NSU Florida

Halmos College of Arts and Sciences

NOVA SOUTHEASTERN UNIVERSITY

Graduate Program Catalog

2024-2025

Version: August 2024

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DEAN'S WELCOME

Welcome to NSU's Halmos College of Arts and Sciences and the Guy Harvey Oceanographic Research Center! The College is NSU's intellectual and cultural foundation, firmly anchoring the University in the liberal arts and sciences necessary for the 21st-century workforce. We engage you in a cutting-edge selection of graduate programs built on innovative models and relevant technologies.

The College provides an inclusive learning community grounded in faculty-student collaboration and teaching-learning excellence, leading you to a path of passionate lifelong learning and self-discovery. In programs across the arts, the natural and social sciences, and the humanities, the College is authentically invested in supporting experiential and high-impact learning opportunities, cross-disciplinary education, and globally significant research and scholarship. On behalf of our faculty and staff, I extend our sincere wishes for a rewarding academic year of successful productivity on your personal and professional goals.

Holly Lynn Baumgartner, Ph.D.
Dean

HOW TO USE THIS CATALOG

The Nova Southeastern University (NSU) Halmos College of Arts and Sciences (HCAS) Graduate Program Catalog is a resource for information about academic programs and curriculum requirements, academic policies, procedures for resolving academic and administrative grievances, course descriptions, and other information relevant to the graduate degree programs at NSU's Halmos College of Arts and Sciences and the Guy Harvey Oceanographic Research Center.

The HCAS Graduate Program Catalog is published annually and comprises information for all graduate students at HCAS. Students are bound by the curricula published in the current year catalog the semester they enter NSU. Students are also bound by the academic and administrative policies described in the most recently published catalog. If there is an interruption in studies of more than one calendar year from the end of the last semester enrolled, the student must abide by the HCAS Graduate Catalog in effect upon return or the requirements approved by the student's department chair.

This catalog provides guidelines and rules to assist the student in fulfilling the academic requirements of HCAS' master's and doctoral degrees. For graduation, students must fulfill the program requirements in effect at their initial registration, or they may move to the degree plan from a later-edition catalog if program changes are implemented. HCAS reserves the right to make updates between catalog publications. Copies of the catalog and any updates are located on the college website (hcas.nova.edu/graduate). Students are responsible for complying with this catalog's rules, policies, and procedures. The failure of students to read and/or understand these rules, policies, and procedures is not an excuse for violations.

NSU NONDISCRIMINATION STATEMENT

Consistent with all federal and state laws, rules, regulations, and/or local ordinances (e.g., Title VII, Title VI, Title III, Title II, Rehab Act, ADA, Title IX, and the Florida Civil Rights Act), it is the policy of Nova Southeastern University not to engage in any discrimination or harassment against any individuals because of race, color, religion or creed, sex, pregnancy status, national or ethnic origin, nondisqualifying disability, age, ancestry, marital status, sexual orientation, gender, gender identity, military service, veteran status, or political beliefs or affiliations, and to comply with all federal and state nondiscrimination, equal opportunity, and affirmative action laws, orders, and regulations. Any such acts are unacceptable and strictly prohibited by the university.

In addition, the law prohibits retaliation against an individual for opposing any practices forbidden under this policy, for bringing a complaint of discrimination or harassment, for assisting someone with such a complaint, for attempting to stop such discrimination or harassment, or for participating in any manner in any investigation or resolution of a complaint of discrimination or harassment. This nondiscrimination policy applies to admissions; enrollment; scholarships; loan programs; athletics; employment; and access to, participation in, and treatment in all university centers, programs, and activities. NSU admits students of any race, color, religion or creed, sex, pregnancy status, national or ethnic origin, nondisqualifying disability, age, ancestry, marital status, sexual orientation, gender, gender identity, military service, veteran status, or political beliefs or affiliations, to all the rights, privileges, programs, and activities generally accorded or made available to students at NSU, and does not

discriminate in the administration of its educational policies, admission policies, scholarship and loan programs, and athletic and other school-administered programs.

