, beginning with the conceptual planning and review phases of an engineering project. The students practice project documentation, formal design review presentations, oral defense of the project, and writing a final report.
Credits: 3

OCCG-740: Evidence Based Research

This course introduces the importance of research to improve clinical practice, strategies to evaluate the quality of research and evidence, and increase integration of research into practice.
Credits: 3

OCCG-742: Organizational Leadership

This course examines organizational planning, the process of organizational decisionmaking, the early research on leadership that focuses on personal traits, motivation in organizations, communicating in organizations, teamwork in organizations, the principles of organizations, and organizational control.
Credits: 3

OCCG-760: Musculoskeletal Anatomy

This course entails the study of the structures, relationships and functions of specific joints and associated ligaments, tendons and muscles. It provides a foundation for understanding of the etiologies and anatomic basis of musculoskeletal diseases.
Credits: 4

Oral Diagnosis and Radiology

ORDR-107: Intro to Clinical Dentistry

This course is designed to provide the first-year dental students with an introduction to the various aspects of clinical dentistry. This is achieved by introducing the students to the various components of clinical dentistry through lecture, readings, and discussion. The students will become familiar with clinical terms and protocols of dentistry.
Credits: 1

ORDR-215: Oral and Maxillofacial Radiology

This course is designed to provide the student with a knowledge and understanding of the generation and use of x-radiation in the general practice of dentistry. Students will learn the biological implications of exposing patients to ionizing radiation (including x-rays) and the basic principles of radiographic interpretation.
Credits: 2

ORDR-230: Treatment Planning Lecture

This course is designed to give predoctoral dental students a basic understanding of the treatment planning process and provides the student with the fundamental knowledge that is needed to create a comprehensive treatment plan. Students are provided with cases and guided through treatment plans and will have the opportunity to develop and submit their own developed treatment plans based on these cases for assessment.
Credits: 1

ORDR-262: Summer Radiology Tech (D2)

The objective of this course is to broaden and deepen the student's theoretical knowledge and practical skills in clinical dental radiography. Upon completion of the course the student should be able to describe the process involved in exposing extraoral and intraoral film, the precautions and protection involved in exposing the film, the management of patient's during the process, infectious control and quality assurance in the process and interpret the film.
Credits: 1

ORDR-309: Principles of Medicine

The course is designed to give dental student a basic understanding of the etiology, clinical manifestations and management of the common systemic diseases encountered in the practice of dentistry. Emphasis will be placed on the specific oral correlations of diseases of the various major organ systems and upon the treatment of dental patients with existing conditions of these major organ systems. This course will endeavor to promote particular HUCD competencies.
Credits: 2

Oral Surgery

ORSU-222: Anesthesiology and Minor Oral Surgery

The aim of this course is to introduce the pre-clinical dental student to basic concepts associated with oral and maxillofacial surgery. Primarily the focus will be placed on local anesthesia and exodontia. This course will expose the sophomore dental student to material he/she should become familiar with prior to managing patients presenting to the Oral and Maxillofacial Surgery Clinic, as well as other clinical disciplines where the use of local anesthesia is employed in patient management. It is expected that the student should be able to correlate the knowledge obtained from the basic sciences with the clinical practice of local anesthesia and oral surgery. The student is strongly advised to review material from their basic sciences courses, as necessary. It is anticipated that the student will develop a strong foundation in local anesthesia and basic exodontia which will prepare him/her to perform in other clinical activities, as well as in more advanced oral surgery courses given in the third and fourth years of the dental curriculum.

Credits: 2

ORSU-223: Head & Neck Anatomy

This course is designed to afford the dental student with a comprehensive review of the anatomy of the head and neck as it relates to dental surgical procedures. The course is designed to present an intensive orderly approach to cranial anatomy with special reference to those regions which provide a background for the various aspects of practical dentistry. Further, the course is designed as a review and as an advanced presentation, with the presumption that the students have some knowledge of basic anatomy and physiology along with related terminology. The regions anterior to the vertebral-column and from the orbits to the hyoid bone will be covered in detail. The ear, larynx and neck viscera will not be treated in detail. Certain cranial and cervical relationships beyond the region of intensive study, however, will be reviewed as the course proceeds. Almost the entire course in head and neck anatomy is presented in terms of compartments or surgical spaces. Since most available American and English Texts do not organize the material in this way, this document will contain surgical spaces and compartments with their boundaries and contents in order to afford the student a better understanding of compartmental or relationship anatomy. During the course and review sessions visual aids of laboratory dissections of the various spaces and compartments of the head and neck will be presented and will be available to the students for individual study. Detailed lectures will not be given on the osteology of the skull and facial bone complex. However, the students will be held responsible for their individual study and 2 review of the osteology of the skull including the cranial cavity as this will also be included in the examinations for the evaluation of the student's progress in this course. It should be emphasized that the aim of this course is to provide an opportunity for the dental student to acquire a sound, well-organized and usable body of information on the anatomy of the head and neck regions.

Credits: 2

ORSU-322: Anesthesia and Minor Oral Surgery II

This course is sequential to the second year Anesthesiology and Minor Oral Surgery I lecture course. At this point in the third- year student's clinical and didactic experience, he/she should have developed an appreciation for the basic concepts and techniques of local anesthetic administration. An understanding of simple exodontia is also expected. The student is strongly advised to review material from the prerequisite and concomitant courses, as necessary. Throughout this course, it is anticipated that the student will strengthen an already firm foundation in proper evaluation of the surgical patient, including medical issues as well as efforts to avoid surgical complications. Various methods of pain control will also be introduced thus preparing the student for more advanced subsequent surgical instruction.

Credits: 1

ORSU-422: Major Oral Surgery II

This course is designed to introduce the fourth year (D4) dental students to the principles of Major Oral and Maxillofacial Surgery. This dental specialty requires an understanding of establishment of the diagnosis, surgical and adjunctive treatment of oro-facial diseases, injury, and defects, that include not only the functional but also the aesthetic aspect of both the hard and soft tissues of the oral regions. Fundamental concepts learned through the Anesthesiology and Minor Oral Surgery aspects of the curriculum will be expanded on in the treatment of patients in the Oral Surgery Clinic. In order to accomplish this phase, history taking, patient evaluation, patient oro-facial examination, radiographic interpretation, head and neck anatomy, physiology, pharmacology, and basic surgical instrumentation and documentation will be addressed. The student will use their knowledge of local anesthetics, including dosages, complications, mode of action, contraindications, and the techniques of administration (landmarks etc.) learned from previous courses in pharmacology and minor oral surgery. The student must have knowledge of the minimum armamentarium necessary to carry out the indicated surgical procedure. See note on page 577 related to courses with a range of credit hours.
Credits: 0-5

ORSU-423: Major Oral Surgery Seminar II

The purpose of this course is to expose the senior dental student to the surgical procedures included in the specialty of Oral and Maxillofacial Surgery, while at the same time reinforcing the principles and techniques covered in the courses entitled "Pain Control and Minor Oral Surgery I & II". Through the usage of seminars, lectures, visual aids and demonstrations the enrolled students will be exposed to all the important theories and techniques. The students will not be expected to completely manage the majority of conditions or perform most of the procedures presented in this course, they will, however, have a good basic understanding of the subject matter that should increase their overall proficiency in diagnosing, treatment planning and comprehensive patient management. They will also be able to correlate their knowledge of the basic sciences with the clinical practice that includes local anesthetics, types of medications and oral surgical procedures.
Credits: 5

Orthodontics

ORTH-316: Growth & Development/Orthodontic Lecture

This course is designed as a series of introductory lectures to familiarize the pre-doctoral dental student with the specialty of Orthodontics. The student first learns about abnormal and normal growth and development of the cranial facial complex including the dental, skeletal, soft tissue and embryological growth and development of the individual. This will equip the student to allow them to examine and identify the patient's status when it comes to growth and development. The student also learns to correlate the basic science of growth and development of the skeletal components and the teeth with overall growth. The student will also learn how to diagnose, create a problem list, treatment plan, treat and manage the adolescent and adult patient utilizing fixed and removable appliance therapy. Common orthodontic concerns such as malocclusions, dental discrepancies, skeletal discrepancies, space management (maintenance and regaining), rationales for interceptive and comprehensive treatment, as well as minor tooth movements will be addressed.
Credits: 2

ORTH-417: Orthodontics

This course is designed to continue the dialogue with the student to familiarize the future general dentist with the many aspects of the practice of Orthodontics. Orthodontics is a specialty of the practice of dentistry in which the general dentist does not usually engage. The lectures and slides presented will acquaint the general dentist with those portions of Orthodontic treatment in which he can participate as well as those reserved for the specialist. The lectures will also emphasize the role of the general dentist in the comprehensive dental care of a patient, especially one in which Orthodontic therapy is needed to promote and maintain oral health. At the end of the course, the student is expected to understand the role of the Orthodontist in the rendering of these services and understand the different treatment sequencing involved with these services.
Credits: 1

Pediatrics

PEDI-245: Pre-Clinical Ortho-Pediatric Dentistry

This course is designed to enhance the predoctoral student's knowledge of restorative treatment considerations for the primary tooth and the assessment of pediatric patients for various orthodontic treatment options (space maintainers, full fixed appliances, etc.). To better prepare students for and to ultimately increase the success rate on the NBDE II. Subject matter will be presented through lecture, laboratory activities and problem bases learning sessions. The lectures and labs are reinforced with 6 hours of independent lab sessions. Questions are constantly posed to stimulate discussion.
Credits: 3

Pedodontics

PEDO-249: Pediatric Dentistry I

This course will provide the pre-doctoral student with the fundamental knowledge and philosophy in the treatment of the pediatric patient. At the end of the course, the student should have acquired a basic understanding in the following areas: acquire diagnostic skills to evaluate the pediatric patient to become knowledgeable in formulating a comprehensive treatment plan, to become knowledgeable in child development and behavioral guidance techniques, recognition of gingival and periodontal conditions, pulpal and restorative techniques, how to manage traumatic injuries in the primary and permanent dentition, space management in the developing occlusion, recognition of child abuse and management of the special need patient.
Credits: 1

PEDO-481: Pediatric Dentistry II

This course is designed to give the predoctoral student a broad base of information concerning the specialty of pediatric dentistry. It meets for 50minutes each week with a midterm and final examination as the primary venue for evaluation. Quizzes are given to review material given in the classroom. Moreover, National Board questions are reviewed for the students to prepare for that standardized examination. Each student will be expected to write examination questions for the midterm and final.
Credits: 1

Percussion

MUSW-100: Percussion Instruction

Private lessons to non-music major. Permission of coordinator/instructor required.

Credits: 1

MUSW-111: Percussion Minor

Instruction in major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSW-112: Percussion Minor

Instruction in major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSW-121: Percussion Minor
Continuation of MUSW-111, 112.
Credits: 2

Prerequisites:

MUSW-111, 112, or consent of instructor.

MUSW-122: Percussion Minor
Continuation of MUSW-111, 112.
Credits: 2

Prerequisites:

MUSW-111, 112, or consent of instructor.

MUSW-131: Percussion Minor
Continuation of MUSW-121, 122.
Credits: 2

Prerequisites:

MUSW-121, 122, or consent of instructor.

MUSW-132: Percussion Minor
Continuation of MUSW-121, 122.
Credits: 2

Prerequisites:

MUSW-121, 122, or consent of instructor.

MUSW-141: Percussion Minor

Continuation of MUSW-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSW-131, 132, or consent of instructor.

MUSW-142: Percussion Minor

Continuation of MUSW-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSW-131, 132, or consent of instructor.

MUSW-151: Percussion Minor

Continuation of MUSW-141, 142.

Credits: 2

Prerequisites:

MUSW-141, 142 or consent of instructor.

MUSW-152: Percussion Minor

Continuation of MUSW-141, 142.

Credits: 2

Prerequisites:

MUSW-141, 142 or consent of instructor.

MUSW-211: Percussion Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSW-212: Percussion Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSW-221: Percussion Major

Continuation of MUSW-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSW-211, 212, or consent of instructor.

MUSW-222: Percussion Major

Continuation of MUSW-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSW-211, 212, or consent of instructor.

MUSW-231: Percussion Major
Continuation of MUSW-221, 222.
Credits: 4

Prerequisites:

MUSW-221, 222, or consent of instructor.

MUSW-232: Percussion Major
Continuation of MUSW-221, 222.
Credits: 4

Prerequisites:

MUSW-221, 222, or consent of instructor.

MUSW-241: Percussion Major

Continuation of MUSW-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSW-231, 232, or consent of instructor.

MUSW-242: Percussion Major

Continuation of MUSW-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSW-231, 232, or consent of instructor.

MUSW-301: Graduate Percussion Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSW-302: Graduate Percussion Minor II

A continuation of MUSW-301. This course builds upon Percussion performance techniques.
Credits: 3

MUSW-303: Graduate Percussion Minor III

A continuation of MUSW-302. This course builds upon Percussion performance techniques.
Credits: 3

MUSW-304: Graduate Percussion Minor IV

A continuation of MUSW-303. This course builds upon Percussion performance techniques.
Credits: 3

MUSW-305: Drum Set I (Grad)

Instruction of advanced jazz drum set technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

MUSW-306: Drum Set II (Grad)

Instruction of advanced jazz drum set technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

MUSW-307: Drum Set III (Grad)

Instruction of advanced jazz drum set technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

MUSW-308: Drum Set IV (Grad)

Instruction of advanced jazz drum set technique and idiomatic playing.
Credits: 3

Prerequisites:

Audition required.

MUSW-311: Graduate Percussion Major I

Private instruction in performance for graduate students.
Credits: 5

MUSW-312: Graduate Percussion Major II

Private instruction in performance for graduate students.
Credits: 5

MUSW-321: Graduate Percussion Major III

Private instruction in performance for graduate students.
Credits: 5

MUSW-322: Graduate Percussion Major IV

Private instruction in performance for graduate students.

Credits: 5

Percussion Ensemble

MUSX-301: Graduate Percussion Ensemble

Rehearsals each week will be utilized for instruction in both percussion performance techniques and chamber percussion performance skills encompassing the various styles of the avante garde, standard works, marimba band, commercial/jazz, transcriptions, and original student compositions and arrangements.
Credits: 1

Periodontics

PERI-115: Introduction to (Pre-Clinical) Periodontics

This course is structured to prepare the dental student for clinical treatment of patients with periodontal disease. The student will learn to recognize normal anatomical periodontal structures and understand the importance of accurate probing in the identification of periodontal status. Chairside operator positioning, performance of recordation of patient blood pressure/vital signs, and an awareness of the limits of normal and abnormal will be covered. Students will implement proper asepsis, demonstrate proper infection control technique, and use of Personal Protective Equipment. Periodontal instruments and indications for use will be demonstrated and procedural technique will be evaluated.
Credits: 1

PERI-117: Introduction to Periodontics Lecture

This course is designed to present a series of didactic lectures in periodontics to dental students. The present series covers the physiologic and clinical features of healthy periodontal tissues and introduction to the physical examination. It also covers the systemic influences on the periodontal patient, as well as on the periodontium. The students will also learn the importance of optimal oral home care and etiologic factors associated with periodontal disease.
Credits: 1

PERI-218: Periodontics I Lecture

This course is designed to continue the presentation of a series of didactic lectures in periodontics to second year dental student. The present series covers the physiologic and clinical features of periodontal tissues in health and disease. Presentation of periodontal tissues in health and diseased states will be presented. Effects of various kinds of stressors on these tissues will be discussed. The pathogenesis of periodontal pockets and their impact on other tissues will be explained.
Credits: 1

PERI-260: Periodontics Lab I & II (D2)

This course is structured to prepare the dental student for clinical treatment of patients with periodontal disease. Upon completion of the course, the student should be able to recognize normal anatomical structures; perform a head and neck examination; demonstrate accurate probing technique; perform an oral prophylaxis and polishing; familiar with all forms of periodontal disease, scaling and root planing procedures; identify hand instruments and perform instrument sharpening; interpret diagnostic radiographs; demonstrate proper patient and chair positioning and asepsis techniques; discuss etiology, epidemiology & prevention of periodontal disease; recommend plaque control & describe appropriate patient motivation methods of disease control for patients at all levels.
Credits: 1

PERI-318: Periodontics II

This course advances the Periodontics curriculum into a discussion of the basic and surgical principles of Periodontology, and relevance and application to clinical implementation. In turn, therapeutic and self-administered pharmaceuticals and their impact upon overall systemic health and treatment outcomes are presented. Dental implants and regenerative surgery will be covered along with surgical techniques and the indications and contraindications. Biomedical sciences associated with systemic health of the patient and that of the biomaterials used in the management of the periodontium will stimulate critical thinking and problem solving in determination of use in basic and advanced modalities of Periodontal therapy.
Credits: 1

PERI-415: Periodontics III

The main emphasis of this course is on the understanding of basic principles of periodontics and their application to clinical situations. The rationale for each treatment procedure is heavily stressed. Comprehensive periodontal treatment including restorative, prosthetics, endodontics, and implant dentistry are emphasized. Upon completion of this course, the student should be able to diagnosis periodontal disease, formulate a comprehensive treatment plan, and determine what treatment procedures fall within his (her) expertise and what should be referred.
Credits: 1

Pharmaceutical Science

PHSC-302: Research in Pharmaceutical Sciences

The course deals with an introduction to techniques and methodologies in pharmaceutical sciences research. Emphasis on literature retrieval, design/conduct of experiments on a specific problem, analysis and interpretation of data for a written report.
Credits: 3

Prerequisites:

All Department of Pharmaceutical Sciences Courses in the first-year (fall and spring); minimum cumulative GPA of 2.75; and, permission of the instructor.

PHSC-307: Pharmaceutics

The design of the course is based on the integration of the study of physicochemical principles of pharmacy with formulation and preparation of pharmaceutical dosage forms. The integration is done within each main class of pharmaceutical dosage forms. The study of the physicochemical principles of pharmacy serves as a prologue to the materials covered in each section. Then the application of the knowledge of the physicochemical principles of pharmacy to the rational formulation, preparation/compounding, quality control, stability, packaging and storage of pharmaceutical dosage forms follows directly after the study of the physicochemical principles for each module (i.e., each major class of dosage forms).
Credits: 4

PHSC-308: Pharmacological Therapeutics II

This is a continuation of Pharmacological Therapeutics I. The course deals with the study and application of physico-chemical properties and the relationship between chemical structure and pharmacological activities of organic medicinal agents of natural and synthetic origin.
Credits: 3

PHSC-309: Pharmaceutical Chemistry II

This is a continuation of Pharmaceutical Chemistry I. The course deals with the study and application of physico-chemical properties and the relationship between chemical structure and pharmacological activities of

organic medicinal agents of natural and synthetic origin.
Credits: 3

PHSC-312: Pharmacological Therapeutics I

The course deals with the study and application of physico-chemical properties and the relationship between chemical structure and pharmacological activities of organic medicinal agents of natural and synthetic origin
Credits: 3

PHSC-313: Pharmaceutical Calculations II

This course is the continuation of Pharmaceutical Calculation I course. Quantitative skills necessary for an understanding of the 37 basic and clinical pharmaceutical sciences will be explored. Various techniques necessary in pharmaceutical calculations employed by the pharmacist in formulation, compounding, manufacturing and dispensing of medications will be discussed. The course will also provide the student with the development of skills to recognize errors in prescribing in both oral and written medication orders, basic patient and professional staff communication and basic patient data collection skill. Commonly used equipment and pharmaceutical dosing devices available in a variety of simulated practice settings will be introduced.
Credits: 2

PHSC-314: Pharmacokinetics

At the end of the course, the student should have acquired competency in the selection, design and adjustment of drug dosing regimens to optimize patient therapy on the basis of the patient's age and disease condition and the drug's pharmacokinetic and pharmacodynamic properties. Special emphasis is placed on those drugs with narrow therapeutic windows, which require therapeutic monitoring.
Credits: 4

Prerequisites:

Biopharmaceutics

PHSC-315: Pharmaceutical Chemistry I

The course deals with the study and application of physico-chemical properties and the relationship between chemical structure and pharmacological activities of organic medicinal agents of natural and synthetic origin.
Credits: 3

PHSC-316: Physico-chemical Principles of Pharmacy

Drug action is dependent on a range of physico-chemical principles. These relate not only to the drug substance, or active pharmaceutical ingredient, but also to the excipients used in the production of the dosage form. An understanding of these physico-chemical principles affords a better understanding of drug action, and an appreciation of the factors that may influence such drug action. Course work and laboratory exercises relating to physico-chemical principles are not part of the pharmacy curriculum since the emphasis is on the clinical aspects. However, this course has been designed to provide a basic understanding of the factors involved. Various examples will be discussed during class time which may, in some instances, also include a laboratory demonstration. The latter affords students the opportunity to observe certain effects where physico-chemical principles play a role.
Credits: 2

PHSC-317: Structures & Functions in Therapeutics

This course is designed to provide the student with the fundamental knowledge of the general structure and function of the human body. A short introduction to basic cell structure, tissues, human development and physiological control mechanisms & membrane transport is given at the beginning of the course to help the student acquire a better understanding of human anatomy and physiology. Instruction using the systemic approach has been adopted for this course. This method provides a better correlation among the tissues and organs and their functions of a particular system and between the systems themselves. A systemic approach also promotes the understanding of structure and function of the human body. The lectures are designed to give the student fundamental and essential knowledge of the human body's various organ systems. Slide projections, power point presentations, computer simulations and lecture outlines are used as teaching aids in this course. Work in the laboratory provides students with the opportunity to study prosecuted cadaver materials, anatomical models and physiological applications. Students are further guided by printed laboratory organization and objectives.
Credits: 2

PHSC-319: Making Medicines

The Process of Drug Development is an innovative, eLearning course geared toward students with an interest in health and science fields with an emphasis on gaining knowledge in the area of medical research.
Credits: 3

PHSC-320: Anions and Cations in Biological Systems

The course deals with the study and application of physico-chemical properties and the relationship between chemical structure and pharmacological activities of inorganic medicinal agents.
Credits: 3

Prerequisites:

Pharmaceutical Chemistry I and Pharmacological Therapeutics I.

PHSC-321: Applications for Pharmacy Practice

The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice I course is the first in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios.
Credits: 1

PHSC-323: Pharm Calculations I

Quantitative skills necessary for an understanding of the 37 basic and clinical pharmaceutical sciences will be explored. Various techniques necessary in pharmaceutical calculations employed by the pharmacist in formulation, compounding, manufacturing and dispensing of medications will be discussed. The course will also provide the student with the development of skills to recognize errors in prescribing in both oral and written medication orders, basic patient and professional staff communication and basic patient data collection skill. Commonly used equipment and pharmaceutical dosing devices available in a variety of simulated practice settings will be introduced.
Credits: 2

PHSC-325: New Informatics Technologies in Pharmacy

Virtual Reality (VR), Augmented Reality (AR), and Artificial Intelligence (AI) have been broad and fast-growing subfields of Informatics Technologies in recent years. We've heard all the media buzz, so what are the science, technology, and art issues to building these immersive and compelling experiences? And what are the impacts of those powerful techniques on traditional healthcare businesses, especially the Pharmacy as a profession? This course provides an overview of history, methods, and applications of VR, AR and AI. It covers current topics of hardware, software, interaction, psychology, algorithms (particularly machine learning), problem solving, and research that are involved in those technologies. In addition to the lectures, there will be course projects that the user will build their own virtual environments in Pharmacy settings, using novel interface and display devices. The apps and sample codes will be provided. However, the lectures will not provide any support to completing the projects, but rather to complement the learning. In the end, this course will inform the way the PharmD students can approach and contribute to those emerging technologies, thus prepare them well for the future development.
Credits: 3

Prerequisites:

None

PHSC-336: Pharm Compounding Lab

The application of the knowledge of Physico-chemical principles to the formulation, compounding, quality control and storage of pharmaceutical dosage forms.
Credits: 2

Prerequisites:

Pharmaceutics.

PHSC-347: Applications for Pharmacy Practice 2

This is a continuation of Application in Pharmacy Practice I course. The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice I course is the first in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios.
Credits: 1

PHSC-373: Applications for Pharmacy Practice 4

This is a continuation of Application in Pharmacy Practice 3 course. The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice 4 course is the fourth in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios.CL
Credits: 1

PHSC-398: Advanced Biopharmaceutics

This course provides the student with a practical understanding of the principles of biopharmaceutics that can be applied to drug product development and drug therapy. This course remains unique in teaching basic concepts that may be applied to understanding complex issues associated with in vivo drug delivery that are

essential for safe and efficacious drug therapy.
Credits: 3

PHSC-401: Research Rotation

The purpose of this class is to work with faculty to conduct/prepare for elective course/research.
Credits: 3

PHSC-410: Applied Pharmacokinetics

Pharmacokinetics describe "what the body does to a drug" and thus is a central feature of applied pharmacology. The course will develop an understanding of the role that pharmacokinetics play in all aspects of drug administration, distribution, metabolism and excretion and how these effects can be modelled and predicted graphically and mathematically. Such modelling is a fundament of therapeutic regimen design, drug development, clinical pharmacology and drug safety and will be considered within all of these contexts providing a broad and relevant appreciation of the importance of pharmacokinetics to the Pharmaceutical Scientist
Credits: 3

PHSC-422: Drug Design in Pharmaceutical Sciences

This course covers the basic principles of how new drugs are discovered with emphasis on lead identification, lead optimization, classification and kinetics of molecules targeting enzymes and receptors, prodrug design and applications, as well as structure-based drug design methods.
Credits: 3

PHSC-423: Advances in Drug Delivery Systems

This course addresses Novel Drug delivery System (NDDS). It addresses the approaches, formulations, technologies, and systems for transporting a pharmaceutical compound in the body as needed to safely achieve its desired therapeutic effects. NDDS is a system for delivery of drugs other than conventional drug delivery systems. NDDS is a combination of advance technique and new dosage forms which are far better than conventional dosage forms.
Credits: 3

PHSC-425: Organometalic Chemistry in Drug Synthesis

This course is designed to introduce the students to the advanced concepts of organometallic chemistry and its applications towards the synthesis of biologically interesting compounds, such as drugs and druglike molecules. The course will emphasize the underlying principles of reactivity, transition state analysis, name reactions and applications in heterocyclic chemistry.
Credits: 3

PHSC-429: Biopharmaceutics

This course discusses basic concepts in pharmacokinetics (kinetics of drug absorption, distribution and elimination); bioavailability (rate and extent of absorption); influence of physicochemical, formulation, physiologic and disease variables on pharmacokinetics and bioavailability; and rationale for drug and dosage selection and monitoring in patient care.
Credits: 3

Prerequisites:

Pharmaceutical Chemistry I&II, Pharmacological Therapeutics I&II, Pharmaceutics and Physico-chemical principles of pharmacy.

PHSC-430: Advanced Pharmacy Administration

This is a core course within the pharmacy administration track and requires successful completion of Principles of Pharmacy Care Management, Biostatistics and Research Methods, Research Design and Methods and Pharmacoepidemiology prerequisites for enrollment. This course will first introduce them to the history of pharmacy administration, then introduce them to skills on critiquing pharmacoeconomics articles and then introduce them to advanced topics in the field of pharmacy administration. Students will also be required to perform a systematic review on a topic of their choosing and submit the work for publication in a scientific journal. In addition, the student will perform presentations on various topics.
Credits: 3

PHSC-434: Pharm Care Organizational Management

This course is an expansive and in-depth Introduction to Pharmacy Care Management and Pharmacy Administration. It facilitates the student's management and leadership training by introducing them to a comprehensive overview of management and leadership principles, concepts and practices in pharmacy based environments. The course further addresses the economic, administrative and human aspects of pharmacy practice while introducing students to details about the US HealthCare System and the specific roles of pharmacists.
Credits: 3

PHSC-438: Applications for Pharmacy Practice 3

This is a continuation of Application in Pharmacy Practice 2 course. The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice 3 course is the third in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios.
Credits: 1

PHSC-509: Principles of Drug Formulation

The course is based on basic knowledge within the pharmaceutics and broadens and deepens the knowledge regarding formulation and production especially of solid preparations in aim to prepare the students for experimental scientific work and industrial pharmaceutical activities within this topic of pharmaceutics. In the course, the following subject matter is treated: Characterization of the physical properties of solid material: Solid-state analysis, particle size analysis and particle statistics, form analysis, form factors, surface and pore-size analysis, analysis of mechanical properties and transmission at and modelling of the compression process. Formulation principles of controlled/optimized releasement and absorption of drugs: Systems for nasal, pulmonary and cutaneous drug administration and basic physiological aspects for pharmaceutical formulation. Formulation, stabilization and lyophilization of protein-targeted drugs and optimized administration of these
Credits: 3

PHSC-511: Biostatistics

This course introduces the biostatistics methods and their application of statistics in biology and biomedical science.
Credits: 4

PHSC-523: Molecular Modeling

The course includes 4 units teachings on computational chemistry, molecular modeling, elements of chemoinformatics, and drug design and discovery. Unit 1 focuses on experimental aspects and computer models of molecules and their behavior in gas and condensed phases; quantum and molecular mechanics etc. Unit 2 focuses on molecular modeling which includes ligand-based Drug Design, Quantitative structure-activity relationships (QSAR)- Introduction of Molecular Descriptors (1D,2D and 3D), Statistical analysis- Linear and Nonlinear Methods etc. Unit 3 focuses on history of chemoinformatics, definition of chemoinformatics, chemical structure representation as well as introduction to chemical structure file formats etc. Lastly, Unit 4 focuses on drug design and discovery of contour of Drugs -Development of New Drugs - molecular recognition in drug design- Introduction to molecular diversity etc.
Credits: 3

PHSC-535: Pharmacoeconomics I

The course will familiarize students with terms, concepts, and methods utilized in pharmacoeconomic research. The advantages and disadvantages of different tools and methods will be discussed. The course will use a variety of teaching strategies including lecture, small and in class discussions. Students will be evaluated using quizzes and will be required to write a paper and do a presentation(s).
Credits: 3

PHSC-537: Pharmacoepidemiology

The Pharmacoepidemiology and Outcomes Research section is an introduction to the evaluation of the scientific studies that supports the rational use of medication use in humans. The goals of this block is to provide opportunities for students to understand the concepts, methods, and applications of pharmacoepidemiology, pharmacoeconomics, and outcomes studies utilized in clinical settings as well as with to provide tools to critically assess the clinical literature. In addition, the methods for the interpretational and generalization of findings from these studies relevant to medical and pharmaceutical care practice will be introduced by utilizing knowledge developed from the Research Methods/Biostatistics block. Students will be also prepared for problem-based critique sessions in the Integrative Therapeutics blocks.
Credits: 3

PHSC-601: Seminar

The goal of the course is to expose graduate students in the Department of Pharmaceutical Sciences to the faculty research in our department. Students will be presented with a number of research topics, including pharmaceutics, pharmacokinetics, medicinal chemistry, Pharmacy administration, pharmaceutics, pharmacoepidemiology, pharmacoeconomics, Regulatory Affairs. In addition to the presentations by faculty members, several guest speakers will present their research topics and discuss their opinions on science careers outside of academia (i.e., industry, medical writing, medical science liaison, etc.). Through exposure to these diverse research topics, students will become more well-rounded scientists and become more aware of career opportunities that are available to them
Credits: 2

PHSC-602: Seminar

The goal of the course is to expose graduate students in the Department of Pharmaceutical Sciences to the faculty research in our department. Students will be presented with a number of research topics, including pharmaceutics, pharmacokinetics, medicinal chemistry, Pharmacy administration, pharmaceutics, pharmacoepidemiology, pharmacoeconomics, Regulatory Affairs. In addition to the presentations by faculty members, several guest speakers will present their research topics and discuss their opinions on science careers outside of academia (i.e., industry, medical writing, medical science liaison, etc.). Through exposure to these diverse research topics, students will become more well-rounded scientists and become more aware of career opportunities that are available to them
Credits: 1

PHSC-604: Dissertation Writing

Supervised execution of the doctoral dissertation.
Credits: 3

Prerequisites:

Successful completion of doctoral qualifying examination and admission to candidacy.

PHSC-609: Statistical Experimental Design and Optimization

The goal of the course is to expose students to Experimental Design Stages so that they may be able to a) Identify the factors which may affect the results of an experiment; b) Design an experiment so that the effects of uncontrolled factors are minimized; and c) Use statistical analysis to separate and evaluate results.
Credits: 3

PHSC-611: Advanced Pharmacy Administration II

A continuation of PHSC-430. This is a core course within the pharmacy administration track and requires successful completion of Principles of Pharmacy Care Management, Biostatistics and Research Methods, Research Design and Methods and Pharmacoepidemiology prerequisites for enrollment. This course will first introduce them to the history of pharmacy administration, then introduce them to skills on critiquing pharmacoeconomics articles and then introduce them to advanced topics in the field of pharmacy administration. Students will also be required to perform a systematic review on a topic of their choosing and submit the work for publication in a scientific journal. In addition, the student will perform presentations on various topics.
Credits: 3

PHSC-612: Pharmacoeconomics II

A continuation of PHSC-535. The course will familiarize students with terms, concepts, and methods utilized in pharmacoeconomic research. The advantages and disadvantages of different tools and methods will be discussed. The course will use a variety of teaching strategies including lecture, small and in class discussions. Students will be evaluated using quizzes and will be required to write a paper and do a presentation(s).
Credits: 3

PHSC-631: Research Design and Methods

The purpose of this class is to introduce graduate students to the scientific process in research design and methodology for identification, solution and reporting of a specific problem relevant to basic pharmaceutical sciences, social/behavioral, and health services research. Emphasis will be given to acquire skills for literature retrieval and understanding on design of studies, analysis and interpretation of data. Each student will conduct an extensive literature evaluation and do a journal critique and attend relevant workshops in order to be successful in this course.
Credits: 3

PHSC-632: Advanced Statistics

This course provides an overview of statistical methods for analyzing correlated data produced by longitudinal measurements taken over time. Topics include study design, exploratory data analysis techniques and linear mixed effects regression models.

PHSC-647: Advanced Physical Pharmacy

This course covers the physical and chemical principles in drug formulation design, with emphasis on such topics as solutions of nonelectrolytes and electrolytes, ionic equilibria, drug complexation, reaction kinetics, mass transport, and interfacial phenomena.
Credits: 3

PHSC-701: Research

The purpose of this class is to work with faculty to conduct/prepare for elective course/research. See note on page 577 related to research and dissertation hours

Credits: 9

PHSC-702: Foundations of Cancer Targeting

This course discusses the foundational principles associated with the design and development of delivery systems for passive cancer targeting. As a foundational concept to cancer targeting, the enhanced permeability and retention (EPR) effect is introduced and discussed. All the challenges associated with the EPR effect are discussed and different drug delivery strategies that utilize the EPR effect are described. Additionally, approaches to improve the efficiency of the EPR effect are discussed. Primary literature is the sole resource used in this course and students are encouraged to interact and discuss these principles in a practical manner.
Credits: 3

PHSC-703: Proposal Writing

This course introduces students to the process of creating a competitive grant proposal. Students critique funding opportunities and develop a project consistent with the Request For Proposal (RFP). Detailed examination of the proposal components are considered, including the narrative, methodology and budget
Credits: 3

PHSC-707: Cancer Targeting Approaches for Drug Delivery Applications

This course essentially deals with the ways and mechanisms of active targeting to tumors. The different active targeting methods and chemistries used in drug delivery systems/applications are discussed. Specifically, we discuss examples of drug targeting to tumors using the pH differential of the tumor microenvironment and endosomes, drug targeting and release mechanisms via enzymes such as proteases for drug targeting, and selective targeting to receptors overexpressed on the surface of cancer cells. Primary literature is the sole resource used in this course and students are encouraged to interact and discuss these principles in a practical manner.
Credits: 3

PHSC-714: Drug Stability & Packaging

Governing bodies as well as pharmaceutical companies are paying great attention to the stability of drug products to enable delivery of the products to the final consumer in good quality. Packaging plays a major role in providing stability to the pharmaceutical products. This course discusses factors influencing stability of drugs and the techniques of packaging to maintain stability of the products.
Credits: 3

PHSC-747: Nano Therapeutics

This course addresses the biomedical applications of nanoparticles and helps students think and become aware be aware of the issues involved in the design of nanoparticles and biomedical applications of nanoparticles. Students learn to anticipate new and novel developments and applications and are urged to think creatively with a future bent.
Credits: 3

PHSC-801: Dissertation

The purpose of this class is to work with faculty to conduct/prepare research for proposal/dissertation. See note on page 577 related to dissertation hours.
Credits: 9

Pharmacology

CLPS-347: Applications for Pharmacy Practice 2

This is a continuation of Application in Pharmacy Practice I course. The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice I course is the first in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios.
Credits: 1

CLPS-373: Applications for Pharmacy Practice 4

This is a continuation of Application in Pharmacy Practice 3 course. The course will be co-coordinated by clinical and basic science faculty, who will provide instruction utilizing both didactic and practical teaching modalities. The applications for pharmacy practice 4 course is the fourth in a longitudinal series of courses meant to fully integrate knowledge and skills acquired from each course running during the same semester. It aims to incorporate the entrustable professional activities (EPAs), which emphasize practical applications for being a clinical pharmacist, using interactive and case-based learning activities during scheduled 3-hour sessions. Students will learn the purpose of the material taught in each course as well as how that material may be applied in practice-based real-world scenarios
Credits: 1

PHAR-200: Introduction to General Principles of Pharmacology

The history and principles of pharmacology. Covers pharmacodynamics, pharmacokinetics, pharmacogenetics pharmacogenomics, neurotransmitters and their receptor systems and signaling pathways.
Credits: 3

PHAR-201: Introduction to Pharmacological Research Methods

Covers the basic concepts of laboratory best practices, use of animals for research, use of radioactive materials in research, human research, and the use of chemical compounds in research, including drugs and toxins. Part of the course is hands-on workshops in the labs of faculty members teaching the course.
Credits: 3

PHAR-202: Experimental Design and Statistical Methods

Elementary statistics with applications to fundamental pharmacological and toxicology evaluations.
Credits: 4

PHAR-203: Intro to theory and Methods in Toxicology

Laboratory methods in toxicology and quantitative determinations of pharmacologically active and toxic agents.
Credits: 4

Prerequisites:

215-20

PHAR-204: Literature Seminar

It covers the basics of Research Writing and Presentations. How to prepare a poster, write an research article, and how to write a grant.
Credits: 1

PHAR-205: Research Seminar

Seminar on contemporary research topics by outstanding scientists. Students must write a synopsis of the presentation and present discuss the topic with the speaker.
Credits: 1

PHAR-206: Special Problems in Cardiovascular Pharmacology

Laboratory with discussion on the action of drugs pertaining to the cardiovascular system.
Credits: 4

Prerequisites:

201, BIOC-101, PHSI-171, 216, 217.

PHAR-208: Advanced Problems in Pharmacology

Advanced laboratory procedures in autonomic and cardiovascular pharmacology.
Credits: 4

Prerequisites:

201, BIOC-101, PHSI-171, 216, 217. See page 577 for additional information related to courses with a range of hours.

PHAR-209: Drug Development in Clinical Pharmacology

This course will provide an overview of the drug development process, focusing on drug development science, regulation, and industry from the U.S. perspective. Most sessions will consist of a brief didactic overview of the day's topic, followed by discussion of a primary scientific publication that emphasizes the most important principles covered.
Credits: 2

PHAR-210: Drug Metabolism

Study of biochemical mechanisms responsible for the biotransformation of drugs and chemicals.
Credits: 2

PHAR-212: Cellular and Biochemical Pharmacology

Studies of biochemical mechanisms of action of drugs or chemicals, Drug Receptor Theory, reaction mechanisms, cellular ultrastructure considerations, methodologies, kinetics, and current topics in molecular pharmacology.
Credits: 2

PHAR-213: Methods in Biochemical Pharmacology

A practical hands-on experience in laboratory technology.
Credits: 3

PHAR-216: General and Systematic Pharmacology I

Lectures and demonstrations dealing with the basic principles of pharmacology, and systems pharmacology.
Credits: 4

Prerequisites:

PHAR-200, BIOC-101, PHSI-171.

PHAR-217: General and Systematic Pharmacology II

Lectures and demonstrations dealing with systemic pharmacology.

Credits: 4

Prerequisites:

201, 216, BIOC-101 and PHSI-171.

PHAR-219: Graduate Biomedical Informatics

This is the core introductory course for students beginning a master's degree in Biomedical Informatics or for students in other graduate degree programs seeking an introductory overview of the core theories, challenges, research methods and areas for the development of health information management systems and applications.
Credits: 2

PHAR-220: Alcohol Studies

Covers topics from genetics of alcoholism to the molecular effects of alcohol in various tissues and organs, and the treatments of alcoholism.
Credits: 2

PHAR-252: Cellular and Molecular Physiology

The course develops a foundation in human physiology by examining the homeostasis of vital parameters within the body, and the biophysical properties of cells, tissues, and organs. Basic concepts in cell and membrane physiology are synthesized through exploring the function of skeletal, smooth, and cardiac muscle.
Credits: 3

PHAR-300: Advanced Problems in Toxicology

Responses of isolated organ systems and tissues to various toxicological agents, including methods used in biological assay.
Credits: 3

PHAR-301: Forensic Toxicology

Detection and quantitation of pharmacologically active and toxicologically important agents in tissue, blood, and other body fluids.
Credits: 3

Prerequisites:

215-170 and 215-172.

PHAR-302: Biological Effects of Toxic Substances

The toxicology of important insecticides, rodenticides, herbicides, fungicides, antioxidants, food colors, and such heavy metals as lead and mercury.
Credits: 3

Prerequisites:

Instructor'92s consent.

PHAR-303: Skin, Eye, and Inhalation Toxicology

Methods for determining toxicity to or via skin, eye, and respiratory system.
Credits: 3

PHAR-304: Drug Interaction and Iatrogenic Disease

Examination of toxicity resulting from combinations of drugs and chemicals, including therapeutic agents.
Credits: 3

PHAR-305: Neuro-Behavioral Toxicology

Analysis of the toxic effects of drugs and chemicals on various central nervous system functions and behavior.
Credits: 3

PHAR-306: Teratology and Mutagenesis

Study of the effects of drugs and chemicals on embryonic and fetal development and on genetic apparatus.
Credits: 3

PHAR-307: Chemical Pathology

Presentation of the histological and histochemical changes induced by drugs and chemicals on organs and tissues.
Credits: 3

PHAR-308: Clinical Toxicology

A study of the toxic effects of drugs and chemicals on humans resulting from industrial, environmental, or therapeutic short-term massive or long-term, low-level exposures.
Credits: 3

PHAR-309: Carcinogenesis

Comparative study of chemical carcinogens, with emphasis on their reactions with cellular macromolecules and on the methods employed to screen agents for carcinogenic activity.
Credits: 3

PHAR-310: Good Laboratory Practices

Overview of the biology of laboratory animals, emphasizing their anatomical variation, biochemistry, physiology, and common diseases.
Credits: 2

PHAR-400: Research (M.S. Thesis or Ph.D. Dissertation)

*Note: This course can be taken for a maximum of 10 credits with the student taking 2 credits per semester.
Credits: 1-2

PHAR-401: Thesis Writing for M.S

Writing the thesis of the research performed. See note on page 577 related to courses with a range of credit hours. See note on page 577 related to thesis hours.
Credits: 1

PHAR-402: Dissertation Writing for PhD

Writing the dissertation of the research performed. See note on page 577 related to courses with a range of credit hours. See note on page 577 related to dissertation hours.
Credits: 1

PHAR-424: Special Problems in Neuropharmacology

Laboratory procedures for studying drug actions on the peripheral and central nervous system.
Credits: 4

Prerequisites:

201, BIOC-101, PHSI-171, 216, 217. See note on page 577 related to courses with a range of credit hours.

PHAR-425: Advanced Seminar on Special Topics

Review of the concepts of the mode of drug action, drug resistance, structure activity relationship, antimetabolites, neurohormones or other hot topics. See note on page 577 related to courses with a range of credit hours and special topics courses.
Credits: 2

Physical Therapy

PHTH-700: Advanced Human Anatomy

In this course the student will learn to identify the components of the human body. Emphasis will be on muscles, bones, arteries, and nerves including observation of thoracic and abdominal relationships. Cadaver specimens, models, slides, computer programs and lectures will be presented.

Credits: 5

PHTH-701: Clinical Kinesiology

Students will learn how the body functions as a mechanical movement generator. Joint structure and function will be emphasized. Principles of biomechanics will be applied to human movement with an emphasis on gait and balance.
Credits: 3

PHTH-702: Clinical Process in PT Practice

This course introduces the clinical process of physical therapy practice. Emphasis is placed on fundamental skills and techniques utilized in patient care. Topics include professional behavior, communication, examination, assessment, mobility, and documentation. This course is presented through lecture, laboratory and clinical experiences.
Credits: 3

PHTH-703: Tests and Measurements

This course introduces the student to the clinical skills of physical therapy practice. Emphasis is placed on fundamental skills and techniques utilized in patient care. Topics include concepts of measurement and testing. This course is presented through lecture, laboratory and clinical experiences.
Credits: 2

PHTH-704: Introduction to Physical Agents

This course introduced the students to physical agents and modalities commonly used in physical therapy practice. This course is presented through lecture, laboratory and clinical experiences.
Credits: 2

PHTH-706: Pathophysiology

This course provides students with a foundation of human pathology and physiology, enabling them to have a general understanding of the disease process and how diseases affect the normal function of human cells and tissues. The pathology of human systems is integrated later in the program as part of the content of the clinical courses.
Credits: 2

PHTH-707: Introduction to Radiology 1

This lecture course will provide the student with an overview of radiography and its role within the health care delivery system. A radiographer's responsibilities will be outlined. Students will be oriented to academic and administrative structures, key departments and personnel in diagnostic imaging and to the profession as a whole. Basic x-ray equipment design and types of diagnostic imaging examinations performed will be introduced.
Credits: 1

PHTH-708: Clinical Rehab. Medicine 2

This course is an interactive online seminar designed to provide the Allied Health Student with Clinical pathology concepts that are studied within the context of each system in the body. Basic concepts learned in PHTH-700 Pathophysiology will be used to enable the student to understand the clinical signs and symptoms, progression and outcomes of pathological conditions. Strong emphasis will be placed on the Musculoskeletal system, Nervous system, as well as Cardiovascular and Integumentary disorders in order to prepare the student for advanced study courses later in the PT curriculum.
Credits: 2

PHTH-710: Neurobiology

Students will be presented with information on the foundation of the structure and function of the nervous system. This course will present a background in neurobiology that will enable the students to use the information in understanding neurological pathologies as the rationale for diagnosis, prognosis and

therapeutic interventions later in the program.
Credits: 4

PHTH-711: Introduction to the MS System

This course is an applied course that introduces the student to the basic skills required in evaluation and treatment of the musculoskeletal system. The student will understand the pathophysiology, impairment, functional limitations, disabilities and societal limitations caused by various musculoskeletal conditions. Medical management and PT intervention including clinical modalities and gait will be introduced.
Credits: 4

PHTH-712: Introduction to the CP System

This course is an applied course that introduces the student to the basic skills required in evaluation and treatment of the cardiopulmonary system. The student will understand the pathophysiology, impairment, functional limitations, disabilities and societal limitations caused by various cardiopulmonary conditions. Medical management and PT intervention will be introduced.
Credits: 3

PHTH-713: Intro to Therapeutic Exercise

Students will explore the principles of exercise prescription and develop competency in the selection, implementation, and progression of therapeutic exercise.
Credits: 2

PHTH-714: Intro to Evidence-Based Practice

This course is specifically designed to allow for integration of clinical concepts presented in individual courses. Students are presented with basic research methodologies and statistics as they relate to evidencebased practice in physical therapy. Tutorials and case studies are included.
Credits: 2

PHTH-715: Introduction to PT Practice

This course is the first in a series of courses related to professional issues in physical therapy practice and serves as a foundation for future coursework. Topics introduced in this course include psychology of health, ethics, educational foundations, and scientific inquiry.
Credits: 2

PHTH-716: Lifespan Development 2

This course introduces the student to the lifespan development of the individual and relates that process to physical therapy practice. Physiological development, psychological development, social issues, environmental issues, cultural issues and family issues will be presented.
Credits: 2

PHTH-717: Introduction to Pharmacology 2

This course introduces the basic principles of pharmacology and precautions as it relates to physical therapy practice. Main topics include: pharmacokinetics; pharmacodynamics; routes of drug administration; drugs and cellular receptors; age, sex and race considerations in pharmacology; teratogenicity and drugs; and principle of decision-making in pharmacology. Pharmacology as it relates to various human systems (equivalent of 2 credit hours) is integrated later in the program as part of the content of the clinical courses.
Credits: 2

PHTH-720: Introductory Clinical Internship

This course serves to introduce the student to full-time clinical experience (8 weeks) in which the student is provided the opportunity to apply theory and clinical skills acquired during didactic coursework in the clinical setting. Students will complete a patient case report and present one in-service during this clinical experience.
Credits: 1

PHTH-722: Intro to the Neuromuscular System

This course is an applied course that introduces the student to the basic skills required in evaluation and treatment of the neuromuscular system. The student will understand the pathophysiology, impairment, functional limitations, disabilities and societal limitations caused by various neuromuscular conditions. Medical management and PT interventions including clinical modalities will be introduced.
Credits: 4

PHTH-723: Advanced Study of the MS System

This advanced course builds on the applied knowledge presented in Introduction to Musculoskeletal System. The evaluation of the pathophysiology, impairments, functional limitations, disabilities, and societal limitations of various injuries and the physical therapy interventions will be addressed. Students will be introduced to management of specific conditions including orthotics, prosthetics, and spinal dysfunction. This course includes a clinical experience component.
Credits: 4

PHTH-724: Advanced Study of the CP System

This course is an advanced course that builds on the knowledge gained in the Introduction to Cardiopulmonary System. The student will be introduced to the pathophysiology, cardiopulmonary pharmacology, impairment, functional limitations, disabilities and societal limitations caused by various cardiopulmonary conditions. Medical management and PT intervention will be emphasized. This course includes a clinical experience component.
Credits: 3

PHTH-725: PT Health Admin and Policy

An introductory course for undergraduate students in understanding the basic methods of interdisciplinary health services research and program evaluation in health systems and policy. The course covers a variety of topics related to policy, management, and program evaluation in health delivery systems.
Credits: 2

PHTH-726: Adv. Evidence Based Practice

This course is specifically designed to allow for integration of concepts presented in previous coursework related to evidence-based practice. Concepts specific to the capstone project and case reports will be introduced. Students will also participate in tutorials and review case studies.
Credits: 2

PHTH-729: Integ. Assessment and Intervention

This course is an applied course that introduces the student to the basic skills required in evaluation and treatment of the integumentary system. The student will understand the pathophysiology, impairment, functional limitations, disabilities and societal limitations caused by various integumentary conditions. Medical management and PT intervention will be introduced. This course includes a clinical experience component The student will be introduced to the pathophysiology, integumentary pharmacology, impairment, functional limitations, disabilities and societal limitations caused by various integumentary conditions. Medical management and PT intervention will be emphasized.
Credits: 3

PHTH-730: Adv Study of the Neuro System

This advanced course builds on the applied knowledge presented in Introduction to Neuromuscular System. The evaluation of the pathophysiology, impairments, functional limitations, disabilities, and societal limitations of neuromuscular various injuries, and the physical therapy interventions will be addressed. Students will be introduced to the management of complex neurological conditions, frequently treated by physical therapists. This course includes a clinical experience component.

Credits: 4

PHTH-731: Integrative Clinical Issues in PT

Students will integrate previously learned material to address issues related to independent practice. This course will reinforce the student's knowledge and skills related to differential diagnosis, spinal dysfunction, radiography and related issues.
Credits: 4

PHTH-732: PT in Special Populations

Integration of materials previously learned will be emphasized in this course. Students will be presented with information specific to special populations including pediatrics, geriatrics, developmental disabilities, African Americans and other minorities.
Credits: 4

PHTH-733: Integrative Clinical Seminar

This course is designed to allow for advanced integration of concepts presented in individual courses. Students will participate in tutorials, clinical experiences, review case studies, and prepare a case report. This course prepares the student for their final clinical practicum experiences. This course also allows the faculty to assess the student's knowledge at this point in the professional program. This integrative comprehensive examination will also prepare the student for taking their board examination at the end of the professional program.
Credits: 4

PHTH-736: Medical Imaging

This course introduces the student to medical terminology. Emphasis is placed on terminology pertinent to diagnostic radiology.
Credits: 2

PHTH-741: Advanced Clinical Internship I

This is an advanced full-time clinical experience (7 weeks) in which the student is provided with the opportunity to apply theory and clinical skills acquired during didactic coursework in the clinical setting. Students will complete a patient case report and present one in-service during this clinical experience.
Credits: 1

PHTH-742: Advanced Clinical Internship II

This is an advanced full-time clinical experience (7 weeks) in which the student is provided with the opportunity to apply theory and clinical skills acquired during didactic coursework in the clinical setting. Students will complete a patient case report and present one in-service during this clinical experience.
Credits: 1

PHTH-743: Clinical Specialty Internship

This is a full-time, 8-week clinical experience period, during which the student is provided the opportunity to apply theory and clinical skills acquired during didactic coursework to a specialized clinical setting (dependent upon available clinical sites). Students will complete a patient case report and present one in-service during this clinical experience.
Credits: 8

PHTH-744: Capstone Project

This course provides an opportunity for students to synthesize the knowledge and skills gained in the DPT program into an individual research project. The project involves investigation and integration of current literature as well as implementation, using current best practices. The project will be supervised by a capstone committee and will include a substantial written report and oral defense.
Credits: 2

PHTH-745: Wellness Practice

Students will integrate previously learned material to plan for and participate in wellness practice for individuals and groups. Concepts of patient education, health promotion and disease prevention will also be reinforced.
Credits: 2

PHTH-761: Health Mgt, Finance, Ethics & Law

Students will survey health care law as it applies to physical therapy practice. Topics will include reimbursement, direct access, liability, malpractice, identifying applicable Health care law, and fraud and abuse. The student will examine prospective legislative actions that affect health care and the practice of physical therapy. The students will be introduced to ethical, bioethical and legal issues, as well as patient-provider relationships, and the concepts of moral judgment. Issues confronting health care professionals and practitioners within the practice setting will also be presented. Emphasis on the team approach to health care, through case analysis, is one of several approaches utilized to teach application of decision-making models.
Credits: 2

PHTH-762: Clinical Management in PT

This course is a continuation of the thread of professional issues that runs throughout the DPT curriculum. It provides a presentation of the current critical issues in physical therapy practice and prepares the student for practice in an autonomous health care environment. This course will also reinforce the student's knowledge and skills related to safety, differential diagnosis, spinal dysfunction, and radiography.
Credits: 2

Physician Assistant

PHAS-21: Clinical Medicine 1

Covers the foundational knowledge and skills necessary for learning clinical medicine.
Credits: 4

PHAS-22: Clinical Medicine 2

Sophomore medical students will develop core medical knowledge, skills, and attitudes necessary to take an appropriate medical history, perform an appropriate physical examination and develop a reasonable differential diagnosis in the evaluation and management of a patient.
Credits: 4

PHAS-31: Medicine Clerkship

The clinical clerkship in Medicine is intended to enable the student to understand the clinical correlation of basic science knowledge and to acquire further medical information and clinical skills necessary for understanding and management of commonly encountered medical problems and diseases of adult patients
Credits: 12

PHAS-50: Obstetrics-Gynecology Clerkship

The Obstetrics and Gynecology (OBGYN) Clerkship utilizes a variety of well-supervised clinical settings to provide students with a broad array of hands-on educational opportunities. Organized interactive learning experiences and directed self-study allow motivated students to establish a solid foundation of skills and knowledge essential for any future career choice.
Credits: 8

PHAS-52: Pediatrics Clerkship

The core clerkship in Pediatrics is an eight-week experience in which students care for patients in both inpatient and outpatient (ambulatory) settings. The clerkship focuses on general pediatrics, but students participate in the care of patients with sub-specialty needs as well.
Credits: 8

PHAS-53: Surgery Clerkship

The Surgery core clerkship is an eight (8) week experience served in both ambulatory and inpatient settings.
Credits: 8

PHAS-54: Emergency Medicine Clerkship

This clerkship provides experience in caring for patients who present to the Emergency Department with a variety of acute and subacute problems. The emphasis is on learning to stabilize and correctly triage critically ill and injured patients, as well as common emergent conditions.
Credits: 2

PHAS-57: Psychiatry Clerkship

The psychiatry clerkship utilizes a wide variety of clinical settings including adult and child outpatient and inpatient settings. For most students, this will be their only supervised learning experience in Psychiatry. In such a short time, all of Psychiatry cannot possibly be covered.
Credits: 6

Physics

PHYS-200: Modern Physics

Introduction to quantum physics and relativity. Includes discussion of Schrodinger equation and its application to atomic and molecular spectra, a brief introduction to lasers, solid state, nuclear physics, elementary particles. This course covers the same materials as PHYS-190, 191, however, additional assignments are given to graduate students.
Credits: 3

PHYS-201: Modern Physics

Introduction to quantum physics and relativity. Includes discussion of Schrodinger equation and its application to atomic and molecular spectra, a brief introduction to lasers, solid state, nuclear physics ,elementary particles. This course covers the same materials as PHYS-190, 191, however, additional assignments are given to graduate students.
Credits: 3

PHYS-202: Optics

Explores refraction, optical instruments, interference, diffraction ,and polarization.
Credits: 3

PHYS-203: Thermodynamics

Introduces the laws of thermodynamics and applications, along with kinetic theory and statistical mechanics.
Credits: 3

PHYS-204: Electricity and Magnetism

One-year intermediate level course which covers electrostatics, magnetostatics, electric circuits, Maxwell's equations and electromagnetic waves.
Credits: 3

PHYS-204: Electricity and Magnetism

One-year intermediate level course which covers electrostatics, magnetostatics, electric circuits, Maxwell's equations and electromagnetic waves.
Credits: 3

PHYS-205: Electricity and Magnetism

One-year intermediate level course which covers electrostatics, magnetostatics, electric circuits, Maxwell's equations and electromagnetic waves.
Credits: 3

PHYS-205: Electricity and Magnetism

One-year intermediate level course which covers electrostatics, magnetostatics, electric circuits, Maxwell's equations and electromagnetic waves.
Credits: 3

PHYS-208: Physical Mechanics

This one-year course examines particle and rigid body dynamics, central forces, vector analysis, oscillatory motion, and Lagrangian mechanics.
Credits: 3

PHYS-209: Physical Mechanics

This one-year course examines particle and rigid body dynamics, central forces, vector analysis, oscillatory motion, and Lagrangian mechanics.
Credits: 3

PHYS-210: Classical Mechanics I

Study of Lagrangian and Hamiltonian mechanics, variational methods, central force problems, rigid body motion, small oscillations and canonical transformations.
Credits: 3

PHYS-211: Classical Mechanics II

Study of Lagrangian and Hamiltonian mechanics, variational methods, central force problems, rigid body motion, small oscillations and canonical transformations.
Credits: 3

PHYS-214: Electromagnetic Theory

Electrostatics, magnetostatics, Maxwell equations, electromagnetic waves, waveguides, radiation scattering and diffraction, special theory of relativity, radiation by moving charges.
Credits: 3

PHYS-214: Electromagnetic Theory

Electrostatics, magnetostatics, Maxwell equations, electromagnetic waves, waveguides, radiation scattering and diffraction, special theory of relativity, radiation by moving charges.
Credits: 3

Prerequisites:

PHYS-178, 179 orPHYS-204/205.