Nova Southeastern University (NSU) does not discriminate on the basis of sex and prohibits sex discrimination in any education program or activity that it operates, as required by Title IX and its regulations, including in admission and employment.

Inquiries about Title IX may be referred to NSU's Title IX Coordinator, the U.S. Department of Education's Office for Civil Rights, or both. NSU's Title IX Coordinator is:

Laura Bennett
Title IX Coordinator/Managing Director of Title IX Compliance
Mailing Address:
Office of Human Resources
3300 S. University Drive
Fort Lauderdale, FL 33328-2004
Email: *Laura.bennett@nova.edu*
Website: *nova.edu/title-ix*
Phone: (954) 262-7858

Remote/virtual with team offices in Campus Support Building (Rooms 170B, 171, and 174). Please visit *nova.edu/title-ix* to review NSU's Title IX nondiscrimination policy and grievance procedures, to report information about conduct that may constitute sex discrimination, or to make a complaint of sex discrimination under Title IX.

All other inquiries or complaints regarding perceived discrimination should be directed to:

Benjamin Johnson, Ph.D.
Dean of Students
Phone: (954) 262-7281
Email: *bj379@nova.edu*

NSU ACCREDITATION

Nova Southeastern University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate's, baccalaureate, master's, educational specialist, doctoral, and professional degrees. Nova Southeastern University also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of Nova Southeastern University may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

NSU STUDENT HANDBOOK

The NSU Student Handbook addresses general university student policies, including student life, student rights and responsibilities, university policies and procedures, and NSU resources. The NSU Student Handbook can be viewed at https://nova.edu/student-handbook.

HCAS OVERVIEW

The Halmos College of Arts and Sciences and the Guy Harvey Oceanographic Research Center includes the following seven departments:

- Department of Biological Sciences
- Department of Chemistry and Physics
- Department of Communication, Media, and the Arts
- Department of Conflict Resolution Studies
- Department of Humanities and Politics
- Department of Marine and Environmental Sciences
- Department of Mathematics

HCAS includes multiple centers and institutes, including:

- The Guy Harvey Research Institute (GHRI)
- Save Our Seas Shark Foundation Shark Research Center
- The Center for Applied Humanities
- The Marine Environmental Education Center (MEEC)
- The National Coral Reef Institute (NCRI)
- The Deep-Pelagic Nekton Dynamics of the Gulf of Mexico (DEEPEND) Consortium
- The Study of Environmental Conservation through Leading-Edge Research (SECLER)
- The Council for Dialogue & Democracy (CDD).

To learn more about HCAS, please visit https://hcas.nova.edu.

MISSION

The NSU Halmos College of Arts and Sciences' Mission can be found at the following link: https://hcas.nova.edu/about/mission-statement.html.

VISION 2025 STATEMENT & CORE VALUES

By 2025, NSU will be recognized as a preeminent, professional-dominant, doctoral-research university that provides competitive career advantages to its students and produces alumni who serve and lead with integrity.

To learn more about NSU's Vision 2025 and Core Values, please visit: https://www.nova.edu/about/vision-mission-core-values.html.

UNIVERSITY HISTORY

Founded in 1964, NSU has a proud history in South Florida. To learn about the university's founding, please visit the NSU History page at the following link: https://www.nova.edu/about/history.html.

HALMOS COLLEGE CAMPUS LOCATIONS

Halmos College operates on two campuses in the Fort Lauderdale area, as well as online for certain programs:

1. Main Campus in Fort Lauderdale/Davie
2. Oceanographic Campus in Hollywood

HCAS is housed in three locations on the Fort Lauderdale/Davie campus. The Department of Biological Sciences and the Department of Chemistry and Physics are housed in the **Parker Building**. Graduate students conduct research in this building and research laboratories housed at the Oceanographic Campus. The **Mailman-Hollywood Building** houses the Department of Conflict Resolution Studies, the Department of Humanities and Politics, and the Department of Communication, Media, and the Arts. The **Don Taft University Center** houses the Performing and Visual Arts Wing, which has two theatres and an art gallery, art and dance studios, orchestra and choral rooms, and scene and costume shops, as well as Mako Media Network's newsroom, radio station, and tv studio, all a part of the Department of Communication, Media, and the Arts.