PHYS-215: Electromagnetic Theory II

Electrostatics, magnetostatics, Maxwell equations, electromagnetic waves, waveguides, radiation scattering and diffraction, special theory of relativity, radiation by moving charges.

Credits: 3

PHYS-215: Electromagnetic Theory II

Electrostatics, magnetostatics, Maxwell equations, electromagnetic waves, waveguides, radiation scattering and diffraction, special theory of relativity, radiation by moving charges.
Credits: 3

Prerequisites:

PHYS-178, 179 orPHYS-204/205.

PHYS-216: Mathematical Methods in Physics

A study of vectors, matrices, tensors, linear transformations, complex variables, Fourier series, orthogonal functions, partial differential equations of physics, Fourier and Laplace transforms.
Credits: 3

PHYS-216: Mathematical Methods in Physics I

This course is designed to provide the mathematical skills needed by physics students to de well in their career. It consists of training topics in linear algebra and functional analysis such as transformation in linear vector space and matrix theory, Hilbert space and complete sets of orthogonal functions, etc.
Credits: 3

PHYS-216: Mathematical Methods in Physics

A study of vectors, matrices, tensors, linear transformations, complex variables, Fourier series, orthogonal functions, partial differential equations of physics, Fourier and Laplace transforms.
Credits: 3

PHYS-217: Mathematical Methods in Physics II

A study of vectors, matrices, tensors, linear transformations, complex variables, Fourier series, orthogonal functions, partial differential equations of physics, Fourier and Laplace transforms.
Credits: 3

PHYS-217: Mathematical Methods in Physics II

A study of vectors, matrices, tensors, linear transformations, complex variables, Fourier series, orthogonal functions, partial differential equations of physics, Fourier and Laplace transforms.
Credits: 3

PHYS-218: Advanced Laboratory

Experimental projects in spectroscopy, electronics, nuclear physics, low temperature and Solid- State Physics.
Credits: 3

PHYS-219: Advanced Laboratory

Experimental projects in spectroscopy, electronics, nuclear physics, low temperature and Solid- State Physics.
Credits: 3

PHYS-219: Advanced Laboratory

Experimental projects in spectroscopy, electronics, nuclear physics, low temperature and Solid- State Physics.
Credits: 3

PHYS-220: Quantum Mechanics I

A study of wave and matrix mechanics, angular momentum, perturbation theory, scattering theory, and applications. Physics.
Credits: 3

PHYS-221: Quantum Mechanics II

A study of wave and matrix mechanics, angular momentum, perturbation theory, scattering theory, and applications.

Credits: 3

PHYS-222: Statistical Mechanics

Ensemble theory, classical and quantum statistics, dense gases and liquids, magnetism, applications in solid state physics, superfluids, superconductivity, kinetic theories, special topics.
Credits: 3

PHYS-222: Statistical Mechanics

Ensemble theory, classical and quantum statistics, dense gases and liquids, magnetism, applications in solid state physics, superfluids, superconductivity, kinetic theories, special topics.
Credits: 3

PHYS-223: Statistical Mechanics

Ensemble theory, classical and quantum statistics, dense gases and liquids, magnetism, applications in solid state physics, superfluids, superconductivity, kinetic theories, special topics.
Credits: 3

PHYS-223: Statistical Mechanics

Ensemble theory, classical and quantum statistics, dense gases and liquids, magnetism, applications in solid state physics, superfluids, superconductivity, kinetic theories, special topics.
Credits: 3

PHYS-226: Solid State Physics

Crystal lattice, X-ray diffraction, electron in periodic potential, Bloch theorem, band structure, semiconductors, phonons, optical properties, amorphous structures, superconductivity, special topics.
Credits: 3

PHYS-227: Solid State Physics

Crystal lattice, X-ray diffraction, electron in periodic potential, Bloch theorem, band structure, semiconductors, phonons, optical properties, amorphous structures, superconductivity, special topics.
Credits: 3

PHYS-230: Current Issues in Physics Education

This course examines issues in teaching physics at the introductory level to a diverse student population. Topics include laboratory experiences, test taking skills, and reading comprehension, as well as physics content.
Credits: 3

PHYS-232: Advanced Geophysical Fluid Dynamics

This course provides an advanced treatment of fluid-flow phenomena in the atmosphere and will cover nonlinear wave theory and its use in the development and interpretation of the atmosphere. Hydrodynamics instability mechanism, which are in present in atmospheric flow and turbulence, will also be covered.
Credits: 3

PHYS-233: Advanced Geophysical Fluid Dynamics

This course provides an advanced treatment of fluid-flow phenomena in the atmosphere and will cover nonlinear wave theory and its use in the development and interpretation of the atmosphere. Hydrodynamics instability mechanism, which are in present in atmospheric flow and turbulence, will also be covered.
Credits: 3

PHYS-234: Introduction to Atmospheric Science

Introductory course designed to provide a comprehensive background in weather, climate, and atmospheric optics. Lectures will stress the understanding and application of basic principles of physics and chemistry for

semi-quantitative description of the Earth's atmosphere.
Credits: 3

PHYS-235: Molecular Simulation

This course will introduce students to the range of methods currently being used to simulate the behavior of matter at the molecular scale. Basic methods for equilibrium Monte Carlo and molecular dynamics simulations will be described, including techniques for generating different ensembles and calculating free energies and phase equilibria. Assignments will involve applying these methods to sample problems. Papers of related work will be discussed.
Credits: 3

PHYS-236: Electronic Physics

An examination of analog and digital electronics and instrumentation. Consists of two one-hour lectures and a two-hour laboratory.
Credits: 3

PHYS-237: Electronic Physics

An examination of analog and digital electronics and instrumentation. Consists of two one-hour lectures and a two-hour laboratory.
Credits: 3

PHYS-238: Theoretical Physics

Special topics of current interest in mathematical physics and in quantum and statistical physics. See page 577 for additional information related to Special Topics courses.
Credits: 3

PHYS-239: Theoretical Physics

Special topics of current interest in mathematical physics and in quantum and statistical physics. See page 577 for additional information related to Special Topics courses.
Credits: 3

PHYS-250: Atmospheric Physics

Atmospheric thermodynamics, hydrostatics, cloud and radiative processes and chemical cycles. Cloud physics and formation, energy balance, and the impact on global climate. Elementary dynamics with applications to the earth and planetary atmospheres.
Credits: 3

PHYS-251: Atmospheric Physics

Atmospheric thermodynamics, hydrostatics, cloud and radiative processes and chemical cycles. Cloud physics and formation, energy balance, and the impact on global climate. Elementary dynamics with applications to the earth and planetary atmospheres.
Credits: 3

PHYS-252: Remote Sensing of the Atmosphere

Elements of radiative transfer as applied to the upper and lower atmospheres and ocean surface. Both passive and active remote sensing methods are discussed. Satellite technology and applications to the understanding of the Earth and extraterrestrial atmospheres will be discussed.
Credits: 3

PHYS-253: Atmospheric Radiation

Application of radiative transfer theory to problems in planetary atmospheres, with primary emphasis on the Earth's atmosphere; principles of atomic and molecular spectroscopy; infrared band representation; absorption and emissions of atmospheric gases; radiation flux and flux divergence computations; radiative transfer and fluid motions; additional application such as greenhouse effect ,inversion methods and climate models.

Credits: 3

PHYS-254: Current Topics in Atmospheric Physics

Atmospheric Thermodynamics, hydrostatics, cloud and radiative processes, and chemical cycles. Cloud physics and formation, energy balance, and the impact on global climate. Elementary dynamics with applications to the Earth and planetary atmospheres.
Credits: 1

PHYS-266: Advanced Mathematical Methods in Physics

A selection of group theory, calculus of variations, integral equations, differential geometry, homotopy, homology, cohomology, K-theory and other topics with applications to physics.
Credits: 3

PHYS-267: Advanced Mathematical Methods in Physics

A selection of group theory, calculus of variations, integral equations, differential geometry, homotopy, homology, cohomology,K-theory and other topics with applications to physics.
Credits: 3

PHYS-276: Advanced Topics in Quantum Mechanics

Quantum radiation theory, relativistic quantum theory, and covariant perturbation theory.
Credits: 3

PHYS-277: Advanced Topics in Quantum Mechanics

Quantum radiation theory, relativistic quantum theory, and covariant perturbation theory. For General Seminar classes and Special Topics classes below, see page 577 for additional information related to Special Topics courses.
Credits: 3

PHYS-278: General Seminar

Lectures on current topics of interest in physics. specific topics will vary based upon current events and most recent scientific findings.
Credits: 3

PHYS-279: General Seminar

Lectures on current topics of interest in physics. specific topics will vary based upon current events and most recent scientific findings.
Credits: 3

PHYS-280: General Seminar

Lectures on current topics of interest in physics. specific topics will vary based upon current events and most recent scientific findings.
Credits: 2

PHYS-281: General Seminar

Lectures on current topics of interest in physics. specific topics will vary based upon current events and most recent scientific findings.
Credits: 2

PHYS-282: General Seminar

Lectures on current topics of interest in physics. specific topics will vary based upon current events and most recent scientific findings.
Credits: 1

PHYS-283: General Seminar

Lectures on current topics of interest in physics. specific topics will vary based upon current events and most recent scientific findings.

Credits: 1

PHYS-284: Special Topics in Astrophysics

Current topics of interest in astrophysics.
Credits: 3

PHYS-285: Special Topics in Astrophysics

Current topics of interest in astrophysics.
Credits: 3

PHYS-286: Special Topics in Laser Spectroscopy

Current research problems of interest in astrophysics.
Credits: 3

PHYS-287: Special Topics in Laser Spectroscopy

Current research problems of interest in astrophysics.
Credits: 3

PHYS-290: Special Topics in Statistical Mechanics

Special topics of current interest in statistical mechanics.
Credits: 3

PHYS-291: Special Topics in Statistical Mechanics

Special topics of current interest in statistical mechanics.
Credits: 3

PHYS-292: Special Topics in Solid-State Physics

Special topics of current interest in Solid-State Physics.
Credits: 3

PHYS-293: Special Topics in Solid-State Physics

Special topics of current interest in Solid-State Physics.
Credits: 3

PHYS-298: Graduate Research.

Supervised research for students without approved thesis or dissertation topics. See note on page 577 related to research hours.
Credits: 1-6

PHYS-299: Graduate Research

Supervised research for students without approved thesis or dissertation topics. See note on page 577 related to research hours.
Credits: 1-6

PHYS-300: M.S. Thesis Research

Independent research for the M.S. degree. See note on page 577 related to thesis hours.
Credits: 6

PHYS-301: M.S. Thesis Research

Independent research for the M.S. degree. See note on page 577 related to thesis hours.
Credits: 1-6

PHYS-400: Ph.D. Dissertation Research

Independent research for the Ph.D. degree. See note on page 577 related to dissertation hours.
Credits: 12

PHYS-401: Ph.D. Dissertation Research

Independent research for the Ph.D. degree. See note on page 577 related to dissertation hours.
Credits: 6

Physiology

PHSI-171: Basic Medical Physiology

Provides an understanding how cells, tissues, organs, and organ systems function together to create one organism. Furthermore, the course lays the basis for understanding diagnosis and treatment of diseases.
Credits: 7

PHSI-200: Research in Physiology

A research problem is approved and supervised by members of the staff and is conducted by the student. The course number is dependent on the number of credits a semester.
Credits: 9

PHSI-202: Advanced Physiology Seminar

Weekly forum for the presentation and discussion of research findings and topics of current research interest. Presentations are made by graduate students, department faculty and scientists from other institutions.
Credits: 1

PHSI-204: Advanced Mammalian Physiology

The course includes a detailed study of the organ systems with emphasis on human physiology; it does not include the nervous system which is covered separately in the Neurophysiology course.
Credits: 7

PHSI-206: Neurophysiology

This course is a comprehensive study of the human nervous system. We will review the fundamental structures of the brain, spinal cord, and peripheral nervous system to better understand the amazing function of the nervous system. Neuroanatomy will be integrated into the functional aspects of the course. See page 577 for additional information related to courses with a range of hours.
Credits: 3

PHSI-251: Advanced Endocrinology

This advanced level course in endocrinology will focus to provide a well-rounded and up-todate curriculum to address both basics and advancement in comparative (multi-species) endocrinology. Graduate students enrolled in this course will attend lectures, laboratories on endocrine research techniques, prepare essays and present to the class.
Credits: 3

PHSI-252: Cell and Molecular Physiology

The course provides an overview of the mammalian special sensory systems, including molecular and cellular bases of vision, audition, taste, olfaction, and somatosensation. Faculty with focus in those areas lead presentations and discussions on peripheral and central mechanisms.
Credits: 3

PHSI-260: Cardiovascular Physiology

This course focuses on the physiology and pathophysiology of the cardiovascular system. Unit One covers molecular and cellular aspects of cardiovascular tissues, the vascular endothelium, cardiac and smooth muscle

and cell communication.
Credits: 3

PHSI-269: Renal Physiology

This course will expose students to in-depth discussion and understanding of several aspects of kidney function, as follows: physiological control of glomerular filtration and glomerular function in renal disease; regulation of renal sodium excretion; morphology of renal transporters; renal mechanisms of acid base balance; and the renal physiologic responses to normal pregnancy.
Credits: 3

PHSI-282: Physiology of Homeostasis

Principles of membrane biophysics, biological transport, control systems, acid-base balance, as well as regulation of fluids and electrolytes. Prerequisite for Advanced Mammalian Physiology.
Credits: 3

PHSI-300: Thesis Seminar

This is a credit for the oral defense and is only taken during the semester of the dissertation defense. Students must deliver a pre-defense seminar to their dissertation committee and submit an approved Intent to Defend form prior to registering for this credit. This course is reserved for graduate students majoring in Physiology.
Credits: 1

PHSI-302: Special Problems in Physiology

Research laboratory rotations and short-term research projects of limited scope are carried out in areas of physiology other than that of the thesis project. Area and project are selected and mutually approved by the faculty member supervising the project and the student. The course section number is dependent on the number of credits. This course is reserved for graduate students majoring in Physiology.
Credits: 4

PIANO

MUSE-301: Graduate Piano Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSE-302: Graduate Piano Minor II

A continuation of MUSE-301. This course builds upon piano performance techniques.
Credits: 3

MUSE-303: Graduate Piano Minor III

A continuation of MUSE-302. This course builds upon piano performance techniques.
Credits: 3

MUSE-304: Graduate Piano Minor IV

A continuation of MUSE-303. This course builds upon piano performance techniques.
Credits: 3

MUSE-311: Graduate Piano Major I

Private instruction in performance for graduate students
Credits: 5

MUSE-312: Graduate Piano Major II

Private instruction in performance for graduate students
Credits: 5

MUSE-321: Graduate Piano Major III

Private instruction in performance for graduate students
Credits: 5

MUSE-322: Graduate Piano Major IV

Private instruction in performance for graduate students
Credits: 5

MUSE-371: Graduate Piano Literature I

Private instruction in performance for graduate students
Credits: 3

MUSE-372: Graduate Piano Literature II

This course is designed for piano majors and minors and explains the major currents in music history through the study and analysis of the keyboard repertoire of major composers. This course covers the socio-cultural context that influenced major composers and their works.
Credits: 3

Piano Ensemble

MUSZ-311: Piano Trio (Graduate)

Students will be assigned with piano duet/ duo/ trio works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.
Credits: 1

MUSZ-312: Piano Trio (Graduate)

A continuation of MUSZ-311. This course build upon the practice of assigned piano duet/ duo/ trio works.
Credits: 1

Political Science

POLS-201: The Legislative Process

Examination of institutions, government agencies, and public's action as related to legislative law-making and operations.
Credits: 3

POLS-202: Approaches to the Study of Public Law

Analysis of constitutional law derived from examination of Supreme Court decisions
Credits: 3

POLS-203: State and Local Government and Politics

Analysis of legal and political aspects of government institutions, politics, and functions in subnational political arenas
Credits: 3

POLS-204: Approaches to Comparative Politics

A graduate seminar that reviews the traditional and contemporary literature in comparative politics, focusing on macro level analysis. Themes examined include: social.

Credits: 3

POLS-206: Administration of the National Government

Overall organization and structure of the administrative departments and independent agencies of national government.
Credits: 3

POLS-207: Selected Problems of Comparative Politics

Selected problems of foreign governments and politics, with an emphasis on comparative political institutions.
Credits: 3

POLS-208: Problems of World Organizations

An examination of the organization, structure, and problems of the League of Nations, the United Nations, NATO, etc.
Credits: 3

POLS-210: Selected Problems of Contemporary International Politics

Selected problems of current world affairs.
Credits: 3

POLS-212: American Political Parties and Politics

Intensive analysis of selected problems in American politics and political parties.
Credits: 3

POLS-213: American Foreign Policy-Making Process

Examination of the legal, behavioral, and political pressures that influence the making of American foreign policy.
Credits: 3

POLS-214: Public Opinion and Propaganda

Analysis of public opinion and the psychological factors involved in the development of political attitudes of citizens and officials.
Credits: 3

POLS-217: Methods of Political Science

Examination of the fundamentals of research design, measurement, data collection, and data analysis. It is the prerequisite for the higher-level courses including Behavioral Research Methods, Survey Research Methods, and Multivariate Data Analysis.
Credits: 3

POLS-218: Public Policy Formulation

Seminar introduces students to the policy making process. Emphasis is on the policy process —from the mobilization of support for policy change to the formulation of policy objectives, targets, and instruments as well as the assessment of policy outcomes.
Credits: 3

POLS-219: Presidential Policy-Making

Study of institutional mechanisms and processes of policy formulation at the presidential level.
Credits: 3

POLS-220: Intergovernmental Relations in the United States

Study of issues and problems involved in the relationships among national, state, and local governments.
Credits: 3

POLS-222: Caribbean Politics and Political Economy

A graduate seminar that addresses the domestic and international complexities of contemporary politics in the Caribbean.
Credits: 3

POLS-225: Pressure Groups

Analysis of the purposes, techniques, history and influence of pressure groups in American government.
Credits: 3

POLS-226: World Imperialism/Globalization

Comparative examination of historical and contemporary forms of imperialism, with emphasis placed on such institutions of imperial control as the state and transnational corporations.
Credits: 3

POLS-227: Introduction to Black Politics

Concepts and theory for each area of study, together with its relevant literature, within the framework of behavioral or topical approaches to the presentation of the literature.
Credits: 3

POLS-228: Non-Traditional Approaches to World Politics

This course focuses on the contemporary ;foreign policy of the United States of America. There are a number of ways to study foreign policy - theoretical, practical, historical, and ideological are but a few of the most popular methods. This course utilizes a synthesis of differing approaches. This course provides students with highly advanced knowledge of the key concepts, history, themes, and contemporary issues in contemporary US Foreign Policy. This course will familiarize students with theoretical explanations of US foreign policy, historical and contemporary American thinking on international affairs, the structure of foreign policymaking in Washington DC, as well as some of the major challenges facing contemporary American policymakers.
Credits: 3

POLS-229: Urban Government and Politics

Analysis of urban government and political systems in metropolitan areas and neighborhood centers.
Credits: 3

POLS-230: American Political Thought

An examination of the documents and writings of American political theorists and practitioners from colonial to contemporary times.
Credits: 3

POLS-231: Program Evaluation

Study of the basic methods used to evaluate programs and policies, including an examination of the impact that selected policies have had on intended target populations.
Credits: 3

POLS-232: Nature and Uses of Political Theory

Review of the categories of the field and the basic questions of epistemology and social analysis.
Credits: 3

POLS-233: Pan-Africanism

Analysis of the origins of Pan-Africanism within the framework of the interactions between it and the political, economic, and cultural forces which produce it.
Credits: 3

POLS-234: Black Ideology

Study of the major political ideologies and analysis of their formation, content, and impact on the process of types of Black political activity.
Credits: 3

POLS-236: Black Leadership, Organizations, and Movements

A study of the anatomy of Black movements with particular attention to the leadership and organizational goals, strategies, and results.
Credits: 3

POLS-241: Sem International Dev Pol

This course is an introduction to the field of global politics, also known as international relations. It focuses on a variety of interconnected topics, including the development of the nation-state system and political interactions among countries over issues of war and peace, human rights, and economic and environmental policies.
Credits: 3

POLS-243: Political Economy of Advanced Capitalism

An in-depth examination of the strategic role played by the U.S., E.U., and other economic powers in leading the capitalist development, the role of the state, and the internationalization of capital and labor.
Credits: 3

POLS-244: Seminar in Political Economy

An in-depth examination of advanced topics including crisis theories, industrial restructuring, state monopoly capitalism, role of research and development in technological and scientific evolutions, etc.
Credits: 3

POLS-245: Seminar in International Development Policies

Two related themes run through the material to be covered in this course: the relationship between politics and economic development and the dynamics of political development. After a critical assessment of the discourse and history of development, we will discuss topics such as the role of the state in the economy, strong versus weak and failed states and state-building efforts, the effect of political institutions and legal frameworks in determining policy choices and driving economic growth, the relationship between democracy and development, dynamics of democratic transitions and democracy promotion, the civil society, political accountability, transparency, and the anti-corruption agenda, and the debates around good governance.
Credits: 3

POLS-246: Seminar in Science and Technology Policy

Examination of the public policy issues that have deep connections to science and technology and its expertise. It examines environmental, energy, and economic policy in the United States and their local, state, national and global implications. Topics covered may include air and water policy, energy production and regulation, STEM education and labor markets, trade, innovation, intellectual property, federal research & development.
Credits: 3

POLS-249: Comparative Perspectives in International Security

This course seeks to establish basic foundations of the use of force by States, legal and moral restrictions on its application and the fundamental foundations of strategic policy. It will examine how states have responded to their security challenges over the centuries as technology has transformed the strategic landscape by examining a series of State security case studies.
Credits: 3

POLS-250: Social Justice Policy

This seminar course focuses on western approaches to rendering social justice in New World nations forged by colonization of indigenous, slave, and immigrant population by settler populations. Particular attention is given to both processes and policies that abrogate and restore full citizenship rights and benefits.
Credits: 3

POLS-252: Social Movements

A seminar on classic and contemporary literature on the origins and outcomes of social movements.
Credits: 3

POLS-253: Black Political Theory and Behavior

An introduction to the major theoretical frameworks in Black politics and their application to substantive problems of political behavior.
Credits: 3

POLS-254: Behavioral Research Methods

Presentation of the fundamentals of experimental surveys of aggregate and mixed data type designs.
Credits: 3

POLS-255: Political Revolutions

A seminar on classic and contemporary literature on the origins and outcomes of political revolutions.
Credits: 3

POLS-257: Multivariate Data Analysis

Analysis of the General Linear Model in social science research: statistical theory and the matrix approach in multivariate data analysis
Credits: 3

POLS-259: International Law

This course is intended to introduce students to the basic concepts and problems of public international law and of the international legal system. It will also address newer themes in international law such as the international law of human rights and international criminal law.
Credits: 3

POLS-260: Electoral Politics

Analysis of Black activities in electoral politics, voting trends, party allegiance, and other important factors.
Credits: 3

POLS-263: Seminar in Black Politics I

Advanced seminar in Black Politics.
Credits: 3

POLS-264: Problems in International Security

This course is a deep dive on pressing international security problems, as well as frozen conflicts and developing security issues. It is intended as a capstone to the ISS major and will feature a written research project.
Credits: 3

POLS-267: Political Leadership in Africa

A study of the role of political leadership in the development of African nations, with special reference to the influence of major personalities.

Credits: 3

POLS-268: Seminar in Black Politics II

A continuation of POLS-263. Advanced seminar in Black Politics.
Credits: 3

POLS-269: Contemporary Issues in African Politics

Seminar on selected problems in African politics, nationalism, integration, military politics, liberation movements, and ideologies.
Credits: 3

POLS-270: Middle East in the World System

This course examines the history, national interests, policy objectives, and outcomes of US engagement in the Middle East from World War I to the present. The course examines the international environment, regional issues, and the policies and tools used to protect and advance US national interests. Episodes of US intervention are examined, as are current issues and challenges for US foreign policy in the region.
Credits: 3

POLS-271: Government and Politics of Southern Africa

Problems in Southern Africa.
Credits: 3

POLS-273: Africa in World Politics

Study of Africa's role in the international political system and its relations to the major powers and developing nations.
Credits: 3

POLS-274: Government and Politics of Southern Africa

An exploration Southern African political activity, with emphasis on the regional political economy including the Southern African Development Economic Community (SADEC) as a regional economic community.
Credits: 3

POLS-279: Survey Research Methods

Students collectively design, implement, and analyze a major survey.
Credits: 3

POLS-284: Third World Political Theory

Examination of the contribution of third world theorists and leaders to the development of political theory. Topics include dependency theory, nonalignment, and alternative political and economic models
Credits: 3

POLS-287: Theories of International Relations

Study of the various theoretical formulations involved in the examination of the behavior of the international political system.
Credits: 3

POLS-289: Government and Politics of the People's Republic of China

In-depth examination of the government institutions, political dynamics, and international relations of the Peoples Republic of China.
Credits: 3

POLS-290: Administrative Law and Regulatory Policy

Examination of institutions, government agencies, and public actions as related to the quasi-judicial policy-

making operations of the executive branch
Credits: 3

POLS-292: Seminar in American Politics

Examination of components of the American political system, including the constitutions, structures, and political institutions of national and sub-national governments
Credits: 3

POLS-293: The Judicial Process

Examination of the legal and political factors that influence the rule- adjudication process in the federal system.
Credits: 3

POLS-294: Selected Topics in American Government

Analysis of research, concepts, theories, and literature of major topics in American government. See page 577 for additional information related to Special Topics courses.
Credits: 3

POLS-297: Special Topics in Political Theory

Special topics of importance within political theory. See page 577 for additional information related to Special Topics courses.
Credits: 3

POLS-299: Current Problems in Public Policy

Seminar focuses on specific policy sector issues, e.g., transportation, social welfare, education, security, environment, urbanization, etc. Emphasis is on the acquisition of analytical skills, evaluation of policy instruments and their administration and management.
Credits: 3

POLS-301: Independent Study: American Government

This course allows students to select a political science faculty member or a faculty member in another academic unit at Howard University to work with on an agreed upon creative or scholar independent research project that furthers the student's interest in the area of American government. The purpose of independent study research is also to support the thesis development and/or the student's future creative career goals.
Credits: 3
Prerequisites:

nine hours of graduate course credit completed in the field, plus permission of the instructor, Director of Graduate Studies, and Chair of Department.

POLS-302: Independent Study: Public Policy

This course allows students to select a political science faculty member or a faculty member in another academic unit at Howard University to work with on an agreed upon creative or scholar independent research project that furthers the student's interest in the area of public policy. The purpose of independent study research is also to support the thesis development and/or the student's future creative career goals.
Credits: 3

Prerequisites:

nine hours of graduate course credit completed in the field, plus permission of the instructor, Director of Graduate Studies, and Chair of Department.

POLS-303: Independent Study: Comparative Politics

This course allows students to select a political science faculty member or a faculty member in another academic unit at Howard University to work with on an agreed upon creative or scholar independent research project that furthers the student's interest in the area of comparative politics. The purpose of independent study research is also to support the thesis development and/or the student's future creative career

goals..Open to students who have completed POLS-204 and two other Comparative Politics courses. Permission of instructor, Director of Graduate Studies, and Chair is required

Credits: 3

POLS-304: Independent Study: International Relations

This course allows students to select a political science faculty member or a faculty member in another academic unit at Howard University to work with on an agreed upon creative or scholar independent research project that furthers the student's interest in the area of internationla relations. The purpose of independent study research is also to support the thesis development and/or the student's future creative career goals..Open to students who have completed POLS-287 and two other International Relations courses. Permission of instructor, Director of Graduate Studies, and Chair is required.

Credits: 3

POLS-306: Independent Study: Methodology

This course allows students to select a political science faculty member or a faculty member in another academic unit at Howard University to work with on an agreed upon creative or scholar independent research project that furthers the student's interest in the area of research methods. The purpose of independent study research is also to support the thesis development and/or the student's future creative career goals.Open to Master of Arts students after completion of two required research tools. Open to Doctor of Philosophy students after completion of three required research tools. POLS-306 cannot be substituted for research tool requirements.

Credits: 3

POLS-307: Independent Study: Black Politics

This course allows students to select a political science faculty member or a faculty member in another academic unit at Howard University to work with on an agreed upon creative or scholar independent research project that furthers the student's interest in the area ofBlack politics. The purpose of independent study research is also to support the thesis development and/or the student's future creative career goals.Open to students who have completed nine credits in Black Politics.

Credits: 3

Prerequisites:

Permission of instructor, Director of Graduate Studies, and Chair is required

POLS-308: Directed Research MA Thesis

This course can be used by master's students to meet their course registration requirements and also conduct some preliminary work on their master's research projects.

Credits: 6

POLS-350: Advanced Research and Survey Design

Preparation for either comprehensive examinations and/or preparation of a dissertation thesis proposal, prior to being admitted to candidacy for the Doctor of Philosophy degree .

Credits: 1

POLS-351: Advanced Research and Survey Design

Preparation for either comprehensive examinations and/or preparation of a dissertation thesis proposal, prior to being admitted to candidacy for the Doctor of Philosophy degree

Credits: 3

POLS-352: Advanced Research and Survey Design

Preparation for either comprehensive examinations and/or preparation of a dissertation thesis proposal, prior to being admitted to candidacy for the Doctor of Philosophy degree

Credits: 4

POLS-353: Advanced Research and Survey Design

Preparation for either comprehensive examinations and/or preparation of a dissertation thesis proposal, prior to being admitted to candidacy for the Doctor of Philosophy degree

Credits: 6

POLS-354: Advanced Research and Survey Design

Preparation for either comprehensive examinations and/or preparation of a dissertation thesis proposal, prior to being admitted to candidacy for the Doctor of Philosophy degree
Credits: 9

POLS-398: Doctoral Seminar

offered by the Director of Graduate Studies before being admitted into candidacy. One of the twelve credits applied to the doctoral dissertation is earned for successful completion of the Doctoral Seminar.
Credits: 1

POLS-399: Directed Research PhD Dissertation

The purpose of this course is for the design and performance of research leading to a Ph.D. See note on page 577 related to dissertation hours.
Credits: 11

POLS-400: Race and Ethnicity in the Americas

An examination of the political and historical context of Black and indigenous movements, policies, politics, and state actions in the Americas.
Credits: 3

POLS-401: Racism in Europe

An examination of the movements, policies, politics, and state actions regarding people of African descent, the Roma, and the Muslim community in contemporary Europe.
Credits: 3

Portfolio Development & Review

INTG-198: Environmental Factors and Spatial Analysis of Interiors

The course involves the study of human needs and activities as a design determinant. With emphasis placed on biological, ecological, psychological, and cultural aspects of validity, research, programming, and design planning.
Credits: 3

INTG-200: Drafting Interior Design Communication

Instruction in graphic communication techniques required for professional communication of ideas and information related to interior design practice. Including one and two-point perspectives. Exposure to the proper use of equipment and materials to read interior and architectural drawings.
Credits: 3

INTG-202: History of Interiors & Architecture

This survey course examines the interiors and architecture from the African diaspora, ancient to the present. Areas of study include the political, social, economic, religious, and technological context of the periods regarding the historical development of built environments, interiors, furniture, textiles, and accessories.
Credits: 3

INTG-203: Contemporary Interiors and Furnishings

Survey course from 1900 to present-day of the history of art and interior design, design movements, styles, furniture, textiles and accessories, and their relationship to interiors, Victorian to present.
Credits: 3

INTG-204: Construction & Codes of Interior Spaces

Instruction in the interior and architectural building codes, universal, accessible, and visit-ability, construction means, and methods required for built environments. Instruction in research and application of international and jurisdictional building code requirements and identification of appropriate construction methods.
Credits: 3

INTG-205: Construction and Fabrication Studio

Studio course studies the construction documentation process iterative steps through the production of working drawings, models, schedules, and drawings to the final fabrication and construction phase—an exploration of innovative technologies in design documentation and fabrication, using modeling software and digital fabrication techniques.
Credits: 3

INTG-206: CAD I

The course introduces design software programs for interior design practice, instruction on program commands, design techniques, and methods to produce professional presentations. Emphasis placed on technical issues and investigation of new creative uses for the software.
Credits: 3

INTG-207: CAD II

An intermediate course to introductory CAD I course. Instruction includes 2-D and 3-D features, rhino, and virtualreality -VR and advanced drafting skills of interior perspectives and axonometric drawings to complete construction documents and professional presentations.
Credits: 3

INTG-209: Materials & Interior Specifications

Coursework includes an intensive examination of materials and finishes used in residential and commercial interiors. Course activities include estimating, fabrication, and installation, identifying materials, composition, use, appropriateness, manufacturers, and sources.
Credits: 3

INTG-210: Presentation & Rendering Techniques

The course involves various presentation techniques for interior design projects, including digital, graphics, and color rendering techniques to effectively communicate ideas in a presentation format that clients can understand and evaluate.
Credits: 3

INTG-211: Graduate Interior Design I, Residential Design Studio

This course provides advanced study in the application of principles, philosophies, materials, and production of residential interior design.
Credits: 3

INTG-214: Interior Design Professional Practice

The course develops foundational business and professional practices of interior design. The course explores compensation and fees, contracts, business forms, budget management, designer/client and trade relationships, and legal considerations to operate an interior design business effectively.
Credits: 3

INTG-215: Interior Design Theory and Criticism

The course examines theoretical frameworks conceptualizing Interior Design's multi-dimensional field, including topics in social sciences, design history, taste, sustainability, and ethical design.

Credits: 3

INTG-216: Graduate Interior Design III, Advanced Problems in Lighting

A studio exploration of lighting in interior environments introduces the fundamental principles of color as it applies to the spatial and visual perception of the built environment, the psychology of color, its impact on human behavior, and interior spaces.
Credits: 3

INTG-217: Innovation and Inquiry

The course emphasizes critical thinking and creative problem-solving skills. Practice critical, creative, and innovative inquiry during experimentation in problem-solving methodologies, including inductive and deductive reasoning, divergent thinking, systems thinking, lateral thinking, and design thinking.
Credits: 3

INTG-218: Graduate Interior Design IV, Commercial

The course is an advanced study in the application of ideation, principles, philosophies, and materials in commercial interior design.
Credits: 3

INTG-225: Portfolio Development & Review Studio

Critique review of a student's portfolio of work by the instructor(s). The student must complete an entire body of work product that demonstrates their studio progress—team teaching of all ID faculty.
Credits: 3

INTG-269: Practicum in Interior Design / Internship

The course includes field application and observation of business practices in an interior design establishment in the Washington, D.C. area, without compensation. Students complete a minimum of 100 hours of experiential learning to gain hands-on experience in the interior design profession—internship approved by the instructor. Weekly field documentation and evaluation are required.
Credits: 3

Post Master's Certificate Program

NUCP-503: Family Primary Care of Older Adults: Theory & Practicum

This course addresses strategies for the non-pharmacologic management of challenging behaviors of older adults with dementia. The course is designed for advanced practice registered nurses/students, and members of the healthcare team with an interest in the care of older adults. NURS-605 course requires a case study of a client with dementia and behavioral problems.
Credits: 5

NUCP-506: Family Primary Care of Children: Theory & Practicum

This course focuses on applying nursing principles in promotion, maintenance and restoration of health for infants, children and their families. Health issues and nursing concerns of children will be studied with emphasis on developmental stages, family processes, health promotion practices, and social, cultural and spiritual influences.
Credits: 4

NUCP-507: Family Primary Care of Women: Theory & Practicum

This course focuses on the promotion, maintenance, and restoration of health for women during the childbearing years, their newborns, and their families. Through the use of a multi-sectoral approach, and with an emphasis on equitable distribution and appropriate technology, it relates physiological, environmental, cultural, and behavioral factors and issues that impact on the reproductive woman and childbearing.

Credits: 4

NUCP-603: Primary Nurse Practitioner Role Seminar & Practicum

A primary care nurse practitioner will assess a patient's health, administer preventive care, and help to treat and manage general conditions. They will refer patients to a specialist if a more serious condition is discovered.
Credits: 5

Postgraduate Dental Program

PGDP-203: Physical Diagnosis

The primary goal of the course is to train you to conduct a thorough, accurate medical history and physical examination. You will be given an approach to acquiring clinical information, organizing and processing this information, and then presenting it in a clear concise manner. In the process we want to help you integrate your growing knowledge of pathology while learning to apply this to clinical observation and problem solving. We also will help you develop good communication skills, professionalism, cultural competence, and the habit of reflection - all essential attributes of the good physician. These skills and attributes form the basis for your professional growth in the years ahead, no matter what path in medicine you eventually choose.
Credits: 3

PGDP-600: General Dentistry Clinic

Advanced General Dentistry is a post-doctoral clinic that offers comprehensive dental care, including routine cleanings and exams, fillings, crowns, bridges, implant restorations, dentures, and treatment of more complex general dentistry cases. In this clinic, dentists who have completed dental school and are receiving 1-2 additional years of training in advanced general dentistry provide treatment under the supervision of faculty dentists. Fees at the Advanced General Dentistry Clinic are slightly higher than at the Pre-Doctoral Clinics, though they are still lower than the fees charged by dentists in private practice.
Credits: 0

PGDP-601: General Dentistry Clinic

A continuation of PGDP-600. Advanced General Dentistry is a post-doctoral clinic that offers comprehensive dental care, including routine cleanings and exams, fillings, crowns, bridges, implant restorations, dentures, and treatment of more complex general dentistry cases. In this clinic, dentists who have completed dental school and are receiving 1-2 additional years of training in advanced general dentistry provide treatment under the supervision of faculty dentists. Fees at the Advanced General Dentistry Clinic are slightly higher than at the Pre-Doctoral Clinics, though they are still lower than the fees charged by dentists in private practice.
Credits: 8

PGDP-604: General Dentistry Conference

The goal of this course is to provide the second-year resident an opportunity to explore a broad range of topics related to general dentistry. Advanced literature review is expected of the second-year resident to focus on clinical care as well as practice management, information technology, ethics, advanced treatment modalities and community service. Second year residents are also expected to lead group discussions with first year residents on general dentistry topics.
Credits: 0

PGDP-610: Head and Neck Anatomy and Anthropology

This course is designed to afford the dental student with a comprehensive review of the anatomy of the head and neck as it relates to dental surgical procedures. The course is designed to present an intensive orderly approach to cranial anatomy with special reference to those regions which provide a background for the various aspects of practical dentistry. Further, the course is designed as a review and as an advanced presentation, with the presumption that the students have some knowledge of basic anatomy and physiology along with related terminology. During the course and review sessions visual aids of laboratory dissections of the various spaces and compartments of the head and neck will be presented and will be available to the students for individual study.

Credits: 2

PGDP-614: Histopathology

Histology is a discipline which examines the structure and correlating functions of tissues and cells using light microscopy, electron microscopy and other specialized microscopic methods. The course will involve a study of general tissue characteristics and will explore histologically and ultrastructurally the different tissue types in the body including epithelial, connective, skeletal, blood/vascular, muscular, and neurological tissues as well as the various organ systems including cardiovascular, lymphatic, integumentary (skin), digestive, respiratory, urinary, endocrine, male and female reproductive, and special senses (eye and ear). While the course's emphasis will be a study of the appearance of normal cells and tissues, selected abnormal/diseased tissues will be examined as well (e.g., bone osteoporosis, heart myocardial infarctions, neurological diseases, etc.) and functional correlations will be made.

Credits: 2

PGDP-618: Orthodontic Laboratory

A technical course designed to give the students an orientation in the use and manipulation of wires and other materials for preparation and construction of removable and fixed orthodontic appliances.

Credits: 8.5

PGDP-619: Orthodontic Theory I

Information presented in this course is designed to present and discuss how to obtain medical and dental histories and deliberate on specific medical and dental conditions that have explicit relevance to the practice of orthodontics, illustrate how to perform intra and extra oral examinations, familiarize the student with the various growth patterns and discuss the interrelationship of growth and orthodontic treatment, review the orthodontic record taking procedures and present how to utilize the obtained information to formulate an individualized treatment plan, discuss the various classifications of malocclusion, present the key requirements of an optimal occlusion including Andrew's six keys to normal occlusion, address the etiologies of malocclusion and understand the role of muscle pressure and oral habits on development of a malocclusion ,present the theories of tooth movement as well as types of orthodontic tooth movement, discuss the concept of anchorage and discuss the mechanical principals of force control .

Credits: 3

PGDP-620: Orthodontic Theory II

Information presented in this course is designed to familiarize the students with various early systems of orthodontic treatment philosophy and the contemporary orthodontic treatment concepts. The course is designed to fully analyze the Standard edgewise and straight wire systems of mechanotherapy and to provide a basic understanding of the three stages of comprehensive orthodontic treatment including leveling and alignment, working, finishing, as well as retention procedures. This course will help students with understanding of the advantages and disadvantages of the standard edgewise and straight wire mechanotherapy as well as differences between 018 and 020 bracket systems.

Credits: 2

PGDP-621: Orthodontic Theory III

Information presented in this course is designed to present several basic orthodontic concepts and philosophies of treatment such as Bio-progressive therapy and the Mulligan technique, as well as common techniques for intra oral distalization of the upper first molars to correct a class II dental malocclusion, and the concept of functional appliance therapy. In addition, the vertical dimension control of the developing face as well as the management of the growing craniofacial complex under the influence of orthodontic and orthopedic forces will be discussed. The course will end with an introduction to the treatment complexities of adult and surgical orthodontics.

Credits: 2

PGDP-622: Hospital-Clinical Oral / Maxillofacial Surgery

It is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery.

Credits: 8.5

PGDP-624: Orthodontic Clinic

This course has been designed to provide the students with knowledge and understanding of the philosophy and mechanics of fixed appliances. The course is designed to give the students exposure to orthodontic problems with as diverse types of malocclusions as our clinic population will permit. The basic laboratory and didactic course material are correlated and demonstrated through the treatment of patients. Diagnosis and treatment planning, record keeping, appliance construction and manipulation, patient management and interpersonal relationships are stressed and practiced under supervision. A multidisciplinary approach to orthodontic mechanotherapy is presented. While predominantly straight-wire appliances, the student is also exposed to standard edgewise, bio progressive, functional and other aligning appliances, and cases involving orthognathic surgery.

Credits: 6.5

PGDP-626: Anesthesiology

This course introduces the nurse anesthesia student to concepts that are necessary to formulate a plan and implement a safe and individualized anesthetic in the perioperative setting. The focus of the course includes: preparation of the anesthetizing environment; patient assessment; physiologic monitoring; anesthetic techniques; prevention of complications; utilization of anesthesia equipment; pharmacologic agents; fluid and electrolyte monitoring; communication and documentation; formulation of an anesthesia care plan and evaluation.

Credits: 3

PGDP-628: Roentgenology and Cephalometrics

This course will include a review of the basic radiologic principles and factors influencing the production of quality roentgenographs. The development of the use of roentgenographic cephalometrics will be studied. Use of roentgenographic cephalometrics in orthodontics will be discussed with emphasis on the location of hard and soft tissue landmarks. Special emphasis will be placed on the tracing of these landmarks accompanied by the definition, construction and location of the various planes, angles and linear measurements utilized in compiling a statistical analysis of the headplate

Credits: 3

PGDP-629: Advanced Cephalometrics

Students will be able to define points, planes, angular and linear measurements for the analyses covered. Perform the measurements for each of the analyses and make appropriate interpretations from them. Have a detailed understanding of the following analyses: Steiner, Ricketts, McNamara, Tweed, Wits, Brodie, Sassouni, Holdaway, and CVM. Be able to use the aforementioned analyses to aid in treatment planning. Have a working knowledge of the following analyses: Ricketts' PA, Golden Section, Downs, Peck & Peck, Reidel, Milton Neger, Wylie and Andrew's. Understand the basic principles of orthognathic surgery. Be able to apply cephalometrics to surgical treatment planning.

Credits: 2

PGDP-630: Adv. Oral & Maxillofacial Surgery Lecture

Students will learn to conduct oral screenings and evaluate patients with dental problems including toothache, oral pathology, dentofacial deformities, temporomandibular joint pathology, and preprosthetic problems. They will learn how to give intraoral injections, perform intraoral biopsies, extract simple teeth and assist with more major surgical procedures.

Credits: 1

PGDP-631: OMS Problem Case Seminar

This course includes a review of surgical cases, treatment outcomes and discussions on diagnosis and treatment planning. Additionally, there is a detailed review on selected medical or surgical topics.

Credits: 0

PGDP-635: Functional Anatomy

Students will be able to relate the connective tissue (ligaments, tendons, cartilage, bone,) muscles, and nerves (12 cranial nerves) of the craniofacial complex to the functions of respiration, mastication (includes swallowing,) and posture; and how these functions affect growth, development, and function of the stomatognathic system. Relate stress and malfunction in the stomatognathic system to muscle spasm, and pain that may occur in the muscles of the jaw, neck, shoulders, and back and may lead if chronic to degenerative processes of the temporomandibular joint. It is the intent of this course to evaluate the preventive, interceptive, and corrective role that orthodontics can play in developing and/or maintaining a harmonious physiological state.

Credits: 1

PGDP-637: Advanced Radio. Interpret & Diagnosis

Provides an in-depth understanding of normal and abnormal anatomy and how to use different forms of imaging technology.

Credits: 1

PGDP-640: Pediatric Dentistry Clinic/Hospital

This course is designed to give the postdoctoral resident a broad base of information concerning the specialty of pediatric dentistry in a way that will result in their ability to confidently practice as a specialist in pediatric dentistry. It is designed to integrate fundamentals of pediatric dentistry with clinical techniques and to allow the resident to theorize and apply those fundamentals through critical thinking. This course will also incorporate elements of evidence-based dentistry as it relates to the pediatric, adolescent, and special needs population. The clinical experience will enhance the residents' ability to assess the pediatric patient's behavior and assess the need for behavior modification techniques. For the patient who needs sedation, the resident will be able to assess and monitor the patient before, during and after the sedation appointment. The resident will also incorporate the critical thinking skills to assess those pediatric patients who must be treated in the operating room. The residents will to able to assess, workup, complete and follow up the pediatric patients treated in the operating room. The clinic will also provide the resident with experience in the teaching of the pre-doctoral students in the treatment of children with special needs.

Credits: 7

PGDP-642: Pediatric Dentistry Seminar

This course is designed to give the postgraduate student in pediatric dentistry a sound understanding and knowledge of theory and philosophy of dental treatment for children while integrating all acquired knowledge in related basic sciences and other clinical disciplines. At the completion of the course, the student should be able to have a firm understanding of pediatric dentistry concepts, patient management, child development, basic concepts of restorative procedures, cariology, pulp management in primary and permanent teeth, space management and interceptive orthodontics, nutrition and habit correction. Moreover, through a wide exposure to current and most pertinent literature and research the student will be acquainted with various philosophies and opinions in the field of Pediatric Dentistry.

Credits: 0

PGDP-643: Pediatric Dentistry Literature Review

This course is designed to review the current and most pertinent literature in pediatric dentistry and the related areas of clinical dentistry and dental research. The students are expected to actively participate in each seminar, develop the ability to critically review each article/oral health policy studied, and relate the knowledge gained to their clinical experience

Credits: 2

PGDP-645: Pediatric Laboratory

This course is designed to acquaint the student with current advanced technical procedures used in Pediatric Dentistry. Experience is provided in restorative procedures, endodontic techniques, wire bending, soldering and welding methods, band construction and placement of attachments. Emphasis is placed on construction of preventive and interceptive orthodontic appliances. Impression taking, pouring, trimming and finishing of study models is reviewed. Correlation of technical procedures with clinical application is stressed. Lectures, demonstrations, and visual aid materials are used.

Credits: 4

PGDP-650: Growth and Development I

This course is designed as a review of human growth and development. Prenatal and postnatal changes, development and methods of measuring the normal and abnormal changes are presented. Emphasis is placed on the growth and development of the head, face, jaws, skeleton and dentition. Methods of estimating physiologic age are presented. Clinical implications and ramifications as well as the abnormal development possibilities will be addressed. Developmental stages emotional development and psychological development and patient management will also be presented. Each resident will make a presentation on assigned topics under the guidance of the course director. It is requested that audio-visual aids, etc., be used in the presentation. The presenter will be required to have a detailed type written copy of his/her presentation.

Credits: 2

PGDP-651: Growth and Development

This course is designed as a review of human growth and development. Post-natal changes, development and methods of measuring and predicting growth are presented. Emphasis is placed on the growth and development of the head, face, jaws, skeleton and dentition. Case based learning is applied by having the residents present and perform two growth prediction on actual patients. Clinical implications and ramifications as well as the treatment is addressed before performing growth predictions and compared to treatment plans after a growth prediction is done.

Credits: 2

PGDP-655: Principles of Epidemiology and Design

This course is designed to introduce students in all fields of public health to the background, basic principles and methods of public health epidemiology. We will also discuss the biological, behavioral, sociocultural and environmental factors associated with the etiology and distribution of health and disease.

Credits: 1

PGDP-656: Methodology in Research I

The aim of this course is to develop students' knowledge and understanding of the role and conduct of quantitative and qualitative research methods in planning [and urban design]. Intellectual and methodological debates will be discussed in order to assist students to develop informed opinions and a critical appreciation for other's research. The imperative for ethical research practice will be presented. The course equips students with the skills to review and conduct methodologically sound research as a part of their professional work.
Credits: 5

PGDP-657: Methodology in Research II

2nd year residents present their hurdles in completing their research projects while their colleagues make suggestion for addressing these challenges in the Fall. In the Spring, the course enforces the statistical approaches that can be applied to individual research projects, reviews elements to include in thesis discussion section, and finalized formatting guidelines for thesis submission.
Credits: 5

PGDP-703: Pediatrics

This rotation provides exposure to obtaining complete medical histories, parental interviews, system-oriented physical examinations, clinical assessments of healthy and ill patients, selection of laboratory tests and evaluation of data evaluation of physical, motor and sensory development, genetic implications of childhood diseases, the use of drug therapy in the management of diseases, and parental management through discussions and explanation.
Credits: 1

PGDP-720: Orthodontic Case Analysis Seminar

This course will consist of one semester of 48 one-hour seminars designed to integrate all the basic knowledge of orthodontics learned, bringing together the different elements of "facts", experience and reading, controversies in the field are discussed from every aspect. The student is afforded a platform from which he/she can express opinions and dispel errors of judgment in a dialogue with classmates and the instructor.
Credits: 2

PGDP-721: Orthodontic Case Analysis Seminar

This course will consist of one semester of 48 one-hour seminars designed to integrate all the basic knowledge of orthodontics learned, bringing together the different elements of "facts", experience and reading, controversies in the field are discussed from every aspect. The student is afforded a platform from which he/she can express opinions and dispel errors of judgment in a dialogue with classmates and the instructor. See note on page 577 related to courses with a range of credit hours. *Note: One to four credit hours may be awarded per semester for the Orthodontic Case Analysis Seminar course. A maximum of four credit hours may be awarded for the course.
Credits: 1-4

PGDP-722: Hospital-Clinical Oral / Maxillofacial Surgery

This course is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.
Credits: 9

PGDP-724: Orthodontic Practice Organization

This course is designed to provide information about "real world" experiences and practical solutions to some of the challenges faced by recent orthodontic graduates. To acquaint students with the start- up and administration of an orthodontic practice; Topics may include but are not limited to financial planning, financing, employment contracts, ethics, insurance, accounting and patient management. To familiarize students with the delivery of orthodontic services in various settings (solo practice, partnerships, corporate, etc.)
Credits: 0

PGDP-725: Pediatric Dentistry Seminar

The purpose of this seminar is to aid the Resident in understanding, integrating and correlating his/her knowledge that has been presented to him/her in the orthodontic and pediatric dentistry programs. Each resident will make a presentation on assigned topics under the guidance of a faculty advisor.
Credits: 2

PGDP-726: Theoretical Mechanics

The course is designed to give the first-year postgraduate orthodontic student a basic knowledge of the force vector analysis and the principles of mechanics as they apply to orthodontic force systems in a two-tooth model. The course also gives the student an understanding of how more complex force systems operate and how to apply basic principles to multitooth and full-arch systems. Furthermore, the course provides the student with an insight into how the oral environment and biology affects the theoretical force calculations.
Credits: 2

PGDP-727: Research Seminar I

The main goals of research seminar are to acquaint students with the basic concepts and methods of statistics, their applications, and their interpretations as used in dental health research. Students will learn quantitative research terminology and its meaning, how to calculate various statical measures and indices, and how to compute and interpret inferential statistical techniques. Students will also acquire the ability to utilize the statistical software package SPSS as tools to facilitate the processing, editing, storing, displaying, analysis, and interpretation of dental health research-related data. This course covers several content areas related to quantitative data analysis. These areas include (a) quantitative research terminology, (b) SPSS & data preparation for entry in SPSS, (c) Descriptive statistics: Frequency distributions, graphical presentation of data, and measures of central tendency and variability, (d) Normal and skewed distributions, (e) Identify steps in hypothesis testing: Research hypotheses, Type I- & Type II-errors, & statistical significance, (f) Inferential statistics: Parametric vs. non-parametric tests, (g) Guidelines for test selection, (h) Bivariate statistical techniques: Pearson's correlation coefficient, Student's t-tests, One-way analysis of variance and covariance (ANOVA / ANCOVA), and Chi-square tests, and (i) Presentation, interpretation, and reporting of findings.
Credits: 2

PGDP-730: Clinical TMD

This course is designed to provide the resident with the knowledge necessary to recognize, diagnose and treat, orthodontic patients that exhibit minor to moderate temporomandibular disorders. Guest lecturers will present information in the form of seminars. The primary objective of the TMD seminars will be to introduce concepts and procedures that will reduce patient symptoms by alleviating compressive forces on the temporomandibular joint and muscles of mastication.
Credits: 1

PGDP-731: OMS Problem Case Seminar

Emphasis is on the dental management of patients with complex medical problem.
Credits: 2.5

PGDP-733: Orthodontic Clinic

This course has been designed to provide the students with knowledge and understanding of the philosophy and mechanics of fixed appliances. The course is designed to give the students exposure to orthodontic problems with as diverse types of malocclusions as our clinic population will permit. The basic laboratory and didactic course material are correlated and demonstrated through the treatment of patients. Diagnosis and treatment planning, record keeping, appliance construction and manipulation, patient management and interpersonal relationships are stressed and practiced under supervision. A multidisciplinary approach to orthodontic mechanotherapy is presented. While predominantly straight-wire appliances, the student is also exposed to standard edgewise, bio progressive, functional, and other aligning appliances, and cases involving orthognathic surgery.
Credits: 7

PGDP-734: Orthodontic Clinic (Advisory Course)

This course has been designed to provide the students with knowledge and understanding of the philosophy and mechanics of fixed appliances. The course is designed to give the students exposure to orthodontic problems with as diverse types of malocclusions as our clinic population will permit. The basic laboratory and didactic course material are correlated and demonstrated through the treatment of patients. Diagnosis and treatment planning, record keeping, appliance construction and manipulation, patient management and interpersonal relationships are stressed and practiced under supervision. A multidisciplinary approach to orthodontic mechanotherapy is presented. While predominantly straight-wire appliances, the student is also exposed to standard edgewise, bio progressive, functional, and other aligning appliances, and cases involving orthognathic surgery.
Credits: 0

PGDP-735: Orthodontic Clinic

This course has been designed to provide the students with knowledge and understanding of the philosophy and mechanics of fixed appliances. The course is designed to give the students exposure to orthodontic problems with as diverse types of malocclusions as our clinic population will permit. The basic laboratory and didactic course material are correlated and demonstrated through the treatment of patients. Diagnosis and treatment planning, record keeping, appliance construction and manipulation, patient management and interpersonal relationships are stressed and practiced under supervision. A multidisciplinary approach to orthodontic mechanotherapy is presented. While predominantly straight-wire appliances, the student is also exposed to standard edgewise, bio progressive, functional, and other aligning appliances, and cases involving orthognathic surgery.
Credits: 6

PGDP-741: Pediatric Dentistry Clinic

This course is designed to give the postdoctoral resident a broad base of information concerning the specialty of pediatric dentistry in a way that will result in their ability to confidently practice as a specialist in pediatric dentistry. It is designed to integrate fundamentals of pediatric dentistry with clinical techniques and to allow the resident to theorize and apply those fundamentals through critical thinking. This course will also incorporate elements of evidence-based dentistry as it relates to the pediatric, adolescent, and special needs population. The clinical experience will enhance the residents' ability to assess the pediatric patient's behavior and assess the need for behavior modification techniques. For the patient who needs sedation, the resident will be able to assess and monitor the patient before, during and after the sedation appointment. The resident will also incorporate the critical thinking skills to assess those pediatric patients who must be treated in the operating room. The residents will to able to assess, workup, complete and follow up the pediatric patients treated in the operating room. The clinic will also provide the resident with experience in the teaching of the pre-doctoral students in the treatment of children with special needs.
Credits: 7

PGDP-744: Pediatric Dentistry Lit Review

This course is designed to review the current and most pertinent literature in pediatric dentistry and the related areas of clinical dentistry and dental research. The students are expected to actively participate in each seminar, develop the ability to critically review each article/oral health policy studied, and relate the knowledge gained to their clinical experience.
Credits: 3

PGDP-745: Pediatric Dentistry Case Analysis Seminar

This course is designed to review and discuss all clinical, research and didactic instructions that the student receives in the Howard University Pediatric Dentistry Postdoctoral Program The records of clinical cases being treated or whose treatment has been completed will be used primarily as a basis for discussions. The student's knowledge and ability to manage clinical cases using evidence-based methodologies are evaluated. This course will also provide necessary knowledge and learning skills for each student to engage in the pursuit of Board Certification in its Specialty of Pediatric Dentistry.
Credits: 3

PGDP-746: Clinical Research

This course is designed to review and discuss all clinical and evidence-based research on the development of the occlusion during the mixed dentition phase of dental development. The series of discussions and presentations is to expand the postgraduate student's knowledge in the area of the dentition and occlusal development. During the course the students will make use of the relevant clinical research conducted on Children African and European American Descent. The student's knowledge and ability to manage clinical cases using evidence-based methodologies are evaluated. See note on page 577 related to courses with a range of credit hours.
Credits: 2

PGDP-750: Dental Education

This postdoctoral course is intended to introduce the history and evolution of dental education, the development of educational theories and practices, challenges in dental education, and the relationship between dental education and dental practice. Learners will be exposed to topics and activities that will aid understanding of some of the qualifications and skills that contribute to effective dental education, facilitate the ability to critically assess their current experiences and consider the possibilities of future academic and/or research careers.