Fort Lauderdale/Davie Campus
3300 South University Drive
Fort Lauderdale, Florida 33328-2004
Phone: 800-541-NOVA (6682)
Email: nsuinfo@nova.edu

For directions to the Fort Lauderdale/Davie Campus, please visit the following link:
https://www.nova.edu/locations/main-campus.html.

The Oceanographic Campus (OC) is only 12 miles from the Fort Lauderdale/Davie Campus. It is nestled at the end of Von D. Mizell and Eula Johnson State Park, directly on the entrance channel of Port Everglades and within one hundred meters of the Atlantic Ocean. The Department of Marine and Environmental Sciences is housed on this campus.

Oceanographic Campus
8000 North Ocean Drive
Dania Beach, FL 33004-3078

For directions to the Oceanographic Campus, please visit the following link:
https://www.nova.edu/locations/oceanographic-center.html.

To learn more about the university's campus locations, please visit the following link:
https://www.nova.edu/about/campus-locations.html.

For a complete overview of NSU's facilities, please refer to the NSU Fact Book at the following link: https://nsuworks.nova.edu/nsudigital_factbook.

LIBRARY RESOURCES

For general information about NSU's libraries, including links to each library location, please visit the following link: https://www.nova.edu/community/libraries.html.

Library Contact Information

To call the library from outside Broward County, dial 1-800-541-6682. When on the university's main campus, use the last five digits of the phone number.

Interlibrary Loan Department
Email: ill@nsu.nova.edu
Phone: 954-262-4619
Fax: 954-262-3944

Document Delivery
Email: library@nsu.nova.edu
Phone: 954-262-4602
Fax: 954-262-3947 or 888-DLSDOCS

Circulation Desk
Phone: 954-262-4601

Reference Desk
Email: refdesk@nsu.nova.edu
Phone: 954-262-4613

TECHNOLOGY FACILITIES

The purpose of the Office of Innovation and Information Technology (OI2T) is to provide the University community with the technological resources to support and complement teaching, learning, and research, regardless of geographic location; to maintain a leadership role in instructional technology by providing quality services that facilitate, enhance, and support the goals and objectives of a diverse university community; and to provide and support a solid student-centered administrative system.

To learn more about the university's information technology network, please visit the OI2T website at the following link: https://www.nova.edu/oiit.

RESEARCH ACTIVITIES

Since its founding, the university has had a long history of conducting high-quality research on various topics and in many disciplines. Today, the Halmos College of Arts and Sciences faculty, researchers, staff, and students pursue studies and investigations in multiple natural scientific fields, including the arts, humanities, and social sciences. Research remains at the forefront of HCAS' many initiatives. Specific research topics and past publications for all Halmos College of Arts and Sciences can be found at the following link: https://nsuworks.nova.edu/hcas.

PARTNERSHIPS AND INSTITUTIONS

HCAS is home to several programs and institutions that partner with NSU or as part of the university to serve students and the wider South Florida community.

Broward County Sea Turtle Conservation Program

NSU Halmos College of Arts and Sciences operates the Broward County Sea Turtle Conservation Program in partnership with the Broward County government. The program provides for conserving endangered and threatened sea turtle species within Broward County. To learn more about this program, please visit the website at https://hcas.nova.edu/seaturtles.

Center for Applied Humanities

The Center for Applied Humanities is dedicated to highlighting the significant role the humanities play in related fields in the social sciences. The Center aims to demonstrate the relevance of the humanities as a complement to the core STEM fields (science, technology, engineering, and math) to encourage students and scholars in those disciplines to explore these connections. To learn more about the Center, please visit the website at https://hcas.nova.edu/humanities.