Credits: 1

PGDP-758: Internal Medicine

Advanced principles of and procedures in the physical evaluation in preparation for matriculation into the second year of medical school. Advanced students learn to perform a physical examination, obtain a patient history and evaluate patient information. The first-year resident will spend 3 weeks shadowing a clinician-mentor in the ambulatory or hospital setting. The experience is meant to introduce the student to the practice of medicine (broadly defined) and allows the student to practice targeted parts of the medical interview and physical exam. The hands-on learning that these sessions provide is a complement to the basic science courses and physical examination skills obtained in Dental school. A critical component of this education exercise should be on observation of the medical interview in action and observing aspects of the patient-doctor relationship. Limited skills such as interviewing for an HPI, taking a family history, checking vital signs, and holding an otoscope will also be covered. Topics range from how to take vital signs to enhancing awareness of cross-cultural issues

Credits: 1

PGDP-760: Orthodontic Literature Review

Orthodontic Literature Review: Fall and Spring Semesters, 5 credit hours. This course consists of presentations of classic and current literature in orthodontics, discussions and related case presentations to familiarize the students with past and current literature and prepare them for the American Board of Orthodontics (ABO) written specialty board examination.

Credits: 3

PGDP-766: Mixed Dentition Seminar

Information presented in this course is designed to present the development of the occlusion during the mixed dentition phase of dental development. The interrelationships of skeletal, dental and soft tissue development will be stressed. Upon completion of the course, the student should be able to: 1) distinguish normal from abnormal development; 2) evaluate the growth pattern; 3) recognize the dental eruption pattern; 4) determine whether or not treatment should be instituted and 5) select the best therapeutic methods to maintain normal growth of the stomatognathic system, intercept, or correct abnormal development.

Credits: 1

PGDP-767: Comprehensive Surgery Orthodontic Seminar

The purpose of this seminar is to aid the resident in integrating and correlating his/her knowledge that has been presented to him/her in the orthodontic program in preparation for life after his/her training period. Each resident will be required to make presentations to the seminar on assigned topics. It is requested that audio-visual aids be used in the presentation. A summary sheet of the presented work must be prepared for distribution to the group.

Credits: 2

PGDP-768: Orthodontic Seminar

The purpose of this seminar is to aid the resident in integrating and correlating his/her knowledge that has been presented to him/her in the orthodontic program in preparation for life after his/her training period. Each resident will be required to make presentations to the seminar on assigned topics. It is requested that audio-visual aids be used in the presentation. A summary sheet of the presenter's work must be prepared for distribution to the group.

Credits: 2

PGDP-770: Orthodontic Clinic

This course has been designed to provide the students with knowledge and understanding of the philosophy and mechanics of fixed appliances. The course is designed to give the students exposure to orthodontic problems with as diverse types of malocclusions as our clinic population will permit. The basic laboratory and didactic course material are correlated and demonstrated through the treatment of patients. Diagnosis and treatment planning, record keeping, appliance construction and manipulation, patient management and interpersonal relationships are stressed and practiced under supervision. A multidisciplinary approach to orthodontic mechanotherapy is presented. While predominantly straight-wire appliances, the student is also exposed to standard edgewise, bio progressive, functional, and other aligning appliances, and cases involving orthognathic surgery.

Credits: 7

PGDP-771: Manuscript Preparation

Each resident receives individual instruction for formatting their research projects into manuscripts for journal submission.

Credits: 4

PGDP-778: Periodontic-Orthodontic Seminar

This course is designed to introduce the student to the use of the dental literature to develop an understanding of the interrelationship of Periodontics with the fields of orthodontics and pediatric dentistry.

Credits: 2

PGDP-779: Craniofacial Genetics

This course will review basic molecular genetic information and its function in transmitting the characteristics that perpetuate the species. Biochemical and cytological principles including Mendelian Law are presented which emphasize pedigree analysis, clinical and biochemical studies of hereditary diseases and chromosomal anomalies with their physical sequelae. Principles of genetic testing and counseling as well as the recent genetic discovery, advanced technologies, and strategy of personalized medicine.

Credits: 1

PGDP-822: Hospital-Clinical Oral and Maxillofacial Surgery

This course is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.
Credits: 9

PGDP-831: Oral Maxillofacial Surgery Problem Case Seminar

This triweekly conference series is dedicated to the review and discussion of current patient cases with emphasis in mortality and morbidity review.
Credits: 1.5

PGDP-832: Head and Neck Conference

Day to day instruction will focus on principles and pathophysiology of head and neck surgical disease, pre-, peri-, and post-operative care of surgical patients, and evaluation and development of procedural skills in minor oral surgery in an ambulatory setting.
Credits: 2

PGDP-836: Head and Neck Conference

Day to day instruction will focus on principles and pathophysiology of head and neck surgical disease, pre-, peri-, and post-operative care of surgical patients, and evaluation and development of procedural skills in minor oral surgery in an ambulatory setting.
Credits: 2

PGDP-843: Grand Case Presentation

This course includes a review of surgical cases, treatment outcomes and discussions on diagnosis and treatment planning. Additionally, there is a detailed review on selected medical or surgical topics.
Credits: 3

PGDP-850: Pharmacotherapeutics

This course is designed to provide the basic pharmacologic concepts and foundations necessary for the studies of advanced pharmacology. Covered topics include pharmacodynamics, pharmacokinetics, pharmacogenetics, and pharmacoeconomics, and their importance in the selection of proper pharmacotherapeutics and patient safety. In addition, the basic concepts of drug interactions and adverse reactions will be discussed together with pertinent examples and techniques to minimize potential risks to patient safety.
Credits: 1

PGDP-922: Hospital-Clinical Oral / Maxillofacial Surgery

This course is designed for students to gain clinical experience in their progression toward clinical competence in various clinical disciplines, in the treatment of the adult, child, geriatric and special needs patient population in a diverse, multicultural, humanistic environment. Students are assigned rotation groups of 3 to 4 students each. They are assigned to the various clinical areas by groups. There are a number of components of the Clinical Rotation course for both D3 and D4 students. The students have daily assignments. D3 and D4 students are assigned on according to a predetermined schedule at the commencement of each semester. The rotation clinics are Community Dentistry and the Chronically Ill and Aged Program for D4 students; then for both D3 and D4 students Oral and Maxillofacial Surgery, Oral Diagnosis, Radiology, Emergency Services, Orthodontics, and Pediatric Dentistry. Students are also assigned to the general clinic which is indicated on the schedule by the letter "C" for their rotation groups. The general clinic consists of Endodontics, Periodontics, Prosthodontics, and Restorative Dentistry. The Clinical rotations are a major component of the Clinical curriculum of the College of Dentistry. In each of the clinical rotations listed, patients are scheduled by the department for the rotating student to treat, aside from the student's family of assigned patients, all with a patient centered comprehensive care approach. When the students are scheduled to the general clinic, they are required to appoint their assigned patients, directed by the faculty, to the appropriate discipline in their patients' proper sequence of comprehensive treatment. In addition to these rotations there is a Clinical Dentistry component to ensure that the students have a variety of experiences to enhance their knowledge of practice management and dental education.
Credits: 9

PGDP-931: Oral Maxillofacial Surgery Problem Case Seminar

This triweekly conference series is dedicated to the review and discussion of current patient cases with emphasis in mortality and morbidity review.
Credits: 1.5

Prosthodontics

PROS-104: Occlusion Lecture

This course develops a clear concept of the anatomy of the Stomatognathic System, i.e., the location and function of structures relative to each other. Concepts of the forces involved in occlusion and their effects on the periodontium are presented and the factors for determining the pattern seen in mandibular movements, relating teeth and muscle function to the latter are made clear. Types of occlusal schemes and classifications will also be covered. Students will be introduced to the physiology of mastication, deglutition, speech, and respiration, along with tooth contact and the protective reflexes involved. Further, the student will learn about o the instrumentation used in the study and treatment of occlusal disease.
Credits: 1

PROS-111: Introduction to Prosthodontics

This course is designed to prepare students with an introduction to concepts in Fixed, Removable and Implant prosthodontics in order to develop a mastery of clinical and laboratory competence in the total Comprehensive Prosthodontics.
Credits: 1

PROS-205: Fixed Prosthodontics Lab II

The is part two of the course administered in the previous semester. It continues the delivery of basic principles of Fixed Prosthodontics to include preparation design and laboratory procedures in pouring impressions, die trimming, casting, etc. The student will gain the knowledge required to treatment plan patients requiring single crown and multiple fixed partial denture prostheses.
Credits: 3

PROS-206: Fixed Prosthodontics Lecture II

This course is the second part of the Fixed Prosthodontic Lecture series. Fixed Prosthodontics lecture II continues to hone the knowledge of Fixed Prosthodontics principles, which includes complex preparation design and laboratory procedures. Preparation for impressions, provisionals, and margin design for fixed prostheses will be emphasized. Through words and projected visual/illustration slides, the techniques that are to be performed in the laboratory will be presented. The lecture will also explain the rationale of these techniques and how they are based on sound biologic and mechanical concepts and principles. At the completion of the course series (Lecture and Lab), the student is expected to be competent in preparation design for partially edentulous patients and the related laboratory procedures and simulated exercises which serve as an introduction to the clinical practice of fixed partial denture prosthodontics.
Credits: 1

PROS-211: Removable Prosthodontics Lecture (D2)

This course is designed to explain, through words and projected visual illustration slides, the techniques that are to be performed in the laboratory. The lecture will also explain the rationale of these techniques and how they are based on sound biologic and mechanical concepts and principles. This lecture course is designed to run concurrently with the Removeable Prosthodontic Laboratory Course. Students with begin to develop the ability to accurately diagnose the conditions of patients requiring removable partial prostheses and develop comprehensive treatment plans, ability to render an honest and reliable prognosis concerning treatment rendered and ability to develop and maintain good rapport with patients.
Credits: 1

PROS-212: Removable Prosthodontics Laboratory II

This course is designed to continue and build on the training from the previous semester course in Removable Prosthodontics, with emphasis on the partially edentulous removable prosthetics. Students will hone their skills and abilities to accurately diagnose the conditions of patients requiring removable partial prostheses and develop comprehensive treatment plans. They will develop an ability to render an honest and reliable prognosis concerning treatment rendered and to develop and maintain good rapport with patients.
Credits: 2

PROS-214: Removable Prosthodontics Laboratory (D2)

This course is designed to provide adequate training in all basic Removable Partial Prosthodontics. The related laboratory procedures are simulated exercises serving as an introduction to the clinical practice of removable partial denture prosthodontics.
Credits: 2

PROS-215: Removable Prosthodontics Lecture II (D2)

A continuation of PROS-211. This course builds upon understanding of techniques that are to be performed in the laboratory.
Credits: 1

PROS-251: Fixed Prosthodontics Lab I (Lab)

This pre-doctoral laboratory course prepares the second-year dental student for clinical practice in Fixed Prosthodontics. The course will train the students to master clinical and laboratory competencies in Fixed Prosthodontics with hands-on preparation of dentoform teeth, simulating clinical practice. Students will be assigned projects that will be graded. Peer assessment and self-assessment techniques will be used for formative learning. Students will use content from the lecture course as reference for review and will have quizzes to test the student's knowledge during the laboratory assignments.
Credits: 0

PROS-262: Removable Prosthodontics II

This course builds on and integrates the laboratory experience obtained in pre-clinical courses with the treatment of Removable Prosthodontic patients at Howard University Dental Clinic. Student clinical experiences will be guided by clinical applications and techniques used by the department for the construction of complete and partial dentures. Emphasis is placed on treatment planning of clinical cases and the relationship of Removable Prosthodontics to other clinical disciplines. These aspects of the course are reinforced by lecture topics supporting clinical activities.

Credits: 1

PROS-264: Fixed Prosthodontics I (Lec)

This lecture course is designed to precede the Fixed Prosthodontic Laboratory Course. The student will briefly revisit the fundamental concepts of occlusion as related to Fixed Prosthodontics and learn the basic principles used in performing Fixed Prosthodontics procedures and their inter-relationship with Removable Prosthodontics and other disciplines.

Credits: 0.5

PROS-331: Preclinical Implant Lecture

This course along with the laboratory component will prepare students for clinical practice in Implant prosthodontics. The lecture course will present the theories associated with major concepts and principles expected for the development of competency in implant prosthodontics. The primary goals and objectives of this Implant Prosthodontics course involve clinical education and to inform laboratory training of the dental students. Lectures will cover the design of comprehensive treatment plans to include proper treatment sequencing of all steps in removable, fixed and implant supported denture procedures. The impact of occlusion, as it relates to implant prostheses and implant supported complete denture prosthodontic treatment will be discussed. Other topics to be covered include recognition and selection of appropriate materials to provide clinically acceptable impressions with respect to periodontal health, function, and esthetics for implant prostheses; restorative parts in clinical, surgical, and laboratory procedures to maximize esthetics and patient function; completion of laboratory authorization forms to ensure maximum esthetics and function in implant prosthodontic care.

Credits: 1

PROS-332: Preclinical Implant Laboratory

This course is designed to provide the students with the laboratory experience necessary to apply the knowledge of the basic principles of Implant Dentistry and their relevance to clinical implementation. Implant placement, prosthetic restoration, maintenance, and complications will be discussed. The student will have the knowledge with the clinical and laboratory procedures related to the implant dentistry as related in clinical restoration and surgical phases of implant dentistry and the laboratory fabrication of surgical stents, impression pouring and fabrication of provisional for implant prosthodontics. At the completion of the course, the student is expected to be competent in the clinical treatment planning for partially edentulous patients and major concepts in implant dentistry and show competence in laboratory impression making, surgical guide construction and provisional fabrication for implant denture prostheses.

Credits: 1

PROS-352: IDP Rem Prosthodontics Lab

This course is designed to provide adequate training in all basic Removable Partial Prosthodontics. The related laboratory procedures are simulated exercises serving as an introduction to the clinical practice of removable partial denture prosthodontics.

Credits: 0

PROS-367: Clinical Implant Lecture/Laboratory

The curriculum for Clinical Implant Lecture and Laboratory is a continuation of the Pre-Clinical Implant Laboratory and Lecture courses. This series of lectures and pre-doctoral clinical laboratory simulation procedures prepares students for the clinical practice in Implant prosthodontics. The course will continue the application and mastery clinical, and laboratory competencies in overdenture implant dentistry.
Credits: 2

PROS-441: Advanced Prosthodontic Concepts

The curriculum for the D-4 Prosthodontics didactic lecture is a compilation of advanced clinical and laboratory concepts and seminars in Comprehensive Prosthodontics. This course is designed to enable the students to master clinical, and laboratory competencies in the total Comprehensive Prosthodontics. The student will acquire training in advanced concepts and principles in Comprehensive Prosthodontics. Critical thinking skills will be used in establishing a comprehensive plan for oral presentations in comprehensive prosthodontics. The ability to accurately diagnose and treat partially edentulous patients, implant prosthetic cases with tools of complete restorative and surgical aspect of comprehensive approach will be emphasized and evaluated. Students will be able to demonstrate the ability to render an honest and reliable prognosis and diagnosis in treatment rendered and ability to develop and maintain good rapport with patients upon course completion. Problem solving and treatment involving post-insertion techniques and maintenance for prostheses to maintain the health of the periodontium will be a valuable learned tool in this course. Evaluation for referral of patients to specialists who are beyond the scope of the general dentistry will be discussed.
Credits: 1

Psychology

HUDE-208: Expressive Therapies and Approaches

Presents a conceptual framework and major contributions to studying familial functioning across the life cycle.
Credits: 3

PSYC-171: Psychopharmacology

This course offers an introduction to the field of Psychopharmacology from the perspective of how drug actions in the brain affect psychological processes. Students will further develop their basic understanding of neuroanatomy and the neurotransmitters of the nervous system associated with major diagnoses. Additionally, the use of medications to treat specific psychiatric disorders and the historical, political, and ethical context of psychotropic medications in mental health services will be explored.
Credits: 3

PSYC-203: First-Year Research

Students will be introduced to the logic behind psychological research and common research designs.
Credits: 1

PSYC-205: General Research Methods

Course Description: This course is a survey and overview of research methodology in psychology as a scientific field. The goal of the course is to acquaint students with fundamental questions and issues concerning approaches to scientific, experimentation-based psychology---cf. a hands-on experience of research may only be gained by participating in research activities in each student's area of study. The central questions recurring in various forms during the course are: a) What is scientific knowledge? (What is the kind of knowledge that we can accept in science?); b) How do we contribute to the body of such knowledge with our own research? (What are the designs and methods that can ensure research conclusions are valid statements?); c) What position would you take about the usefulness of psychological research as its consumer or practitioner?
Credits: 3

PSYC-206: History and Systems

Treats the development of psychology from philosophy and physiology and major systems and their influence.
Credits: 3

PSYC-207: Statistics I

Topics include probability and the logic of hypothesis testing, confidence intervals and effect sizes, parametric statistical tests (e.g., t-tests, ANOVA, and regression), nonparametric statistical tests, use of statistical data packages, and writing the results of a scientific report.
Credits: 3

PSYC-208: Statistics II

A continuation of PSYC-207. Topics include probability and the logic of hypothesis testing, confidence intervals and effect sizes, parametric statistical tests (e.g., t-tests, ANOVA, and regression), nonparametric statistical tests, use of statistical data packages, and writing the results of a scientific report.
Credits: 3

PSYC-210: Ethics & Issues-Prof Psych I

Deals with roles, functions, and organizations of psychologists; the teaching of psychology; curricula; professional and research ethics; social and legal controls; evaluation; and public policy.
Credits: 3

PSYC-211: Brain and Behavior

Introduction to concepts and research to understand relations between bodily processes and behavior, with a focus on human brain structure and function.
Credits: 3

PSYC-219: First-Year Research

Students will be introduced to the logic behind psychological research and common research designs.
Credits: 3

PSYC-220: Psychopathology

Covers individual and group pathology and treatment, with emphasis on social systems and their role in behavior disorder.
Credits: 3

PSYC-222: Social Psychology of the Individual

There are two components to this course: one is experientially-based and the other is theory-based. These two dimensions will be synthesized in the seminar discussions, readings, and assignments. This will require the ability to learn from experience as well as in-class activities.
Credits: 3

PSYC-225: Cognitive Development

This course is a survey of the broad field of cognitive development from the perspective of education and the learning sciences
Credits: 3

PSYC-228: Personality and Social Development

This course examines the basic topics in personality and social development. It is intended to provide a comprehensive overview of current research and theory in the field of developmental psychology.
Credits: 3

PSYC-233: Neuropsychology

This course is designed to provide you with a fundamental understanding of neuropsychological concepts, principles and issues. We will critically examine the clinical and experimental approaches used in the study of human brainbehavior relations, their influence in generating research questions and their contribution to the understanding of the brain's functional and structural organization. The paradigms that we will examine are organized around the idea that a host of sociocultural, biological, psychological and spiritual factors influences brain functions. Diversity topics (e.g., gender, race/ethnicity, religion, SEP, age) and brain health are considered in the context of these biopsychosocial and spiritual factors.
Credits: 3

PSYC-235: Topics in Developmental Psychology

Specialized course for those in the developmental psychology area focusing on current and/or seminal topics in the field.
Credits: 3

PSYC-237: Seminar in Developmental Psychology

A rotating discussion of topics in the wide domain of developmental psychology.
Credits: 3

PSYC-240: Research Methods in Developmental Psychology

This course examines the techniques of longitudinal, cross-sectional, normative and experimental studies. It is intended to provide a comprehensive overview of current research and theory in the field of developmental psychology, and the various methods used to investigate topics in the field. In order to achieve this goal, a hybrid format is often used where 50% of course instruction is conducted in the traditional manner in the classroom, and 50% of the instruction is offered online, at the instructor's discretion
Credits: 3

PSYC-244: Seminar in Neuropsychology

Over a four-year period, this course provides the comprehensive examination of a different sub-disciplines (Cognitive, Affective, Social, and Health Neuropsychology) in human neuropsychology. A critical review of theory, research, and methodology in each of these human neuropsychology sub-disciplines is offered.
Credits: 3

PSYC-248: Practicum in Developmental Psychology

This course is designed to help students in the developmental area achieve a level of mastery that is consistent with the goals of our graduate program, which include training the next generation of Black psychologists and others to produce new knowledge, teach, engage in clinical practice, develop policy, and transform lives, though the scientific work in the area of developmental psychology.
Credits: 3

PSYC-259: Health Psychology

This course is designed to provide students with in-depth exploration of theoretical frameworks within health psychology. Additionally, students investigate how health issues and health behaviors impact psychological functioning and well-being.
Credits: 3

PSYC-260: Race and Racism

This course examines the scientific status of efforts to cleave human variability into races. It provides a psychological perspective on the conceptual and empirical work related to racism that is available in an array of disciplines. Prerequisites: Graduate Status.
Credits: 3

PSYC-266: Psychology of Exceptional Children

This course is designed to familiarize you with the psychology and special problems of children who have health, intellectual, academic, emotional, behavioral, sensory and physical exceptionalities.
Credits: 3

PSYC-271: Psychopharmacology

This course will provide students with an introduction to psychopharmacology, summarizing the basic concepts of the functions of the organs and systems of the human body and brain. Students will identify and assess the actions, effects, uses and abuses of legal and illegal drugs.
Credits: 3

PSYC-277: Applied Multivariate Statistics

This course covers advanced-level multivariate statistical methods, including an overview of the general linear model, assumptions of multivariate statistical procedures, MANOVA and MANCOVA, discriminant function analysis, canonical correlation analysis, cluster analysis, and principal components analysis.
Credits: 3

PSYC-280: Clinical Assessment I

Introduces students to clinical psychology, including a comprehensive review of clinical techniques and a community practicum.
Credits: 3

PSYC-281: Clinical Assessment II

Involves clinical techniques in the assessment of intellectual and personality processes and a community practicum.
Credits: 3

PSYC-284: Psych Testing Assess Prac I

Students undertake supervised administration, scoring, and evaluation of psychological tests in settings where psychological testing is a daily activity.
Credits: 0

PSYC-285: Testing Practicum II

A continuation of testing activities begun in PSYC-284.Practicum I. . Students undertake supervised administration, scoring, and evaluation of psychological tests in settings where psychological testing is a daily activity
Credits: 0

PSYC-286: Practicum III

Supervised psychotherapy practice.
Credits: 0

PSYC-287: 2nd Yr Therapy Prac IV

Supervised psychotherapy practice.
Credits: 0

PSYC-288: Neuropsychological Assessment

Supervised psychotherapy practice.
Credits: 3

PSYC-291: Family Assessment and Therapy

Supervised psychotherapy practice.
Credits: 3

PSYC-292: Practicum V

Analyzes principles and experience in program development. Study of community structure; social systems/ environmental influences, change process, and the development and evaluation of community intervention. Practicum.
Credits: 0

PSYC-293: 3rd Yr Practicum VI

Supervised psychotherapy practice.
Credits: 0

PSYC-294: Individual Psychotherapy I

Introduces student to individual psychotherapy. Focus on psychotherapy with adults. Practicum.
Credits: 3

PSYC-296: Individual Psychotherapy II

A continuation of PSYC-294. Introduces student to individual psychotherapy. Focus on psychotherapy with adults. Practicum.
Credits: 3

PSYC-315: Complex Case Conceptualization, Consultation, and Supervision

In addition, to conceptualizing a client's problems and treatment options, this course covers the skills needed to conceptualizing system wide problems. Students will develop consultation skills that are needed in a variety of education and health systems. Finally, we will learn how to conceptualize the supervision process for different levels of clinical experience.
Credits: 3

PSYC-390: Clinical Psychology Externship

The externship program is designed for advanced doctoral students in Clinical Psychology, Counseling Psychology, or other related fields who are interested in further developing their clinical skills, building their theoretical knowledge, and working with students in a university counseling center setting. The theoretical perspective of the training program is integrative, with a relational and multicultural focus.
Credits: 1

PSYC-391: Clinical Psychology Externship

The externship program is designed for advanced doctoral students in Clinical Psychology, Counseling Psychology, or other related fields who are interested in further developing their clinical skills, building their theoretical knowledge, and working with students in a university counseling center setting. The theoretical perspective of the training program is integrative, with a relational and multicultural focus.
Credits: 2

PSYC-392: Clinical Psychology Externship

The externship program is designed for advanced doctoral students in Clinical Psychology, Counseling Psychology, or other related fields who are interested in further developing their clinical skills, building their theoretical knowledge, and working with students in a university counseling center setting. The theoretical perspective of the training program is integrative, with a relational and multicultural focus.
Credits: 3

PSYC-400-415: Graduate Research

Supervised research course reserved for working to fulfil the requirement for milestone projects (thesis equivalency, dissertation proposal, etc.).
Credits: 3

PSYC-600: Clinical Internship

Students may obtain course credit by working for a human service organization during one semester of the academic year and simultaneously enrolling in an academic course that includes weekly meetings, reading, and writing assignments, along with student-created learning plans and an independent project.
Credits: 1

PSYC-601: Internship

Students may obtain course credit by working for a human service organization during one semester of the academic year and simultaneously enrolling in an academic course that includes weekly meetings, reading, and writing assignments, along with student-created learning plans and an independent project.
Credits: 1

Public Health Program

PUBH-6247: Advanced Epidemiological Methods (George Washington University Course)

Study design, proposal development, and critique of published studies. Please note that consortium courses are charged by the teaching university. For students receiving military benefits, they will need to be certified by both schools.
Credits: 3

PUBH-6390: Prescription Drugs: Policy and Public Health

Key policies and public health programs related to each stage of a prescription drug's life cycle; Congressional funding focused on speeding the development and approval of needed drugs, public and private approaches to increase access to prescription drugs, and exceptions to international laws that allow some countries to violate prescription drug patents to improve the health of impoverished citizens.
Credits: 3

Radio Television and Film

RTFG-500: Film History

Survey of the history of film beginning with the early silent cinema and radio and culminating with the classic Hollywood cinema
Credits: 3

RTFG-501: Scriptwriting I

The purpose of the course is to learn about film and television screenplay structure, analyze dramatic strategies in film and television, learn and apply correct script form, and creatively engage in the various stages of original scriptwriting.
Credits: 3

RTFG-502: Film Editing

Designed to foster positive learning experiences while teaching the basic production and editing techniques of cinematography. The course is designed to involve students in the technological environment of both live and recorded film productions.
Credits: 3

RTFG-503: Cinematography II

Explores the art of visual storytelling and provides a firm overview of the technical foundation in how to effectively use the camera, lighting, and other tools to convey your message. The course starts by examining the art of photography and video, and how to properly harness the medium to communicate your message. From there, you will learn about the technical skills needed to create images and videos through a discussion of the camera and its components. You will learn to control the viewer's experience through creative choices you make about where to put the camera and how to move it.
Credits: 3

RTFG-504: Film Analysis

This course introduces students to the basics of film analysis, cinematic formal elements, genre, and narrative structure and helps students develop the skills to recognize, analyze, describe and enjoy film as an art and entertainment form.
Credits: 3

RTFG-601: Film Criticism and Theory

This course provides an introductory overview to film theories and methods of film analysis. Film theory describes how cinema functions as a medium, art form and practice, institution (etc.), and how cinema signifies (e.g. communicates, produces meanings, and constructs itself as a language).
Credits: 3

RTFG-602: Cinematography III

A continuation of RTVF-503. Explores the art of visual storytelling and provides a firm overview of the technical foundation in how to effectively use the camera, lighting, and other tools to convey your message. The course starts by examining the art of photography and video, and how to properly harness the medium to communicate your message. From there, you will learn about the technical skills needed to create images and videos through a discussion of the camera and its components. You will learn to control the viewer's experience through creative choices you make about where to put the camera and how to move it.
Credits: 6

RTFG-603: Film Directing

Introduction to the history, theory and basic concepts of film direction. Includes interpretative script analysis, creative visualization, conceptualization, use of space, working with actors and designers, and direction of short scenes and videos. Special fees apply.
Credits: 3

RTFG-604: Cinema Sound

This course covers the fundamental elements of producing, designing, and editing sound for film/video. Students learn the basics of audio recording, sound editing, and multi-track sound design specifically for the moving image.
Credits: 3

RTFG-700: African American Cinema

This course surveys the history, theories, debates, and controversies that have character- ized African American cinema, with an emphasis on the relationship between African American cinema and American culture and politics more broadly.
Credits: 3

RTFG-701: Scriptwriting III

A continuation of RTVF-501. The purpose of the course is to learn about film and television screenplay structure, analyze dramatic strategies in film and television, learn and apply correct script form, and creatively engage in the various stages of original scriptwriting.