Guy Harvey Research Institute

The NSU Guy Harvey Research Institute (GHRI) is a scientific organization based at the Oceanographic Campus. The GHRI conducts high-quality, solution-oriented, basic, and applied scientific research for effective conservation, biodiversity maintenance, restoration, and understanding of the world's wild fishes. To learn more about the institute, please visit the website at https://hcas.nova.edu/guy-harvey.

Marine Environmental Education Center (MEEC)

Located at the Carpenter House in Dania Beach, the Marine Environmental Education Center (MEEC) is managed by the Halmos College of Arts and Sciences on behalf of Broward County. The Center offers programs and exhibits to expand education and outreach about sea turtles and other valuable marine resources. To learn more about MEEC, please visit the website at https://hcas.nova.edu/carpenter-house-meec.

National Coral Reef Institute

The National Coral Reef Institute (NCRI) was established by Congressional mandate in 1998. The Institute's primary objective is to assess, monitor, and restore coral reefs through basic and applied research, training, and education. NCRI operates at Nova Southeastern University's Oceanographic Campus in Hollywood, FL. To learn more about the Institute, please visit the following link to view the NCRI brochure: https://www.nova.edu/publications/ncri_brochure/7/.

FACULTY AND STAFF

For current information about HCAS faculty and staff, including their background, courses, and research interests, please visit the HCAS faculty website at https://hcas.nova.edu/faculty.

ACADEMIC CALENDAR

The academic calendar and other current-year resources are at the following link:
https://hcas.nova.edu/current-students.

PROGRAMS AND MAJORS

For a listing of all current HCAS programs and majors, please visit the main college website at https://hcas.nova.edu.

GENERAL ADMISSIONS INFORMATION

Complete instructions for applying to all HCAS graduate programs (listed at the site above) are detailed in our application packet on the HCAS Graduate Admissions page (https://hcas.nova.edu/admissions).

Admissions Offer Disclaimer

Please note that NSU reserves the right to rescind or place conditions upon admissions offers should information become available that calls into question a prospective student's academic performance or character, including that which reflects a violation of NSU's Student Conduct Policy. Information about the Office of Student Conduct can be found at the following link:
https://www.nova.edu/studentconduct.

INTERNATIONAL STUDENT ADMISSIONS

Nova Southeastern University's programs are administered through its 14 colleges and schools at locations throughout Florida, across the nation, and at select international sites.

U.S. Citizenship and Immigration Services (USCIS) has approved NSU to accept and enroll international students attending classes at its Main Campus in Fort Lauderdale and any regional campuses.

Complete information for international students is available at the following link:
https://nova.edu/internationalaffairs/students.

Office of International Students and Scholars

The Office of International Students and Scholars (OISS) provides complete support and advisory services. They are available to answer questions and help with immigration-related problems. OISS offers immigration assistance for the NSU community and serves as a liaison between NSU's Office of International Affairs and U.S. Citizenship and Immigration Services (USCIS) in matters related to international students and scholars studying and working at NSU.

For more information about OISS, please visit the following link:
https://www.nova.edu/internationalaffairs/students.

Language Proficiency Information

Applicants whose native or official language is not English must demonstrate English proficiency to be admitted into a degree program. Programs are taught in English, as are tests and assignments.

Each program may have additional requirements. Please check with the program's admissions department for its English proficiency requirements.

For complete language proficiency information, please visit NSU's Office of International Affairs website at https://www.nova.edu/internationalaffairs/students/prospective/language_proficiency.html.

POLICIES AND PROCEDURES

The following information is for students enrolled in the HCAS graduate programs. The failure to read this catalog does not excuse students from required compliance with the rules, policies, and procedures contained in it.

Flexibility in Policies

University policies are intended to describe some of the expectations of members of the university community, as well as outline the university's community policies and programs. They are intended to be used as a guideline and do not create an express or implied contract that cannot be changed or modified. Circumstances not specifically addressed in university policies will be handled on a case-by-case basis by the appropriate official selected by the university. As the need may arise, the university reserves the right to, in its sole discretion, modify, revise, supplement, rescind, suspend, terminate, or change its policies, procedures, programs, activities, and services, in whole or in part, to the fullest extent permitted by law.