Credits: 3

RTFG-702: Film Practicum

This course provides students with practical film production experience by participation in approved filmmaking projects.
Credits: 3

RTFG-703: Advanced Film Directing

personal voice and style in filmmaking. Students will combine advanced techniques in script analysis, actor staging and blocking, and carefully designed camera movement as elements of visual style with detailed analysis of subject, theme, and point of view as elements of voice.
Credits: 6

RTFG-800: African Cinema

This course intersects academic categories and topics such as Film, Media, Cultural Studies, French civilization and culture, colonialism, emigration, postmodernism. Cinema is a social discourse, a presentation and representation.
Credits: 3

RTFG-801: Production / Distribution / Exhibit Seminar

Course provides students with a real world experience of helping to develop a concept and then select material and negotiate for the rights to that content. Students learn the importance of networking and pitching, and pitch a project to the class for production selection. The importance of the collaborative process with writers is the main focus, as well as the marketing, distribution and packaging of a film.
Credits: 3

RTFG-802: Thesis

Thesis guidance for M.A. students.
Credits: 6

RTFG-803: Independent Study

Allows the student to explore a topic of interest under the close supervision of a faculty member. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate
Credits: 3

RTFG-804: Scriptwriting IV (Screenwriting Option)

A continuation of RTVF-701. The purpose of the course is to learn about film and television screenplay structure, analyze dramatic strategies in film and television, learn and apply correct script form, and creatively engage in the various stages of original scriptwriting.
Credits: 3

Regulatory Affairs

RAFF-6201: Introduction to Global Regulatory Affairs

Foundations of regulatory affairs, including U.S. and international legislation and regulatory processes guidelines. Roles of leaders of regulatory affairs in developing products, navigating the regulatory review and approval process, and contributing to keeping products on the market.
Credits: 3

RAFF-6202: Regulatory Drug Biologics

Development and evaluation of the regulatory affairs strategies that support drug and biologic development.

Research science, study design, master file, risk/benefit analyses, product specifications and milestone identification, IND and NDA.

Credits: 3

RAFF-6275: Leadership & Change in Regulatory Affairs

Theories of leadership and change are integrated in the development of change proposals for the regulatory affairs field. The development of leadership solutions to problems in leading regulatory strategic change; integration of all field coursework into implementation plans for health care system changes.
Credits: 3

Restorative Dentistry

REDE-106: Dental Materials

This course explains the evolution/development, mechanical and physical properties, biological characteristics, manipulation, and evaluation of materials used in prevention, treatment, and restoration of the oral cavity. It is a multidisciplinary course involving all the basic scientific principles of chemistry, organic chemistry, biology, physics, and engineering as they apply to each material. The first-year dental student will be introduced to the fundamental principles of the science of dental materials. These principles will assist the student in electing preventive, restorative, and auxiliary materials as part of comprehensive treatment planning.
Credits: 2.5

REDE-116: Behavioral Dentistry

This course is designed to be a core didactic learning experience in an evolving behavioral dental curriculum. This initial course is arranged to provide pre-doctoral dental students with an introduction to socio-behavioral aspects of dental practice. The following issues will be discussed throughout this course: effective communication with patients and interprofessionals, core concepts of patient-centered dental care, addressing behavioral aspects of dental care, and management of vulnerable patients. This course supports several ADEA competencies in the areas of Critical Thinking, Professionalism, Patient Care, Health Promotion and Communication and Interpersonal skills.
Credits: 1

REDE-120: Dental Anatomy Lec/Lab

This course is an introduction to permanent and primary tooth anatomy. Focus is put on the study of the morphology, function and identification of each of the teeth in the human dentitions, as well as the way in which the teeth relate in shape, form, structure, color and function to the other teeth in the same arch and the opposing arch. Emphasis will be on the development of manual dexterity, perception, and evaluative skills.
Credits: 3

REDE-208: Operative Dentistry Lecture

This course accompanies the Operative Laboratory course and is designed to provide the theory used in the application and execution of Operative Dentistry and supports the Operative Dentistry Laboratory courses. The science of Operative Dentistry and the techniques for procedures used in Laboratory are presented through lecture. The practical application of these skills will prepare students for clinical Operative Dentistry.
Credits: 1

REDE-214: D2 Spring Dental Practice Readiness Curriculum

This second level course is designed to build upon the content presented in Dental Practice Readiness Curriculum I. The second-year dental student will receive information to assist the development of competence in dental economics and the management of a successful dental practice. The online Dental Practice Readiness Curriculum (DPRC) addresses the challenge of compressed dental school curricula with limited time for non-clinical topics. Students will read and give written summaries on current event articles that highlight current trends and activities in dental practice economics, and business in general.
Credits: 1

REDE-234: Dental Practice Readiness Curriculum I

This course is designed to present the first-year dental student with information on dental career preferences and opportunities available to them as dental professionals. Steps for creating a viable career plan will be presented. The student will develop competence in dental economics and the management of a successful dental practice. The online Dental Practice Readiness Curriculum (DPRC) addresses the challenge of compressed dental school curricula with limited time for nonclinical topics. A blended-learning format which includes online education, simulations, and self-directed learning, as an alternative approach to faculty intensive classroom-based strategies, will be used.
Credits: 1

REDE-253: Operative Dentistry II (Lab)

The fall semester curriculum of the Operative Lab is designed to teach students how to select materials and restore the preparations of teeth with different restorative materials. The application of cements, liners, bases, and temporary restorative materials are performed as well as those of permanent materials, such as amalgam and direct composite. This pre-clinical exposure to Operative Dentistry is performed on a dentoform simulating the clinical experience. Ergonomics, proper treatment planning, infection control, and basic sciences relative to dental caries and restoration are all incorporated in the student's overall learning experiences.
Credits: 3

REDE-308: Restorative Dentistry

Restorative Dentistry Lecture provides a transition for the dental student entering the clinic. This course is designed to reinforce, integrate, and build upon knowledge acquired in the previous two years of the Restorative Dentistry curriculum. A clinical perspective is presented, illustrating the integration of the dental disciplines employed in rendering live patient care. The student will gain an appreciation for oral health problems and how they can be managed, restoratively. Lectures will provide examples of commonly treated dental conditions, dental materials used in treating these conditions, and will assist the student in selecting potential courses of intervention. The student will review and critique case-based literature, in an effort to evaluate current trends and justifications for treatment options.
Credits: 1

REDE-334: Dental Practice Readiness Curriculum III

This DPRC curriculum continues. The level 3 course is designed to assist in the development of competence in dental economics and the management of a successful dental practice for the third-year student. The DPRC Level 3 course will include an introduction to marketing and the development of a marketing campaign specific for the dental practice, the use of social media in marketing, development of a contingency plan, and an overview of dental practice overhead.
Credits: 1

REDE-347: D3 Spring Dental Practice Readiness IV

This lecture series is designed to continue the practice management curriculum. In this course, the third-year dental student will be provided content intended to assist in the development of competence in dental economics and the management of a successful dental practice. Level 4 will include an introduction to the development of a contingency plan, an overview of dental practice overhead, an understanding of dental insurances, dental coding, and risk management.
Credits: 1

Saxophone

MUSQ-100: Saxophone Instruction

Private lessons to non-music major. Permission of coordinator/instructor required. Course can be repeated.

Credits: 1

MUSQ-111: Saxophone Minor

Includes major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSQ-112: Saxophone Minor

Includes major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSQ-121: Saxophone Minor
Continuation of MUSQ-111, 112.
Credits: 2

Prerequisites:

MUSQ-111, 112, or consent of instructor.

MUSQ-122: Saxophone Minor
Continuation of MUSQ-111, 112.
Credits: 2

Prerequisites:

MUSQ-111, 112, or consent of instructor.

MUSQ-131: Saxophone Minor
Continuation of MUSQ-121, 122.
Credits: 2

Prerequisites:

MUSQ-121, 122, or consent of instructor.

MUSQ-132: Saxophone Minor
Continuation of MUSQ-121, 122.
Credits: 2

Prerequisites:

MUSQ-121, 122, or consent of instructor.

MUSQ-141: Saxophone Minor

Continuation of MUSQ-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSQ-131, 132, or consent of instructor.

MUSQ-142: Saxophone Minor

Continuation of MUSQ-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSQ-131, 132, or consent of instructor.

MUSQ-211: Saxophone Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.

Credits: 4

MUSQ-212: Saxophone Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSQ-221: Saxophone Major

Continuation of MUSQ-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSQ- 211, 212, or consent of instructor.

MUSQ-222: Saxophone Major

Continuation of MUSQ-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSQ- 211, 212, or consent of instructor.

MUSQ-231: Saxophone Major
Continuation of MUSQ-221, 222.
Credits: 4

Prerequisites:

MUSQ-221, 222, or consent of instructor.

MUSQ-232: Saxophone Major
Continuation of MUSQ-221, 222.
Credits: 4

Prerequisites:

MUSQ-221, 222, or consent of instructor.

MUSQ-241: Saxophone Major

Continuation of MUSQ-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSQ-231, 232, or consent of instructor.

MUSQ-242: Saxophone Major

Continuation of MUSQ-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSQ-231, 232, or consent of instructor.

MUSQ-301: Graduate Saxophone Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSQ-302: Graduate Saxophone Minor II

A continuation of MUSQ-301. This course builds upon saxophone performance techniques.
Credits: 3

MUSQ-303: Graduate Saxophone Minor III

A continuation of MUSQ-302. This course builds upon saxophone performance techniques.
Credits: 3

MUSQ-304: Graduate Saxophone Minor IV

A continuation of MUSQ-303. This course builds upon saxophone performance techniques.
Credits: 3

MUSQ-311: Graduate Saxophone Major I

Private instruction in performance for graduate students.
Credits: 5

MUSQ-312: Graduate Saxophone Major II

Private instruction in performance for graduate students.
Credits: 5

MUSQ-321: Graduate Saxophone Major III

Private instruction in performance for graduate students.
Credits: 5

MUSQ-322: Graduate Saxophone Major IV

Private instruction in performance for graduate students.
Credits: 5

Saxophone Ensemble

MUTD-301: Saxophone EnsembleI

Students will be assigned with saxophone quartet ensemble works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.
Credits: 1

Social Welfare Policy & Services

SWPS-213: Social Welfare Policy & Services I

Provides the history, mission, philosophy, and evolution of social welfare policies and services that form the foundation of social welfare, specifically in relation to poverty, racism, and the needs of oppressed and marginalized populations from both a strengths and Black perspective using social policy frameworks and social work values and ethics. Examines African American and other social welfare pioneer exemplars, their efforts to influence and change social welfare policy and services, and their influence on contemporary programs and services in select Fields of Practice.
Credits: 3

SWPS-214: Social Welfare Policy & Services II

Builds on content in SWPS-213 by promoting understanding of and competence in application of policy frameworks for analysis, formulation, advocacy, use of policy research through assessing context, intent, process and the impact of organizational, executive, legislative, and judicial decisions to advanced social and economic justice. Examines use of diverse strategies to create planned change in organizations and larger social systems for direct, community, administration and policy practice.
Credits: 3

Prerequisites:

SWPS-213.

SWPS-217: Criminal Justice I

(Advanced course) Focuses on the cyclical nature of criminal justice policies, elements of the systems, key legal decisions, and the meaning of this system for blacks and other minorities and persons of color and the role of social workers in the field of criminal justice. Emphasis is placed on understanding the theoretical basis of crime and crime causation. One of six Field of practice specialization options. May be taken as elective in second year in regular degree program, or second or third semester in Advanced Standing program.
Credits: 3

SWPS-218: Criminal Justice II

(Advanced course) Critically examines relevant literature for specific issues in the field of criminal justice related to the theories of crime, causation, judicial and institutional reform, racial equity, ethics, values, leadership, social justice policy, data analysis and offender reintegration. Emphasis is placed upon analysis of populations in the criminal justice system; the impact/role of the African-American and other people of color as client(s) and/or practitioner(s) in the criminal justice system; and, the role of the social work profession in criminal justice as well as some of the current critical issues that impact the American justice system such as mandatory minimum sentences, disproportionate minority contact and restorative justice. Second of two required courses if Field of Practice option. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-219: Social Gerontology I

(Advanced Course) Focuses understanding the biology of aging, psychosocial issues, major sociological theories, death and dying and current social gerontology issues. Emphasis is placed on the impact of economic, cultural, and social forces on the aging process, the role of the social worker in geriatric settings, and implications of race, ethnicity, gender and class in understanding the elderly population. One of six Field of practice specialization options. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-220: Social Gerontology II

(Advanced course) Examines the policies, programs, and services designed to deal with the problems of the elderly. Provides a forum for analyzing and evaluating aging policies and programs and for gaining insight and knowledge about the roles of social work in the aging field; examines current research in the field of aging, and emphasizes the role of social work advocacy and empowerment of the elderly in impacting social policy change. Second of two required courses if Field of Practice option. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-222: Advanced Community Organizing

Examines a range of historical and contemporary models of community organization practice methods, and values ethics, and skills involved in leadership roles. Emphasizes strategies and tactics for empowering groups and organizations through planned change to promote social and economic justice. [CAPP (Macro) majors must choose this course or Advanced Social Policy Analysis as their required elective. Advanced second-year elective for direct service majors.]
Credits: 3

SWPS-300: Social Work with Displaced Populations I

(Advanced course) Provides knowledge and framework for understanding the experiences of displaced populations (immigrants, refugees, and victims of natural and manmade disasters, et al.) and analyzing their problems and their diverse needs. The professional roles, responsibilities, and practice interventions of social work are presented and explored. Major emphasis is placed upon commonalities as well as differences found among these groups at the international and national levels. Advanced Field of Practice Specialization Course or Elective
Credits: 3

SWPS-301: Women, Power, and Change

(Elective) Provides students with an in-depth examination of the status and plight of women in society and within the social work profession. Enhances knowledge and understanding of women's issues in relation to changing roles, sexism, racism, and empowerment from a global perspective. Explores historical and contemporary issues that govern society's view of women and the concomitant adverse effect on the lives of women.
Credits: 3

SWPS-302: Human Service Administration

(Advanced course, Practice Methods III) Addresses in greater depth and specificity knowledge of the history, theoretical frameworks, and functions and skills for managing human service organizations and leading culturally diverse community groups, boards, and committee meetings. Examines staff development, the role of social work supervision, collaboration and partnership development, team building, group decision-making and/or problem-solving strategies and use of technology in administration practice. Includes a focus on social planning and budgeting processes for nonprofit organizations.
Credits: 3

Prerequisites:

SWDS 100, SWPS 310.

SWPS-305: Social Work Supervision

(Elective) Examines basic concepts of social work supervision strategies and techniques. Examines ethical dilemmas, legal considerations and methods of engaging, training and evaluating a diverse workforce.
Credits: 3

SWPS-308: Resource Development

(Advanced course, Practice Methods IV) Provides students with knowledge and skills in strategic planning for resource development, program planning, grant proposal writing, financial management, entrepreneurship, and community and institutional capacity building and multi-level fundraising. Emphasis is placed on the conceptualization process involved in planning for resource development, as well as creating an actual funding plan, identifying funding sources, critical analyzing of internal and external factors, designing comprehensive multi-level income streams, budget analyzing and utilizing different types of budgets for different purposes, proposal writing, and analyzing roles and role development of: staff, boards, alliances/coalitions, stakeholders, and others. Special attention is given to the unique experiences and challenges faced by organizations in African- American communities and other communities of color.
Credits: 3

Prerequisites:

SWPS-302 and SWPS 310.

SWPS-311: Social Work Practice with Communities & Organizations

Deepens the conceptual base introduced in SWDS-100. Examines multilevel needs and strengths of diverse peoples, organizations, and communities. Focuses on community, organizational and administrative practice theories, assessment, and approaches. Uses conceptual and practice models and cases to understand use of relationship, power, and influence in macro practice. Explores leadership styles and roles as social workers practicing with communities and organizations.
Credits: 3

SWPS-313: Systems Analysis

(Advanced course) Examines in depth, human services organizations as systems, external connections with environment, organizational culture, behavior, climate, reward systems, infrastructure, and effectiveness. Assesses and applies organizational development strategies and techniques to bring about planned change.

Credits: 3

SWPS-315: Substance Use and Abuse

(Elective) Provides an understanding of the widespread use and misuse of alcohol, tobacco and other drugs (ATOD). Explores the dynamics of addictions as they are manifested at the individual, family, group and community levels. Current theories of addiction are explored along with strengths-based methods of assessment, prevention, and intervention in a variety of state, local, and private addictions agencies. Focus on the historical, biopsychosocial, and legal implications of drug abuse, including the controversial link between addiction and criminalization in the African American community. The impact of drug policies on African Americans, other oppressed groups, and high-risk populations are examined within the context of empowerment, social justice and relevant concepts.
Credits: 3

SWPS-324: Program Development and Entrepreneurship

(Elective) Focuses on the process of conceptualizing, planning, budgeting, evaluating, and securing public and private resources to develop, fund, staff, and measure the effectiveness of programs to meet identified outcomes. Examines types and methods of developing different models of social work entrepreneurship.
Credits: 3

SWPS-328: Environmental Justice and Community Health

The course integrates environmental justice issues for social work research and practice with a multi-disciplinary focus on the environment. Special emphasis is given to such issues as sources of environmental pollutants; health threats from environmental hazards; and the broader socio-impact. In addition, it provides an overview of public policies, practice and other factors that create environmental disparities including discriminatory land use and residential patterns.
Credits: 3

SWPS-330: Contemporary Issues in Domestic Violence

(Elective) Examines definitions, cycle, and theories regarding the causation and myths of intimate partner violence. Domestic violence is examined among diverse populations, including teen dating violence and older populations, diverse racial and ethnic groups, and among immigrant communities. Issues regarding the health, mental health, and criminal justice and child welfare implications of domestic violence are examined. Strategies to address domestic violence at the direct service, community, faith-based, and international levels are explored.
Credits: 3

SWPS-340: International Social Development

This course examines the history and context of international social development. It explores the significance of globalization and how to engage diverse public and non-governmental organizations. Special attention is given to African and Caribbean countries. The social and economic justice implications of international social development are also discussed, along with human rights and the unique experiences of women globally.
Credits: 3

SWPS-401: Social Work with Displaced Populations II

(Advanced course) Continuation of SWPS-300, Social Work with Displaced Populations I. Analyzes social policies, programs, and intervention strategies utilized by service providers and institutions in response to the phenomena of displaced populations. Discusses policy issues related to disadvantaged status and discrimination, availability and acquisition of services, and legal status and treatment of displaced populations. Second of two required courses if Field of Practice option. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-418: Family and Child Welfare Services I

(Advanced course) Examines the state and condition of the family as an institution in American society focusing on social forces and practices that impinge upon the family. Further analyzes relationships between policies, programs, and service delivery in promoting or impeding growth and development of individuals within families and the family unit as a whole. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-419: Family and Child Welfare Services II

(Advanced course) Continuation of SWPS-418, Family and Child Welfare I with focus on individual, familial, and societal forces that influence the welfare of children within the American society. Explores institutional delivery systems in which child welfare practice occurs. Examines current legal and administrative mandates that impact the development of child welfare policies through the lens of the Black Perspective. Second of two required courses if Field of Practice option. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-420: Social Work Services for Children and Youth with Developmental Disabilities and Their Families

(Elective) This course is designed to examine and understand the impact of a emotional and physical disabilities on family functioning and on the children's own physical and emotional development. Particular attention is given to understanding the role of the social worker in providing family and individual support with a school social work focus.
Credits: 3

SWPS-421: Seminar in Advanced Social Policy Analysis

Examines diverse models of social policy analysis used in the policy process. Emphasizes the use of diverse policy analysis tools to understand and critique social policy. Topic areas are determined by the professor teaching the course. [CAPP (Macro) majors must choose this course or Advanced Community Organization as their required elective. Advanced second-year elective for direct service majors.]
Credits: 3

SWPS-424: Social Work in Mental Health Settings I

(Advanced course) Examines evidence-based mental health practice, the historical development of mental health services and the major roles played by social workers. Explores social policies that authorize, support and sanction mental health programs and examines emerging trends that authorize, support, and sanction social work practice, the institutional delivery systems, contributions, limitations, and the existing and potential alternatives for mental health services. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-426: Social Work in Mental Health Settings II

(Advanced course) Continuation of SWPS-424, Social Work in Mental Health Settings I. Examines special populations in mental health systems as well as the quality and effectiveness of engagement, diagnosis and assessment, and effective interventions for specific. Emphasis is placed on the interplay of individual genetics, family circumstances, community environment, and larger societal policies as well as the roles of community organizer and advocate in achieving better outcomes for those with mental health problems. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-427: Social Work in Health Care Settings I

(Advanced course) Examines the social policy framework and trends that authorize, support, and sanction social work practice, the institutional delivery systems, the contributions, limitations, and the existing and potential alternatives for health care. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

SWPS-428: Social Work in Health Care Settings II

(Advanced course) Continuation of SWPS-427, Social Work in Health Care Settings I. Covers issues relevant to the healthcare service delivery systems and micro and macro social work practice. Examines a variety of healthcare settings and the role of social work in healthcare delivery systems as well as current issues pertinent to health care for a diverse consumer population. Second of two required courses if Field of Practice option. Advanced Field of Practice Specialization Course or Elective.
Credits: 3

Social Work Direct Services

SWDS-100: Social Work Practice & Processes

Focuses on the foundation of social work practice and processes from a generalist practice framework introducing both micro and macro practice. Emphasis is placed on the introduction of social work knowledge, ethics, and values, promotion of social and economic justice, eco-systems, cultural competence, the problem-solving process and development of the client/consumer-worker relationship. Explores the relevance of practice-informed research and research-informed practice in working with diverse consumer populations, organizations and communities.
Credits: 3

SWDS-301: Women, Power, and Change

(Elective) Provides students with an in-depth examination of the status and plight of women in society and within the social work profession. Enhances knowledge and understanding of women's issues in relation to changing roles, sexism, racism, and empowerment from a global perspective. Explores historical and contemporary issues that govern society's view of women and the concomitant adverse effect on the lives of women.
Credits: 3

SWDS-305: Direct Practice

(Differential Foundation course, Practice Methods II) Deepens understanding of concepts and principles introduced in SWDS-100, with emphasis on the assessment phase of the problem-solving process in direct practice. Field education experiences and theoretical concepts are integrated with focus on understanding and application of interviewing skills, values and ethics, ecological and strength based approaches, and goal setting and termination. Interventional strategies dealing with individuals and families are introduced in addition to selected knowledge from small group practice.
Credits: 3

SWDS-308: Resource Development

(Advanced course, Practice Methods IV) Provides students with knowledge and skills in strategic planning for resource development, program planning, grant proposal writing, financial management, entrepreneurship, and community and institutional capacity building and multi-level fundraising. Emphasis is placed on the conceptualization process involved in planning for resource development, as well as creating an actual funding plan, identifying funding sources, critical analyzing of internal and external factors, designing comprehensive multi-level income streams, budget analyzing and utilizing different types of budgets for different purposes, proposal writing, and analyzing roles and role development of: staff, boards, alliances/coalitions, stakeholders, and others. Special attention is given to the unique experiences and challenges faced by organizations in African- American communities and other communities of color.
Credits: 3

SWDS-309: Intervention Planning & Strategies

(Advanced course, Practice Methods III) Develops advanced knowledge of social work planning and intervention strategies based on social work treatment theories and models for practice at the individual, family and group level. Selected approaches for social work interventions are examined to determine the basic assumptions of the model, theoretical underpinnings, nature and depth of problem identification and assessment, procedures and processes appropriate for selected models, culturally competent application of the model, indications and contraindications for use, values and ethical considerations in intervention planning, and termination and evaluation.
Credits: 3

Prerequisites:

SWHB-207, SWDS-100, SWDS-305.

SWDS-310: Community & Organization Practice

(Differential Foundation course, Practice Methods II) Deepens the conceptual base introduced in SWDS-100. Examines multilevel needs and strengths of diverse peoples, organizations, and communities. Focuses on community, organizational and administrative practice theories, assessment and approaches. Uses conceptual and practice models and cases to understand use of relationship, power and influence in CAP (Macro) practice. Explores leadership styles and roles as social workers in CAP (Macro) practice.
Credits: 3

Prerequisites:

SWDS-100.

SWDS-314: Group Therapy 3

Examines core mechanisms of changes which cut across or are common to the various group therapy approaches and are intrinsic to group processes and functioning as well as those elements, which differ among the approaches. Explores such factors as membership composition, purposes, group structure, interventive techniques and evaluation procedures. Examines various these approaches in relation to their relevance and applicability to the diverse populations currently receiving services in the myriad of agencies offering social work services. Particular attention is given to the relevance of the various group approaches for African-Americans and other oppressed groups: ethnic groups of color, women, gay and lesbian clients, handicapped persons, children, and the elderly.
Credits: 3

SWDS-317: Intervention Strategies with Selected Clinical Problems

(Advanced course, Practice Methods IV) Integrates and expands knowledge, values and skills taught in previous courses. Emphasis is place on increasing knowledge and skills in making differential diagnoses for select clinical syndromes and selecting empirically-base, culturally appropriate treatment interventions and strategies. Develops understanding of neurotransmitters related to select clinical syndromes and knowledge of psychopharmacological medications for the treatment of clinical syndromes. Emphasis is placed on the identification and treatment of loss and grief issues that are most prevalent in fields of practice in urban settings and their relevance for diverse consumer populations.
Credits: 3

Prerequisites:

SWDS-305, SWDS-309.

SWDS-321: Psychopharmacology

Prepares the social work student to enhance and extend knowledge of psychopharmacology. Students will further develop their basic understanding of the study of and use of medications to treat psychiatric disorders. This is an elective course in the area of direct practice. This course can be taken after the completion of the foundation courses and the psychopathology course. This course reviews the historical, political, and ethical context of psychotropic medications in social work practice and provides a basic overview of neuroscience, pharmacology and psychopharmacology. The contemporary social work roles in medication management are debated and necessary skills for effective collaboration with clients, families and other mental health practitioners on medication-related issues are provided. A complementary focus will include the impact on people of color in the Diaspora from the Black Perspective.
Credits: 3

Social Work Field Instruction

SWFI-201: Field Education I

(Foundation course) First of four required Field Education courses in regular sixty (60) hour degree program. Focuses on integration of foundation knowledge and practice skills for beginning generalist practice. Requires completion of 233 clock hours, including ten (10) hours for Field Education orientation, 208 hours in assigned Field Education agency setting, and 15 hours in scheduled Field Education integrative seminars.
Credits: 3

SWFI-202: Field Education II

(Differential Foundation course) Second of four required Field Education courses in regular sixty (60) hour degree program. First of three Field Education courses in Advanced Standing program. Focuses on integration of differential foundation knowledge and practice skills. Requires completion of 223 clock hours, for regular students, including 208 hours in assigned Field Education agency and 15 hours in scheduled Field Education integrative seminars. Requires 233 clock hours for advanced standing students, including 10 hours for Field Education orientation, 208 hours in assigned Field Education agency, and 15 hours for scheduled Field Education integrative seminars.
Credits: 3

Prerequisites:

SWFI-201.

SWFI-336: Field Education III

(Advanced course) Third of four required field Education courses in regular sixty (60) hour degree program. Second of three required courses in advanced standing program. Focuses on integration of advanced knowledge and practice skills in chosen Practice Method concentration and Field of practice specialization. Requires completion of 272 clock hours, including 260 hours in assigned Field Education agency setting, and 12 hours in scheduled Field Education integrative seminars.
Credits: 3

Prerequisites:

SWFI-202.

SWFI-337: Field Education IV

(Advanced course) Fourth of four required Field Education courses in regular sixty (60) hour degree program. Third of three required courses in Advanced Standing program. Focuses on integration of advanced knowledge and practice skills in chosen Practice Method concentration and Field of practice specialization. Requires 272 clock hours, including 260 hours in assigned Field Education agency setting, and 12 hours in scheduled Field Education integrative seminars.
Credits: 3

Prerequisites:

SWFI-336.