Image Use Statement

As part of the Student Enrollment Agreement (SEA), which students must complete with their first registration each academic year, students are required to agree with the following Image Use Statement:

I permit and authorize Nova Southeastern University (NSU) and its employees, agents, representatives, contractors, and personnel who are acting on behalf of NSU to take and/or obtain my photograph, name, alias, video and/or audio recording, or other likeness of myself, or any combination thereof, at any public NSU-related events or at any public areas on NSU's property (hereinafter "my likeness"). I further grant NSU permission to utilize my likeness for commercial purposes, including publicity, marketing, and promotion for NSU and its programs, without compensation to me, to the extent permissible under the Family Educational Rights and Privacy Act (FERPA). I understand and consent to NSU copying, reproducing, and distributing my likeness in any media format. I further understand that my likeness may be subject to reasonable modification and/or editing and waive any right to inspect or approve the finished product or material in which NSU may eventually use my likeness. I acknowledge that NSU owns all rights to my likeness and understand that, although NSU will endeavor to use my likeness in accordance with standards of good judgment, NSU cannot warrant or guarantee that any further dissemination of my likeness will be subject to NSU's supervision or control. Accordingly, I release NSU from any and all liability related to the use, dissemination, reproduction, distribution, and/or display of my likeness in any media format, and any alteration, distortion, or illusionary effect of my likeness, whether intentional or otherwise, in connection with said use. I also understand that I may not withdraw my permission for use of my likeness which was granted.

Student Contact and Personal Information

Students must keep their contact information current in SharkLink at https://sharklinkportal.nova.edu at all times, including preferred and permanent mailing addresses and phone numbers, to ensure that they can be contacted in an emergency, receive financial aid refunds, and any important information sent by postal mail. Students may update their address in SharkLink.

To make a change to other personal information, such as a name, Social Security Number, date of birth, or gender, Nova Southeastern University requires official documentation. Students must submit a completed Data Change Request available at https://www.nova.edu/registrar/forms1.html along with supporting legal documentation. For details on acceptable documentation for each change, visit the Registrar's website at https://www.nova.edu/registrar/services.

Auditing a Course

An audit is a registration status that allows students to attend a course without receiving academic credit. Prior to auditing a course, a student must submit a completed Course Audit Request Form to seek written approval from the instructor and the Department Chair/ Director. Upon completion of the audited course, an "AU" grade will be posted. The "AU" grade cannot be changed to a letter grade, nor will it affect a student's GPA. For detailed information, visit https://www.nova.edu/registrar/policies/course-audit-policy.html.

Leave of Absence

A leave of absence (LOA) is a university-approved temporary period of time during which the student is not in attendance but is not considered withdrawn from the university. Students who experience extenuating and unavoidable circumstances that prevent them from maintaining an active status through continuous enrollment must consult with their advisor/program office or the office of the dean of students to determine whether their circumstances warrant an LOA request and to discuss the impacts of an approved LOA on their degree/program completion, academic standing, and course grades. An LOA request must be submitted at least 14 days prior to the beginning of the semester/term for the leave. An approved LOA may be granted for up to 180 days within a 12-month period. For more details, including the Leave of Absence Request Form, visit the Office of the University Registrar's website at https://www.nova.edu/registrar/forms1.html.

Roster Reconciliation

Students are required to attend the first class of each course in order to start academic work for the semester, unless they have obtained prior approval for an absence from the instructor. Without such approval, a student will be reported as not in attendance, which may result in the student being dropped from the class through the university's roster reconciliation process. However, it remains the student's responsibility to monitor class registration status in accordance with the Student Enrollment Agreement (SEA), regardless of the instructor's roster reconciliation submission.