Social Work Ph.D. Program

SWDS-101: Social Work with Individuals, Families & Groups

Focuses on the foundation of social work practice and processes from a generalist practice framework. Emphasis is placed on the introduction of social work knowledge, ethics, and values, promotion of social and economic justice, eco-systems, cultural competence, the problem-solving process, and development of the client/consumer-worker relationship. Explores the relevance of practice-informed research and research-informed practice in working with diverse individuals, families, and groups.
Credits: 3

SWDS-306: Direct Practice Assessment

Deepens understanding of concepts and principles introduced in SWDS 100, with emphasis on the assessment phase of the problem-solving process in direct practice. Field education experiences and theoretical concepts are integrated with focus on understanding and application of interviewing skills, values and ethics, ecological and strengths-based approaches, and goal setting and termination. Interventional strategies dealing with individuals and families are introduced in addition to selected knowledge from small group practice.
Credits: 3

SWFI-204: Agency-Based Education I

First of four required Agency-Based Education courses in regular 60-hour degree program. Focuses on integration of foundation knowledge and practice skills for beginning generalist practice. Requires completion of 233 clock hours, including 10 hours for Agency-Based Education orientation, 208 hours in assigned Agency-Based Education agency setting, and 15 hours in scheduled Agency-Based Education integrative seminars.
Credits: 3

SWFI-205: Agency-Based Education II

Second of four required Agency-Based Education courses in regular 60- hour degree program. First of three Agency-Based Education courses in Advanced Standing program. Focuses on integration of differential foundation knowledge and practice skills. Requires completion of 223 clock hours, for regular students, including 208 hours in assigned Agency-Based Education agency and 15 hours in scheduled Agency-Based Education integrative seminars. Requires 233 clock hours for advanced standing students, including 10 hours for Agency-Based Education orientation, 208 hours in assigned Agency-Based Education agency, and 15 hours for scheduled Agency-Based Education integrative seminars.
Credits: 3

SWFI-338: Agency-Based Education III

Third of four required Agency-Based Education courses in regular 60-hour degree program. Second of three required courses in advanced standing program. Focuses on integration of advanced knowledge and practice skills in chosen Practice Method concentration and Agency-Based of practice specialization. Requires completion of 272 clock hours, including 260 hours in assigned Agency-Based Education agency setting, and 12 hours in scheduled Agency-Based Education integrative seminars.
Credits: 3

SWFI-339: Agency-Based Education IV

Fourth of four required Agency-Based Education courses in regular 60-hour degree program. Third of three required courses in Advanced Standing program. Focuses on integration of advanced knowledge and practice skills in chosen Practice Method concentration and Agency-Based of practice specialization. Requires 272 clock hours, including 260 hours in assigned Agency-Based Education agency setting, and 12 hours in scheduled Agency-Based Education integrative seminars.
Credits: 3

SWPH-378: Black Family Theory

Focuses on historical, social, cultural, political, economic and global conditions that have affected that institution. The course discusses key issues, themes and debates in the field and analyzes a variety of theoretical perspectives of examining the African-American family life.
Credits: 3

SWPH-407: Hist & Phil of Soc Welfare

Examines the development of social welfare in the United States, including the evolution of social welfare from the Colonial Period to the present and its social, historical and economic impact. Examines the factors that contribute to the knowledge base, practice models and social contexts. Considers a welfare system's relevance to a modern industrial society with highlights on the contributions of African-Americans and women.
Credits: 3

SWPH-500: Overview of Res Methods

Reviews the fundamentals of scientific methods. Familiarizes students with quantitative and qualitative research methods; research design and measurement; instrument development, validity and reliability; principles and types of sampling; essentials of program evaluation; demographic and secondary data analysis; and practicum in survey research.
Credits: 3

SWPH-501: Quantitative Methodology

This is the first of two required courses on statistical methods for social work doctoral students. The course examines several content areas related to quantitative data analysis. These include (a) Basic research and methodological terms; (b) Working with SPSS software; (c) Descriptive statistics; (d) Normal and skewed distributions; (e) Steps in hypothesis testing; (f) Inferential statistics including parametric and non-parametric tests; (h) Bivariate statistical tests; and (i) presentation, interpretation, and reporting of statistical findings.
Credits: 3

SWPH-503: Applied Methodology

This is the second required course on statistics for doctoral students. It builds on Quantitative Methods. It furthers students' acquaintance with social work and social sciences statistical techniques and provides additional analytical skills necessary to assess the validity of the research literature. The course examines several content areas related to advanced statistics including (a) sample power and sample size; (b) simple, multiple, and logistic regression analyses, (c) two-way analysis of variance and covariance, (d) repeated measures analysis of variance, (e) multivariate analysis of variance and covariance and; (f) canonical correlation analysis.

Credits: 3

SWPH-504: Family Theory and Research

This course will take an in-depth look at various family theories, including the following: ... Understand the relationship between theory and research.
Credits: 3

SWPH-506: Research Design

Enables students to develop skills in designing and implementing research projects on problems and issues related to social work. Students will design a research project and select statistical procedures appropriate for the design. The resulting research proposal will address social work, theoretical and practice issues in the student's special area of interest, usually related, but not limited, to people of color.
Credits: 3

SWPH-603: Proseminar - The Individual

Focuses on theories and conceptual approaches used as the knowledge base for social work practice with individuals. Theories covered draw from biological, psychological, sociological, and cultural perspectives. Emphasis given to enhancing the student's reasoning repertoire with respect to articulating a rationale for selecting a theoretical perspective for a social work purpose. Critical variables related to social work theory identified, assumptions assessed, values examined, and empirical evidence analyzed. With an interest in developing the theoretical knowledge base of social work practice with individuals, especially people of color, emphasis is placed on integrating selected and related constructs, e.g., empowerment and world views, into theory and knowledge for ethnically sensitive and culturally competent practice.
Credits: 3

SWPH-604: Proseminar - Small Groups

This seminar focuses on the theories, conceptual approaches, and methodologies that form the knowledge base of social work practice with groups. Emphasis is placed on the significant social science theories and models, such as, group dynamics, role and system theory, social group work theories, and organizational development that underpin the state of the practice art. Concepts of leadership and followership and the impact on group processes will be explored from an applied perspective.
Credits: 3

SWPH-605: Proseminar - Communities & Organizations

Examines communities and organizations as a level of intervention for solving social problems, with emphasis on analyses of existing theory, research, and models. Special attention paid to issues of concern to African Americans. Implications for other minorities and for women also examined.
Credits: 3

SWPH-606: Proseminar - Social Work Education

Introduces students to contemporary features of American social work education. Special emphasis given to Black perspectives in social work education. Attention provided to women's issues and issues relevant to other diverse and frequently oppressed populations. Includes the structure of the educational system, aspects of the learning-teaching process, issues of curriculum and accreditation, recent research about social work education, and the place of social work education in higher education.
Credits: 3

SWPH-700: Independent Study I

Study under guidance of a faculty member with special competence in an area.
Credits: 1

SWPH-701: Independent Study II

Study under guidance of a faculty member with special competence in an area.

Credits: 2

SWPH-702: Independent Study III

Study under guidance of a faculty member with special competence in an area.
Credits: 3

SWPH-706: Social Policy and Mental Hlth

This course will include consideration of individual rights, especially the rights of populations at risk, rights regarding civil commitment and treatment, professional roles vis.-a-vis. Consumer rights, and consumer advocacy. Attention will be given to persons with mental illness, developmental disabilities, learning disabilities and substance abuse disorders-or combinations of these conditions-with special focus on individuals with severe and persistent mental conditions. U.S. mental health policy will be examined as it is enacted in programs and services, social entitlements, financing arrangements, and organizational missions. Ethical and value dilemmas connected to these topics will be examined within an American as well as comparative historical and cultural context. The major focus of this course will be on public policies and services, with an ongoing examination of the relationships of this public domain to the non-profit and for-profit sector. Special consideration will be given to how the contemporary mental health system relates to and is experienced by economically disadvantaged persons, women, transgendered, lesbian, bisexual, gay, and queer persons, and persons of color.
Credits: 3

SWPH-708: Contemporary Mental Health Issues

Students learn about mental health disorders, counseling theories, human development, substance abuse counseling and family counseling.
Credits: 3

SWPH-807: Dissertation

Extended, written and approved treatment of subject submitted for doctorate degree.
Credits: 1

SWPH-808: Dissertation

Extended, written and approved treatment of subject submitted for doctorate degree.
Credits: 2

SWPS-215: Social Work & the Black Perspective

Provides the history, mission, philosophy, and evolution of social welfare policies and services that form the foundation of social welfare, specifically in relation to poverty, racism, and the needs of oppressed and marginalized populations from both a strengths and Black perspective using social policy frameworks and social work values and ethics. Examines African American and other social welfare pioneer exemplars, their efforts to influence and change social welfare policy and services, and their influence on contemporary programs and services in select Fields of Practice.
Credits: 3

SWPS-216: Advocating for Oppressed & Marginalized Communities

Builds on content in SWPS-215 by promoting understanding of and competence in application of policy frameworks for analysis, formulation, advocacy, use of policy research through assessing context, intent, process, and the impact of organizational, executive, legislative, and judicial decisions to advanced social and economic justice. Examines use of diverse strategies to create planned change in organizations and larger social systems for direct, community, administration, and policy practice.
Credits: 3

SWRS-204: Research Methods & Data Analysis

Provides knowledge and understanding of research as a scientific process including methodology, formulation of research problem, sampling, measurement, and data collection procedures. Enhances analytical skills necessary to assess the validity of research literature. Introduces students to statistical skills and procedures, which can be used to enhance assessment, planning, execution, and evaluation of interventions in social work practice. Students must also enroll in a one-hour Research Lab that provides them with the opportunity to gain hands-on literature review search and computer software such as SPSS that will be used in the classroom.
Credits: 3

Social Work Research

SWRS-201: Research Methods in Social Work

This graduate course aims to provide students with an understanding of advanced research designs, data collection techniques, and analyses methods commonly used in public health and social science investigations. Students will be introduced to quantitative, qualitative, and mixed methods research approaches. Topics will include ethical consideration in data collections and reporting, sampling methods, sample size consideration, secondary data analyses, and metaanalyses. Students will gain skills in the design and rigor of proposal development and manuscript preparation. Lectures will be built through a mix of texts, public health literature, and course work, and students will build skills for conducting research and evaluation.
Credits: 3

SWRS-202: Data Analysis for Social Workers

This course builds on Research Methods I (SWRS-201) enabling students to become better acquainted with how to evaluate practice. Enhances analytical skills necessary to assess the validity of research literature. Content areas related to quantitative data analysis include social work research code of ethics, use of SPSS and preparation of data for entry into SPSS, descriptive statistics, types of distributions, steps in hypothesis testing, inferential statistics, guidelines for test selection, bivariate and multivariate statistical techniques, analysis of qualitative data, and presentation, interpretation and reporting of findings.
Credits: 3

SWRS-305: Practice Evaluation

(Advanced Course) Builds on knowledge and skills of the core research courses, "Research Methods for Social Workers" and "Data Analysis for Social Workers." Course content provides advanced-level knowledge and skills that prepare students to develop, use, critically assess, and effectively communicate empirically-based knowledge in developing and evaluating practice and human service programs. It develops skills in using key evaluative methods that measure the need, effectiveness, fairness, and efficiency of various interventions in achieving stated objectives and desired outcomes for various stakeholders with particular focus on at risk populations design and conduct evidenced-based interventions appropriate for their method of practice and specialized field of practice.
Credits: 3

Prerequisites:

SWRS-202. [Required for all students.]

SWRS-308: Integrative Research Seminar

(Research Elective) Preparation of a scholarly research paper on a topic related to the concentration of the student which integrates research knowledge of social work practice, human behavior and the social environment, and social welfare policy and services.
Credits: 3

Prerequisites:

SWRS-202.

Social Work Seminar

SWSM-302: Independent Study I

Study under the guidance of a faculty member with special competence in an area of interest.
Credits: 3

SWSM-303: Independent Study II

Study under the guidance of a faculty member with special competence in an area of interest.
Credits: 2

SWSM-304: Independent Study III

Study under the guidance of a faculty member with special competence in an area of interest.
Credits: 2

SWSM-305: Independent Study IV

Study under the guidance of a faculty member with special competence in an area of interest.
Credits: 2

SWSM-306: Independent Study V

Study under the guidance of a faculty member with special competence in an area of interest.
Credits: 3

SWSM-307: Independent Study VI

Study under the guidance of a faculty member with special competence in an area of interest.
Credits: 3

Society Culture and Religion

SCRL-205: Psychology of Religion

Treats psychological factors in religious experience, with special reference to their significance in the phenomena of conversion, revivals, mysticism, personality structure, and social action.
Credits: 3

SCRL-220: World Religions

Analysis of concepts and practices in the non-Christian religions, treating each religion in terms of its ideals, ethics, world view, or theology, and contributions by great leaders.
Credits: 3

SCRL-228: Theories & Methods in Religious Studies

This course will engage the more prominent theories that have emerged since the Enlightenment that have attempted to explain religious phenomenon in rational terms. These include models rooted in social, psychological, economic, political, orientalist, structuralist, post-modern and post-colonial explanatory paradigms. The course will engage in methodological issues central to the field of Religious Studies stemming from these approaches.
Credits: 3

Sociology

SOCI-199: Environmental Inequity

The course presents research on distributions of environmental quality and health, enforcement of regulations, access to resources to respond to urban and industrial problems, and the broader political economy of decision-making around environmental and health issues.
Credits: 3

SOCI-219: Advanced Statistics I

Focus on the application of multi variate statistical methods to social data, employing casual and factor analysis, and techniques for cross-tabulated data, including logic analysis.
Credits: 3

SOCI-250: Social Stratification

Individual reading assignments on special topics in social stratification and political sociology, based on student interests and needs, under supervision of a faculty member. See page 577 for additional information related to Special Topics courses.
Credits: 3

SOCI-251: Sociology of Poverty

Examines the underlying causes and the social, psychological, and political consequences of poverty; the socioeconomic characteristics and family life of the poor; and the community services and programs designed to alleviate poverty.
Credits: 3

SOCI-276: Victimology

Examination of the offender-victim relationships as a causative factor in crime.
Credits: 3

SOCI-283: Intro. to Medical Sociology

Overview of the development of social medicine and the sociology of medicine, examining major areas of activity in medical sociology. Distinction is made between sociology of medicine and sociology in medicine, with concentration on the former.
Credits: 3

SOCI-284: Mental Health

Deals with sociological theories and the etiology of mental disorders; research on social epidemiology and ecology; the impact of social structure; popular conceptions of mental health and deviance; and emerging ideologies of mental disciplines
Credits: 3

SOCI-286: Death and Dying

Reviews research and theory relating to attitudes and behavior relating to death and dying
Credits: 3

SOCI-300: Sociology Theory I

Survey of early social theories and examination of theoretical contributions of the nineteenth-century sociologists.
Credits: 3

SOCI-301: Sociology Theory II

Continuation of SOCI-300, with concentration on early twentieth century and contemporary sociological theorists.

Credits: 3

SOCI-310: Sociological Research I

Present-day methods of research in sociology, with emphasis on quantitative methods.
Credits: 3

SOCI-311: Sociological Research II

A continuation of SOCI-310. Present-day methods of research in sociology, with emphasis on quantitative methods.
Credits: 3

SOCI-312: Global Health

The course presents research on distributions of environmental quality and health, enforcement of regulations, access to resources to respond to urban and industrial problems, and the broader political economy of decision-making around environmental and health issues.
Credits: 3

SOCI-319: Advanced Statistics I

Focus on the application of multi variate statistical methods to social data, employing casual and factor analysis, and techniques for cross-tabulated data, including logic analysis.
Credits: 3

Prerequisites:

025-219

SOCI-370: Criminological Theory

Emphasis on presentative theories of the structural, symbolic interactionist, culture-conflict, and personality perspectives.
Credits: 3

SOCI-386: Social Epidemiology

Examination of the social etiology of illness, disease, and health; identifies basic concepts; and analyzes social class and ethnicity in social epidemiology
Credits: 3

SOCI-392: Perspectives in Sociology

Examination of major issues in sociology, with emphasis on the discussion of these as they relate to theoretical problems and challenges in the field.
Credits: 3

SOCI-460: Analysis of Race Relations I

Critical analysis of the past and present theoretical approaches to the study of race relations, with emphasis on adequacy in accounting for changes in race relations at the psychological, sociopsychological, and sociological levels.
Credits: 3

SOCI-461: Analysis of Race Relations II

A continuation of SOCI-460. Critical analysis of the past and present theoretical approaches to the study of race relations, with emphasis on adequacy in accounting for changes in race relations at the psychological, sociopsychological, and sociological levels.
Credits: 3

SOCI-471: Race, Ethnicity, and Crime

Analysis of race and ethnicity as social factors in the study of crime.
Credits: 3

SOCI-484: Health Services Research

Overview of health services research, approaches to health services research, application of research findings, and research ability in selected areas.
Credits: 3

Prerequisites:

SOCI 311, SOCI 283, or the equivalent.

SOCI-485: Health Services Research II

Overview of health services research, approaches to health services research, application of research findings, and research ability in selected areas.
Credits: 3

Prerequisites:

SOCI 311, SOCI 283, or the equivalent.

SOCI-670: Seminar: Research in Crime and Deviance

Review of current issues in the study of crime and deviance.
Credits: 3

SOCI-753: PhD Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D
Credits: 1

SOCI-891: Independent Research

The purpose of this course is for the design and performance of research leading to a Masters. Degree.
Credits: 3

SOCI-970: Readings in Social Control and Deviance

Individual reading assignments on special topics in social control and deviance, based on student interests and needs, under supervision of a faculty member.
Credits: 3

SOCI-982: Readings in Medical Sociology I

Individual reading assignments on special topics in medical sociology, based on student interests and needs, under supervision of a faculty members.
Credits: 3

SOCI-983: Readings in Medical Sociology II

A continuation of SOCI-982. Individual reading assignments on special topics in medical sociology, based on student interests and needs, under supervision of a faculty members.
Credits: 3

SOCI-984: PhD Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D
Credits: 1

SOCI-985: PhD Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D
Credits: 3

SOCI-988: Independent Research

The purpose of this course is for the design and performance of research leading to a Masters Degree.
Credits: 3

SOCI-989: PhD Dissertation Research

The purpose of this course is for the design and performance of research leading to a Ph.D
Credits: 3

SOCI-995: MA Thesis

Thesis guidance for M.A. students.
Credits: 3

SOCI-996: MA Thesis

Thesis guidance for M.A. students.
Credits: 3

SOCI-998: PhD Dissertation

Dissertation guidance for doctoral students
Credits: 3

SOCI-999: PhD Dissertation

Dissertation guidance for doctoral students
Credits: 3

String Bass

MUSN-100: String Bass Instruction

Private lessons to non-music major. Permission of coordinator/instructor required. Course can be repeated.
Credits: 1

MUSN-111: String Bass Minor

Covers Simandle's Book 1; Marcello's Sonata in D Minor; The Progressive Bowing Variations; The Melodious Bass; Bowing Variations; and three Beethoven symphonies.
Credits: 2

MUSN-112: String Bass Minor

Covers Simandle's Book 1; Marcello's Sonata in D Minor; The Progressive Bowing Variations; The Melodious Bass; Bowing Variations; and three Beethoven symphonies.
Credits: 2

MUSN-121: String Bass Minor

Includes Bille Nos. 263 and 264, Nanny Vingt Quartre Pieces, and orchestra studies.
Credits: 2

Prerequisites:

MUSN-111, 112, or consent of instructor.

MUSN-122: String Bass Minor

Includes Bille Nos. 263 and 264, Nanny Vingt Quartre Pieces, and orchestra studies.
Credits: 2

Prerequisites:

MUSN-111, 112, or consent of instructor.

MUSN-131: String Bass Minor

Treats Bille Nos. 262 and 303, Handel's Sonata in G Minor, orchestra studies, and Galliard's Sonata in F Major. **Credits:** 2

Prerequisites:

MUSN-121, 122, or consent of instructor.

MUSN-132: String Bass Minor

Treats Bille Nos. 262 and 303, Handel's Sonata in G Minor, orchestra studies, and Galliard's Sonata in F Major.
Credits: 2

Prerequisites:

MUSN-121, 122, or consent of instructor.

MUSN-141: String Bass Minor

Instruction in Bille No. 303; Nanny's Kreutzer Etudes; Koussevitzky's Chanson Triste and Valse Miniature, orchestra studies, and recital preparation.
Credits: 2

Prerequisites:

MUSN-131, 132, or consent of instructor.

MUSN-142: String Bass Minor

Instruction in Bille No. 303; Nanny's Kreutzer Etudes; Koussevitzky's Chanson Triste and Valse Miniature, orchestra studies, and recital preparation.
Credits: 2

Prerequisites:

MUSN-131, 132, or consent of instructor.

MUSN-211: String Bass Major

Deals with major and minor scales and arpeggios, along with etudes and solos in all styles.
Credits: 4

MUSN-212: String Bass Major

Deals with major and minor scales and arpeggios, along with etudes and solos in all styles.
Credits: 4

MUSN-221: String Bass Major
Continuation of MUSN-211, and 212.
Credits: 4

Prerequisites:

MUSN-211, 212, or consent of instructor.

MUSN-222: String Bass Major
Continuation of MUSN-211, and 212.
Credits: 4

Prerequisites:

MUSN-211, 212, or consent of instructor.

MUSN-241: String Bass Major
Continuation of MUSN-231, 232.
Credits: 4

Prerequisites:

MUSN-231, 232, or consent of instructor.

MUSN-242: String Bass Major

Continuation of MUSN-231, 232.

Credits: 4

Prerequisites:

MUSN-231, 232, or consent of instructor.

MUSN-301: Graduate String Bass Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSN-302: Graduate String Bass Minor II

A continuation of MUSN-301. This course builds upon string bass performance techniques.
Credits: 3

MUSN-303: Graduate String Bass Minor III

A continuation of MUSN-302. This course builds upon string bass performance techniques.
Credits: 3

MUSN-304: Graduate String Bass Minor IV

A continuation of MUSN-303. This course builds upon v string bass performance techniques.
Credits: 3

MUSN-311: Graduate String Bass Major I

Private instruction in performance for graduate students.
Credits: 5

MUSN-312: Graduate String Bass Major II

Private instruction in performance for graduate students.
Credits: 5

MUSN-321: Graduate String Bass Major III

Private instruction in performance for graduate students.
Credits: 5

MUSN-322: Graduate String Bass Major IV

Private instruction in performance for graduate students.
Credits: 5

MUSN 231: String Bass Major
Continuation of MUSN-221, 222.
Credits: 4

Prerequisites:

MUSN-221, 222, or consent of instructor.

MUSN 232: String Bass Major
Continuation of MUSN-221, 222.
Credits: 4

Prerequisites:

MUSN-221, 222, or consent of instructor.

String Ensemble

MUTB-131: String Ensemble V

Students will be assigned with string works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.

Credits: 1

MUTB-132: String Ensemble VI

A continuation of MUTB-131. Weekly coaching and rehearsals in small string ensembles.
Credits: 1

MUTB-141: String Ensemble VII

A continuation of MUTB-132. Weekly coaching and rehearsals in small string ensembles.
Credits: 1

MUTB-142: String Ensemble VIII

A continuation of MUTB-141. Weekly coaching and rehearsals in small string ensembles.
Credits: 1

Student Recital

MUTO-311: Graduate Qualifying Recital

A 30- to 40-minute qualifying recital in the second semester of the sophomore year, required of students who desire certification for upper-level study as Applied Music majors.
Credits: 0

MUTO-312: Graduate Recital

A solo recital, of at least one hour in length, required of all graduating seniors in applied music.
Credits: 0

Studies in Ministry

STMI-210: Church Leadership and Administration

Explores the duties of the pastor, the nature of church administration, roles of leadership within the organizational pattern of the church, voluntary associations, community relations, and community image.
Credits: 3

STMI-213: Preaching

This is an introductory course in the fundamentals of preaching and the development of the sermon
Credits: 3

STMI-221: Pastoral Care: Introduction

The principles of health policy and management will be discussed as they apply to public health agencies and organizations
Credits: 3

STMI-230: Education or Minister as Educator

This course explores the role and responsibilities of the minister in teaching religious beliefs and enabling faith-based practices. Attention is given to ministerial identity, select teaching methodologies, and socio-political contexts upon faith formation and praxis.
Credits: 3

STMI-321: Prophetic Ministry

Theological Field Education is the art of incorporating faith, action, and reflection in preparation for ministry. Contextual learning occurs in field sites such as faith communities or agencies where ministry takes place. Activities and interactions at the field site become the principal sources of reflection and learning. Supplementary formal instruction, classroom peer interaction, and oral/written reflections should be expected.

Credits: 3

STMI-345: Field Education I

Theological Field Education is the art of incorporating faith, action, and reflection in preparation for ministry. Contextual learning occurs in field sites such as faith communities or agencies where ministry takes place. Activities and interactions at the field site become the principal sources of reflection and learning. Supplementary formal instruction, classroom peer interaction, and oral/written reflections should be expected.

Credits: 3

STMI-363: The Organ: Instrument of Worship

An introduction to the historical, theological and biblical foundations of the use of the organ as sacred music in worship.

Credits: 3

STMI-370: Liturgy: Intro Church and Worship

Examines the theology, terminology, development, organization and practice of church music and worship.

Credits: 3

STMI-413: Worship in Pent. Traditions

This course offers a fresh, constructive and perhaps even controversial interpretation and reenvisioning of the Pentecostal tradition.

Credits: 3

STMI-505: D.Min. Seminar I

This Seminar is primarily intended for students pursuing the Doctor of Ministry degree. It is designed to cultivate and foster an in-depth analysis of modern theological expressions of the traditional Christian doctrines, with special attention to the contextual framework out of which such expressions emerge. It seeks to further the theological task of doctoral candidates in the quest for their own tools in the theological enterprise, as well as their search for an appropriate identity in the global community of contemporary theologians and other professional practitioners of religion. Intensive reading, extensive research, and comprehensive reflection and dialogue will be the major process in this Seminar. The specific area of study for this Seminar will be The Essential Mission Of The Church Today - the theological and ethical implications for the Christian life and conduct, as well as the distinctive categories for prophetic witness and social advocacy today.

Credits: 3

STMI-506: D.Min. Seminar II

A continuation of STMI-505. This Seminar is primarily intended for students pursuing the Doctor of Ministry degree. It is designed to cultivate and foster an in-depth analysis of modern theological expressions of the traditional Christian doctrines, with special attention to the contextual framework out of which such expressions emerge. It seeks to further the theological task of doctoral candidates in the quest for their own tools in the theological enterprise, as well as their search for an appropriate identity in the global community of contemporary theologians and other professional practitioners of religion. Intensive reading, extensive research, and comprehensive reflection and dialogue will be the major process in this Seminar. The specific area of study for this Seminar will be The Essential Mission Of The Church Today - the theological and ethical implications for the Christian life and conduct, as well as the distinctive categories for prophetic witness and social advocacy today.

Credits: 3

STMI-507: D.Min. Seminar III

A continuation of STMI-505. This Seminar is primarily intended for students pursuing the Doctor of Ministry degree. It is designed to cultivate and foster an in-depth analysis of modern theological expressions of the traditional Christian doctrines, with special attention to the contextual framework out of which such expressions emerge. It seeks to further the theological task of doctoral candidates in the quest for their own tools in the theological enterprise, as well as their search for an appropriate identity in the global community of contemporary theologians and other professional practitioners of religion. Intensive reading, extensive research, and comprehensive reflection and dialogue will be the major process in this Seminar. The specific area of study for this Seminar will be The Essential Mission Of The Church Today - the theological and ethical implications for the Christian life and conduct, as well as the distinctive categories for prophetic witness and social advocacy today.

Credits: 3

STMI-522: Professional Ministry

Focuses on the minister's needs in preparing and maintaining a high quality of ministry. Issues treated are: (1) congregational nurture and care and recognizing the dynamics of the institutional setting; (2) conflict management; (3) the care and nurture of the minister and his family; (4) personal and professional assessment; (5) deepening of one's spiritual resources; and (6) life development issues.

Credits: 3

Supply Chain Management (GR)

GSCM-501: Procurement Management

his course discusses the opportunities and challenges surrounding management of procuring the right product or service in the right quantity with the right quality/reliability from the right source at the right time for the right price. It provides an introduction and overview of procurement and its role in commercial enterprises and governmental entities. The procurement course also incorporates "hands-on" assignments using on-line e-sourcing processes and tools. Current innovations in the procurement field are incorporated into the course and emerging challenges/issues are highlighted to provide students with an upto- date view of the profession. The course uses procurement textbook material, websites, articles, white papers, relevant cases and current news (e.g., Wall Street Journal) throughout course discussions. Students participate in local chapters of the Institute for Supply Management (ISM NCAR) and APICS. Guest speakers make presentations that provide insights on current topics and general global supply chain procurement issues.

Credits: 3

Surgery

MSUX-416: Senior Surgery

Provides senior medical students an in-depth experience in general surgery and a surgical specialty
Credits: 4

Theological Studies

FDSM-213: Spiritual Formation and Min. Leadership

This course invites Master of Divinity students into an intentional process of spiritual discipline and introspection, personal faith development, and vocational discernment. Students explore the rich tradition of spiritual exercises, including prayer, Bible study, and meditation, in order to develop a program which best suits his or her individual needs, calling, and personality. Students will explore various ministry models, share their generational and vocational perspectives, and critically engage in dialogue about re-inventing and reforming models of ministry and leadership.. Weekly sessions will be comprised of lectures, guest presentations, discussion, audiovisual presentations, and workgroup presentations.
Credits: 3

FDSM-220: Intro to Theological Writing

This course introduces incoming Divinity School students to research and writing skills on a graduate-level. The course distinguishes between personal voice writing, sermonic writing, and academic writing. The course gives primacy to academic writing with specific attention to hermeneutics and theological/religious-related research; proper use and citation of sources; plagiarism and inclusive writing guidelines; grammar and syntax; and, the Turabian style manual for graduate courses in religion.
Credits: 3

FDSM-465: Senior Coloquy

Senior Colloquy provides M.Div. students the opportunity to reflect upon the role of culture/scholarship and the efficacy of the Black Church in addressing issues facing the black community in the current socio-political season. Attention is given also to self-care (e.g. work/life balance) and self-promotion (e.g. resume-writing and job interviewing).
Credits: 3

THEO-221: History and Philosophy of Religious

This course is an introduction to the discipline and method of philosophy and the relationship of philosophy to the study of religion. Through a reading of classical and contemporary sources, the course examines definitions of religion and issues such as God's existence, attributes, and relationship to and action in the physical world, the nature and significance of religious experience and its potential as a medium for truth and knowledge, the problem of evil, humans as persons having minds and souls, life after death, the relation of religion to morality, and the relationship of religion to science.
Credits: 3

THEO-305: Systematic Theology I

This Course seeks to pursue several main objectives: To acquaint students with the discipline of theology through select readings of classical and contemporary texts; and to examine some issues and foundations of Christian thought, in addition to the rational structure and methods of interpretation that characterize the field of theology.
Credits: 3

THEO-310: Systemic Theology II

This Course will pursue further the basic objectives outlined in SYSTEMATIC THEOLOGY I, which will normally serve as a prerequisite. The various theological perspectives on the doctrines of the Christian faith will be treated critically and systematically. Major doctrines (or themes) will include God, Jesus Christ, Holy Spirit, Theological Anthropology, Sin and Salvation, Church, Sacraments, Mission, Ministry, Eschatology, Religious Belief and the Natural Sciences. Students will also be required to write a Credo Paper, based on their presumed mastery of the theological sources and methodology.

Credits: 3

THEO-315: Black Theology

This course is a study of contemporary black theology in the United States. The course examines the history, methodology, and systematic construction of black theology. Critical assessments of black theology and alternative models for the theological interpretation of African American religion will be examined.

Credits: 3

THEO-340: Theology of MLK

This course treats Martin Luther King, Jr., as a theologian, evaluating his understanding of Christian doctrines and contribution to systematic theology and theological ethics.

Credits: 3

Prerequisites:

one course in Systematic Theology, Black Theology, or Black Church History.

THEO-535: Doctoral Studies in Theology

This seminar, primarily intended for students pursuing the Doctor of Ministry degree, is designed to cultivate and foster an in-depth analysis of modern theological expressions of some traditional Christian doctrines with expressions of some traditional Christian doctrines, with special attention to the contextual framework out of which such expressions emerge.

Credits: 3

Thesis

THES-375: M.A. Colloquy

The MARS Colloquy includes contemporary readings in religious and theological studies. Research and writing methodologies will be emphasized to enable students to develop their MARS thesis research proposals. Students will prepare and present seminar papers in class based upon these proposals. In consultation with students and potential faculty supervisors, the MARS colloquy leader will assign an appropriate thesis advisor to each student.

Credits: 3

THES-378: MA(RS) Thesis

Research and writing in the area of concentration is required of all students in the M.A. degree program. Working under faculty supervision, the student's thesis shall be an in-depth study of a given subject which reflects the use of sound research methodology, good critical judgment, clarity of expression, and proper form.

Credits: 3

THES-385: Thesis

Thesis guidance for MDiv. Students.

Credits: 3

THES-405: Field-Based Project

Under faculty supervision, the degree candidate is guided towards the completion of a plan for the ministry project.
Credits: 3

THES-500: D.Min. Project Prep I

Under faculty supervision, the degree candidate is guided towards the completion of an approved written work.
Credits: 1

THES-501: D.Min. Project Prep II

Under faculty supervision, the degree candidate is guided towards the completion of a plan for the ministry project.
Credits: 1

THES-502: D.Min. Project Prep III

Under faculty supervision, the degree candidate is guided towards the completion of a plan for the ministry project.
Credits: 1

THES-510: Doctor of Min. Research & Writing

This seminar introduces Doctor of Ministry students to processes and methods in the scholarship of ministry. The seminar provides an overview of the research process in ministry - from conceptualization to collection and analysis of data, interpretation and reflection on the findings discovered in research - and the scholarly presentation of these findings in written manuscript. The goal is to prepare students to compose quality ministry research proposals.
Credits: 3

Trombone

MUSU-100: Trombone Instruction
Private lessons to non-music major.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUSU-111: Trombone Minor

Includes major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSU-112: Trombone Minor

Includes major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSU-121: Trombone Minor
Continuation of MUSU-111, 112.
Credits: 2

Prerequisites:

MUSU-111, 112, or consent of instructor.

MUSU-122: Trombone Minor
Continuation of MUSU-111, 112.
Credits: 2

Prerequisites:

MUSU-111, 112, or consent of instructor.

MUSU-131: Trombone Minor
Continuation of MUSU-121, 122.
Credits: 2

Prerequisites:

MUSU-121, 122, or consent of instructor.

MUSU-132: Trombone Minor
Continuation of MUSU-121, 122.
Credits: 2

Prerequisites:

MUSU-121, 122, or consent of instructor.

MUSU-141: Trombone Minor

Continuation of MUSU-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSU-131, 132, or consent of instructor.

MUSU-142: Trombone Minor

Continuation of MUSU-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSU-131, 132, or consent of instructor.

MUSU-211: Trombone Major

Instruction in major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSU-212: Trombone Major

Instruction in major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSU-221: Trombone Major
Continuation of MUSU-211, 221.
Credits: 4

Prerequisites:

MUSU-211, 212, or consent of instructor.

MUSU-222: Trombone Major

Continuation of MUSU-211, 221.

Credits: 4

Prerequisites:

MUSU-211, 212, or consent of instructor.

MUSU-231: Trombone Major

Continuation of MUSU-221, 222.

Credits: 4

Prerequisites:

MUSU-221, 222, or consent of instructor.

MUSU-232: Trombone Major
Continuation of MUSU-221, 222.
Credits: 4

Prerequisites:

MUSU-221, 222, or consent of instructor.

MUSU-241: Trombone Major

Continuation of MUSU-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSU-231, 232, or consent of instructor.

MUSU-242: Trombone Major

Continuation of MUSU-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSU-231, 232, or consent of instructor.

MUSU-301: Graduate Trombone Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSU-302: Graduate Trombone Minor II

A continuation of MUSU-301. This course builds upon Trombone performance techniques.
Credits: 3

MUSU-303: Graduate Trombone Minor III

A continuation of MUSU-302. This course builds upon Trombone performance techniques.
Credits: 3

MUSU-304: Graduate Trombone Minor IV

A continuation of MUSU-303. This course builds upon Trombone performance techniques.
Credits: 3

MUSU-311: Graduate Trombone Major I

Private instruction in performance for graduate students.
Credits: 5

MUSU-312: Graduate Trombone Major II

Private instruction in performance for graduate students.
Credits: 5

MUSU-321: Graduate Trombone Major III

Private instruction in performance for graduate students.
Credits: 5

MUSU-322: Graduate Trombone Major IV

Private instruction in performance for graduate students.
Credits: 5

Trumpet

MUSS-100: Trumpet Instruction

Private lessons to non-music major. Course can be repeated.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUSS-111: Trumpet Minor

Instruction in major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSS-112: Trumpet Minor

Instruction in major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 2

MUSS-121: Trumpet Minor

Continuation of MUSS-111, 112.
Credits: 2

Prerequisites:

MUSS-111, 112, or consent of instructor.

MUSS-122: Trumpet Minor

Continuation of MUSS-111, 112.
Credits: 2

Prerequisites:

MUSS-111, 112, or consent of instructor.

MUSS-131: Trumpet Minor

Continuation of MUSS-121, 122.
Credits: 2

Prerequisites:

MUSS-121, 122, or consent of instructor.

MUSS-132: Trumpet Minor

Continuation of MUSS-121, 122.
Credits: 2

Prerequisites:

MUSS-121, 122, or consent of instructor.

MUSS-141: Trumpet Minor

Continuation of MUSS-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSS-131, 132, or consent of instructor.

MUSS-142: Trumpet Minor

Continuation of MUSS-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSS-131, 132, or consent of instructor.

MUSS-211: Trumpet Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSS-212: Trumpet Major

Includes major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSS-221: Trumpet Major

Continuation of MUSS-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSS-211, 212 or consent of instructor.

MUSS-222: Trumpet Major

Continuation of MUSS-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSS-211, 212 or consent of instructor.

MUSS-231: Trumpet Major
Continuation of MUSS-221, 222.
Credits: 4

Prerequisites:

MUSS-221, 222, or consent of instructor.

MUSS-232: Trumpet Major
Continuation of MUSS-221, 222.
Credits: 4

Prerequisites:

MUSS-221, 222, or consent of instructor.

MUSS-241: Trumpet Major

Continuation of MUSS-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSS-231, 232, or consent of instructor.

MUSS-242: Trumpet Major

Continuation of MUSS-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSS-231, 232, or consent of instructor.

MUSS-301: Graduate Trumpet Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSS-302: Graduate Trumpet Minor II

A continuation of MUSS-301. This course builds upon trumpet performance techniques.
Credits: 3

MUSS-303: Graduate Trumpet Minor III

A continuation of MUSS-302. This course builds upon trumpet performance techniques.
Credits: 3

MUSS-304: Graduate Trumpet Minor IV

A continuation of MUSS-303. This course builds upon trumpet performance techniques.
Credits: 3

MUSS-311: Graduate Trumpet Major I

Private instruction in performance for graduate students.
Credits: 5

MUSS-312: Graduate Trumpet Major II

Private instruction in performance for graduate students.
Credits: 5

MUSS-321: Graduate Trumpet Major III

Private instruction in performance for graduate students.
Credits: 5

MUSS-322: Graduate Trumpet Major IV

Private instruction in performance for graduate students.
Credits: 5

Tuba

MUSV-100: Tuba Instruction

Private lessons to non-music major. Instruction in major and minor scales and arpeggi, tone production, and etudes and solos in all styles.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUSV-111: Tuba Minor

Instruction in major.
Credits: 2

MUSV-112: Tuba Minor

Instruction in major.
Credits: 2

MUSV-121: Tuba Minor
Continuation of MUSV-111, 112.
Credits: 2

Prerequisites:

MUSV-111, 112, or consent of instructor.

MUSV-122: Tuba Minor

Continuation of MUSV-111, 112.

Credits: 2

Prerequisites:

MUSV-111, 112, or consent of instructor.

MUSV-131: Tuba Minor
Continuation of MUSV-121, 122.
Credits: 2

Prerequisites:

MUSV-121, 122, or consent of instructor.

MUSV-132: Tuba Minor
Continuation of MUSV-121, 122.
Credits: 2

Prerequisites:

MUSV-121, 122, or consent of instructor.

MUSV-141: Tuba Minor

Continuation of MUSV-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSV-131, 132, or consent of instructor.

MUSV-142: Tuba Minor

Continuation of MUSV-131, 132, with preparation for senior recital.
Credits: 2

Prerequisites:

MUSV-131, 132, or consent of instructor.

MUSV-211: Tuba Major

Consists of major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSV-212: Tuba Major

Consists of major and minor scales and arpeggi, along with etudes and solos in all styles.
Credits: 4

MUSV-221: Tuba Major

Continuation of MUSV-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSV-211, 212, or consent of instructor.

MUSV-222: Tuba Major

Continuation of MUSV-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSV-211, 212, or consent of instructor.

MUSV-231: Tuba Major

Continuation of MUSV-221, 222.

Credits: 4

Prerequisites:

MUSV-221, 222, or consent of instructor.

MUSV-232: Tuba Major

Continuation of MUSV-221, 222.

Credits: 4

Prerequisites:

MUSV-221, 222, or consent of instructor.

MUSV-241: Tuba Major

Continuation of MUSV-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSV-231, 232, or consent of instructor.

MUSV-242: Tuba Major

Continuation of MUSV-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSV-231, 232, or consent of instructor.

MUSV-301: Graduate Tuba Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSV-302: Graduate Tuba Minor II

A continuation of MUSV-301. This course builds upon Tuba performance techniques.
Credits: 3

MUSV-303: Graduate Tuba Minor III

A continuation of MUSV-302. This course builds upon Tuba performance techniques.
Credits: 3

MUSV-304: Graduate Tuba Minor IV

A continuation of MUSV-303. This course builds upon Tuba performance techniques.
Credits: 3

MUSV-311: Graduate Tuba Major I

Private instruction in performance for graduate students.
Credits: 5

MUSV-312: Graduate Tuba Major II

Private instruction in performance for graduate students.
Credits: 5

MUSV-321: Graduate Tuba Major III

Private instruction in performance for graduate students.
Credits: 5

MUSV-322: Graduate Tuba Major IV

Private instruction in performance for graduate students.
Credits: 5

University Choir

MUTL-311: Graduate University Choir I

This is a one-hour credit course intended to develop the skill, knowledge, and attitudes to perform the range of musical styles and genre written for the concert choir ensemble. The choir class is intended to help develop each singer's vocal ability in a positive environment as well as to present quality performances with a high level of musicianship.

Credits: 1

MUTL-312: Graduate University Choir II

A continuation of MUTL-311. This is a one-hour credit course intended to develop the skill, knowledge, and attitudes to perform the range of musical styles and genre written for the concert choir ensemble. The choir class is intended to help develop each singer's vocal ability in a positive environment as well as to present quality performances with a high level of musicianship.
Credits: 1

Viola

MUTQ-100: Viola Instruction

Private lessons to non-music major. Course can be repeated.
Credits: 1

Prerequisites:

Permission of coordinator/instructor required.

MUTQ-111: Viola Minor

Study of scales and arpeggios in two octaves; etudes, sonatas, and concerti; and solo repertoire of the difficulty comparable to Masas' Opus 36 Etudes and Eccles' Sonata in G Minor.
Credits: 2

MUTQ-112: Viola Minor

Study of scales and arpeggios in two octaves; etudes, sonatas, and concerti; and solo repertoire of the difficulty comparable to Masas' Opus 36 Etudes and Eccles' Sonata in G Minor.
Credits: 2

MUTQ-121: Viola Minor

Includes scales, arpeggios, double-stopping, and development of bow techniques.
Credits: 2

Prerequisites:

MUTQ-111, 112, or consent of instructor.

MUTQ-122: Viola Minor

Includes scales, arpeggios, double-stopping, and development of bow techniques.
Credits: 2

Prerequisites:

MUTQ-111, 112, or consent of instructor.

MUTQ-131: Viola Minor

Continuation of technical studies with classical solo compositions.
Credits: 2

Prerequisites:

MUTQ-121, 122, or consent of instructor.

MUTQ-132: Viola Minor

Continuation of technical studies with classical solo compositions.

Credits: 2

Prerequisites:

MUTQ-121, 122, or consent of instructor.

MUTQ-141: Viola Minor

Study of scales and broken chords in three octaves through the seventh position, technical studies, etudes, and preparation for senior recital.
Credits: 2

Prerequisites:

MUTQ-131, 132, or consent of instructor.

MUTQ-142: Viola Minor

Study of scales and broken chords in three octaves through the seventh position, technical studies, etudes, and preparation for senior recital.
Credits: 2

Prerequisites:

MUTQ-131, 132, or consent of instructor.

MUTQ-211: Viola Major

Instruction in technical studies, etudes, sonatas, and solo repertoire.
Credits: 4

MUTQ-212: Viola Major

Instruction in technical studies, etudes, sonatas, and solo repertoire.
Credits: 4

MUTQ-221: Viola Major

Includes technical studies, scales, arpeggios, double-stopping, and development of bow technique; suitable studies and compositions from early and contemporary eras; and preparation for qualifying recital.
Credits: 4

Prerequisites:

MUTQ- 211, 212, or consent of instructor.

MUTQ-222: Viola Major

Includes technical studies, scales, arpeggios, double-stopping, and development of bow technique; suitable studies and compositions from early and contemporary eras; and preparation for qualifying recital.
Credits: 4

Prerequisites:

MUTQ- 211, 212, or consent of instructor.

MUTQ-231: Viola Major

Continuation of MUTQ-221, 222.
Credits: 4

Prerequisites:

MUTQ-221, 222, or consent of instructor.

MUTQ-232: Viola Major
Continuation of MUTQ-221, 222.
Credits: 4

Prerequisites:

MUTQ-221, 222, or consent of instructor.

MUTQ-241: Viola Major

Continuation of MUTQ-231, 232.

Credits: 4

Prerequisites:

MUTQ-231, 232, or consent of instructor.

MUTQ-242: Viola Major
Continuation of MUTQ-231, 232.
Credits: 4

Prerequisites:

MUTQ-231, 232, or consent of instructor.

MUTQ-301: Graduate Viola Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUTQ-302: Graduate Viola Minor II

A continuation of MUTQ-301. This course builds upon Viola performance techniques.
Credits: 3

MUTQ-303: Graduate Viola Minor III

A continuation of MUTQ-302. This course builds upon Viola performance techniques.
Credits: 3

MUTQ-304: Graduate Viola Minor IV

A continuation of MUTQ-303. This course builds upon Viola performance techniques.
Credits: 3

MUTQ-311: Graduate Viola Major I

Private instruction in performance for graduate students.
Credits: 5

MUTQ-312: Graduate Viola Major II

Private instruction in performance for graduate students.
Credits: 5

MUTQ-321: Graduate Viola Major III

Private instruction in performance for graduate students.
Credits: 5

MUTQ-322: Graduate Viola Major IV

Private instruction in performance for graduate students.
Credits: 5

Violin

MUSL-111: Violin Minor

Instruction in major and minor scales and arpeggios in three octaves, solo repertoire comparable to Kreutzer's 42 Etudes, Sevcik's Opus 9, and concerti by Seitz and Accolay.
Credits: 2

MUSL-112: Violin Minor

Instruction in major and minor scales and arpeggios in three octaves, solo repertoire comparable to Kreutzer's

42 Etudes, Sevcik's Opus 9, and concerti by Seitz and Accolay.
Credits: 2

MUSL-121: Violin Minor

Instruction in scales and arpeggios continued from MUSL-111, 112, and etudes, compositions, concerti, and sonatas.
Credits: 2

Prerequisites:

MUSL-111, 112, or consent of instructor.

MUSL-122: Violin Minor

Instruction in scales and arpeggios continued from MUSL-111, 112, and etudes, compositions, concerti, and sonatas.
Credits: 2

Prerequisites:

MUSL-111, 112, or consent of instructor.

MUSL-131: Violin Minor
Continuation of MUSL-122.
Credits: 2

Prerequisites:

MUSL-MUSP, consent of instructor.

MUSL-132: Violin Minor
Continuation of MUSL-122.
Credits: 2

Prerequisites:

MUSL-MUSP, consent of instructor.

MUSL-141: Violin Minor

Continuation of MUSL-132, including preparation for senior recital.
Credits: 2

Prerequisites:

MUSL-131, 132, or consent of instructor.

MUSL-142: Violin Minor

Continuation of MUSL-132, including preparation for senior recital.
Credits: 2

Prerequisites:

MUSL-131, 132, or consent of instructor.

MUSL-211: Violin Major

Includes scales, arpeggios, double-stopping, bow technique and suitable studies and compositions from early and contemporary areas.
Credits: 4

MUSL-212: Violin Major

Includes scales, arpeggios, double-stopping, bow technique and suitable studies and compositions from early

and contemporary areas.
Credits: 4

MUSL-221: Violin Major

Continuation of MUSL-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSL-211, 212, or consent of instructor.

MUSL-222: Violin Major

Continuation of MUSL-211, 212, with preparation for qualifying recital.
Credits: 4

Prerequisites:

MUSL-211, 212, or consent of instructor.

MUSL-231: Violin Major

Includes techniques, etudes, sonatas, compositions, and concerti.
Credits: 4

Prerequisites:

221, 222, or consent of instructor.

MUSL-232: Violin Major

Includes techniques, etudes, sonatas, compositions, and concerti.
Credits: 4

Prerequisites:

221, 222, or consent of instructor.

MUSL-241: Violin Major

Consists of technique; review and continuation of previous material; study of etudes, sonatas, and concerti; and preparation of senior recital.
Credits: 4

Prerequisites:

MUSS, MUST, or consent of instructor.

MUSL-242: Violin Major

Consists of technique; review and continuation of previous material; study of etudes, sonatas, and concerti; and preparation of senior recital.
Credits: 4

Prerequisites:

MUSS, MUST, or consent of instructor.

MUSL-301: Graduate Violin Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSL-302: Graduate Violin Minor II

A continuation of MUSL-301. This course builds upon violin performance techniques.
Credits: 3

MUSL-303: Graduate Violin Minor III

A continuation of MUSL-302. This course builds upon violin performance techniques.
Credits: 3

MUSL-304: Graduate Violin Minor IV

A continuation of MUSL-303. This course builds upon violin performance techniques.
Credits: 3

MUSL-311: Graduate Violin Major I

Private instruction in performance for graduate students.
Credits: 5

MUSL-312: Graduate Violin Major II

Private instruction in performance for graduate students.
Credits: 5

MUSL-321: Graduate Violin Major III

Private instruction in performance for graduate students.
Credits: 5

MUSL-322: Graduate Violin Major IV

Private instruction in performance for graduate students.
Credits: 5

Violoncello

MUSM-100: Violoncello Instruction

Private lessons to non-music majors. Permission of coordinator/instructor required. Course can be repeated.
Credits: 1

MUSM-111: Violoncello Minor

Consists of all major and minor scales and arpeggios in two octaves with various bowings; studies by Lee, Schroeder, Greutzmacher, and Alexanian; and Hindemith's Three Easy Pieces.
Credits: 2

MUSM-112: Violoncello Minor

Consists of all major and minor scales and arpeggios in two octaves with various bowings; studies by Lee, Schroeder, Greutzmacher, and Alexanian; and Hindemith's Three Easy Pieces.
Credits: 2

MUSM-121: Violoncello Minor
Continuation of MUSM-111, 112.
Credits: 2

Prerequisites:

MUSM-111, 112, or consent of instructor.

MUSM-122: Violoncello Minor
Continuation of MUSM-111, 112.
Credits: 2

Prerequisites:

MUSM-111, 112, or consent of instructor.

MUSM-131: Violoncello Minor
Continuation of MUSM-121, 122.
Credits: 2

Prerequisites:

MUSM-121, 122, or consent of instructor.

MUSM-132: Violoncello Minor

Continuation of MUSM-121, 122.

Credits: 2

Prerequisites:

MUSM-121, 122, or consent of instructor.

MUSM-141: Violoncello Minor

Continuation of MUSM-131, 132, along with preparation of senior recital.
Credits: 2

Prerequisites:

MUSM- 131, 132, or consent of instructor.

MUSM-142: Violoncello Minor

Continuation of MUSM-131, 132, along with preparation of senior recital.
Credits: 2

Prerequisites:

MUSM- 131, 132, or consent of instructor.

MUSM-211: Violoncello Major

Consists of major and minor scales and arpeggios in three octaves; studies by Schroeder, Popper, Dotzauer, and Klengel; and suitable compositions from string literature.
Credits: 4

MUSM-212: Violoncello Major

Consists of major and minor scales and arpeggios in three octaves; studies by Schroeder, Popper, Dotzauer, and Klengel; and suitable compositions from string literature.
Credits: 4

MUSM-221: Violoncello Major

Continuation of MUSM-211, 212. Qualifying recital.
Credits: 4

Prerequisites:

MUSM-211, 212, or consent of instructor.

MUSM-222: Violoncello Major

Continuation of MUSM-211, 212. Qualifying recital.
Credits: 4

Prerequisites:

MUSM-211, 212, or consent of instructor.

MUSM-231: Violoncello Major
Continuation of MUSM-221, 222.
Credits: 4

Prerequisites:

MUSM-221, 222, or consent of instructor.

MUSM-232: Violoncello Major
Continuation of MUSM-221, 222.
Credits: 4

Prerequisites:

MUSM-221, 222, or consent of instructor.

MUSM-241: Violoncello Major

Continuation of MUSM-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSM-231, 232, or consent of instructor.

MUSM-242: Violoncello Major

Continuation of MUSM-231, 232, with preparation for senior recital.
Credits: 4

Prerequisites:

MUSM-231, 232, or consent of instructor.

MUSM-301: Graduate Violoncello Minor I

This course is designed to help you develop comprehensive practice strategies as well as how to develop your dexterity and playing abilities.
Credits: 3

MUSM-302: Graduate Violoncello Minor II

A continuation of MUSM-301. This course builds upon violoncello performance techniques.
Credits: 3

MUSM-303: Graduate Violoncello Minor III

A continuation of MUSM-302. This course builds upon violoncello performance techniques.
Credits: 3

MUSM-304: Graduate Violoncello Minor IV

A continuation of MUSM-303. This course builds upon violoncello performance techniques.
Credits: 3

MUSM-311: Graduate Violoncello Major I

Private instruction in performance for graduate students.
Credits: 5

MUSM-312: Graduate Violoncello Major II

Private instruction in performance for graduate students.
Credits: 5

MUSM-321: Graduate Violoncello Major III

Private instruction in performance for graduate students.
Credits: 5

MUSM-322: Graduate Violoncello Major IV

Private instruction in performance for graduate students.
Credits: 5

VOICE

MUSG-257: Graduate Solo Vocal Literature

This course is designed to survey the development of solo vocal literature. Music covered in this course will be limited to classical song literature - song written in a classical style for solo voice and piano. Classes will consist of lecture and discussion of materials (textbook, audio recordings, written music) and special presentations.
Credits: 3

MUSG-311: Graduate Voice Major I

This course investigates the vocal physiology and various teaching methods and tools necessary to the successful singer and pedagogue. Required study for all voice majors, undergraduate and graduate.
Credits: 5

MUSG-321: Graduate Voice Major III

A continuation of MUSG-312. This course investigates the vocal physiology and various teaching methods and tools necessary to the successful singer and pedagogue. Required study for all voice majors, undergraduate and graduate.
Credits: 5

MUSG-355: Graduate Voice Pedagogy

In this course, you will have the opportunity to learn the principles which are the foundation of all teaching methodologies. Principles learned in this class can be applied to both one-on-one teaching (singing lessons, vocal coaching) and group situations (class voice, choral music). Through readings, class lectures, guest lectures and perhaps a field trip or two, you will be exposed to the anatomy, physiology, acoustics and development of the human voice.
Credits: 3

MUSG-371: Graduate Opera Ensemble Workshop

The opera workshop is a select ensemble/class for moderate to advanced classical singers. Topics include the musical, linguistic, and dramatic preparation and performance of roles and scenes from the operatic and operetta repertory.
Credits: 1

Women's Studies

WOMS-500: Introduction to Women's Studies

(This interdisciplinary course explores and analyzes the position of women and the role of gender in the institutions of the United States, including the family, education, government, law, the economy, and religion.
Credits: 3

WOMS-501: Internship in Women's Studies

Supervised work-and-learning experience in women's and gender studies under the direction of a University faculty member/administrator and an employee of a sponsor organization.
Credits: 3

WOMS-502: Independent Study in Women's Studies

Supervised work-and-learning experience in women's and gender studies under the direction of a University faculty member/administrator and an employee of a sponsor organization.
Credits: 3

Woodwind Ensemble

MUTC-301: Woodwind Ensemble I

Students will be assigned with saxophone quartet, woodwind quintet, clarinet trios, flute trios, choirs of instruments, and mixed ensemble works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.
Credits: 1

MUTC-302: Woodwind Ensemble II

A continuation of MUTC-301. Weekly coaching and rehearsals in woodwind ensembles.
Credits: 1

MUTC-303: Woodwind Ensemble III

A continuation of MUTC-302. Weekly coaching and rehearsals in woodwind ensembles.
Credits: 1

MUTC-304: Woodwind Ensemble IV

A continuation of MUTC-303. Weekly coaching and rehearsals in woodwind ensembles.
Credits: 1

MUTC-311: Flute Ensemble I

Students will be assigned with flute trio works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.
Credits: 1

MUTC-311: Flute Ensemble I

Students will be assigned with flute trio works with musical partners at their level and/ or assigned with accompany in vocal and instrumental. Students will practice assigned works regularly with their partners and perform together in front of the class.
Credits: 1

MUTC-312: Flute Ensemble II

A continuation of MUTC-311. Weekly coaching and rehearsals in flute ensembles.
Credits: 1

MUTC-313: Flute Ensemble III

A continuation of MUTC-312. Weekly coaching and rehearsals in flute ensembles.
Credits: 1

MUTC-314: Flute Ensemble IV

A continuation of MUTC-313. Weekly coaching and rehearsals in flute ensembles.
Credits: 1