Force Majeure

NSU's duties and obligations to the student shall be suspended or modified immediately, without notice, during all periods that the university determines it is closed or ceases or modifies or curtails operations because of force majeure events including, but not limited to, any fire or any casualty, flood, earthquake, hurricane, lightning, explosion, strikes, lockouts, prolonged shortage of energy supplies, 83 riots or civil

commotion, Act(s) of God, war, governmental action, act(s) of terrorism, infectious diseases, epidemic, pandemic, physical or structural dangers, or any other event beyond the university's control. If such an event occurs, NSU's duties and obligations to the student (including its delivery and format of classes, student housing and dining, campus facilities, and related services, activities, and events) will be postponed, canceled, or modified until such time as the school, in its sole discretion, may safely reopen or resume normal operations. Under no circumstances, except as otherwise required by Federal or State statute, will NSU be obligated to refund, reduce, or credit any portion of tuition, housing, meal plans, fees, or any other cost or charge attributable to any location, delivery modality, or service affected by any such force majeure event necessitated by acts of God, university or academic or health and safety decisions, and/or any situations outside of the university's control. This includes, but is not limited to, any suspensions to or changes from in-person, on-campus education, services, and/or activities to remote services, activities, and/or remote learning. By choosing to enroll or study at NSU, students agree to these terms.

Any decisions by the university to provide a refund or credit, in whole or in part, of any fee or other charge, in the event of a campus closure, suspension, or other change to the delivery format of education, activities, housing, dining, and/or services shall be in the university's discretion and shall not create an expectancy that any individual is legally entitled to such refund or credit or that it will be provided in any other instance.

Indebtedness to the University

By registering for courses at Nova Southeastern University, the student accepts financial responsibility for payment of all institutional costs including, but not limited to, tuition, fees, housing, health insurance, and meal plan (if applicable), and any additional costs when those charges become due. Payment is due in full at the time of registration. NSU eBill notifications are sent the middle of each month to the student's NSU email address. However, to avoid late charges, students should not wait for their billing notice to pay their tuition and fees. A student will not be able to register for future semesters until all outstanding balances from previous semesters have been paid in full. If a student has a balance 30 days after the start of the semester, a hold and a $100 late fee will be placed on his or her account. This hold stops all student services, including, but not limited to, access to the NSU RecPlex, and future registrations. It will remain on the student's account until the balance has been paid in full. Delinquent student account balances may be reported to a credit bureau and referred to collection agencies or litigated. Students with delinquent accounts will be liable for any costs associated with the collection of unpaid charges, including attorney fees and court costs. All registration agreements shall be construed in accordance with Florida law, and any lawsuit to collect unpaid fees shall be brought exclusively in the appropriate court sitting in Broward County, Florida, regardless of the student's domicile.

University Fees

NSU offers to all students—on campus, online, clinical, or hybrid—the same quality education and many opportunities for student benefits depending on the student's choice of educational modality selected. Therefore, the university sets the overall student fees on an aggregate, student-centric basis for the entire student body. The overall costs exceed the amount collected from student fees charged to all students. These student fees are blended together to create 1NSU with high-tech systems, student activities, and many other essential student services that make a complete, integrated university. This mission transcends the development and ultimate determination of the amount of student fees for all students, irrespective of their choice of learning modality.

Degree Limits

To encourage focused academic achievement, promote postgraduate professional success, and allocate university resources efficiently, NSU has established the following limitations with respect to the number of degrees it will award to a single student:

- A maximum of four degrees at the master's level, regardless of academic program, major or concentration
- A maximum of two education specialist (EdS) degrees
- One of each type of all other doctoral or professional degrees (e.g., PhD, MD, JD, DO, etc.) at NSU.

Multiple doctoral degrees of the same type are not permitted, regardless of whether they have different majors/concentrations or are offered through different colleges or academic programs at NSU. By setting these limits, NSU aims to support students in achieving depth and specialization in their chosen fields while balancing academic rigor and maintaining the quality and accessibility of its educational offerings.

Although degrees awarded at other institutions do not count toward this policy, when exercising its academic discretion with respect to admissions decisions, NSU considers the totality of an applicant's academic history, including the nature and number of degrees possessed by the applicant.

Attendance Policy

The educational process at NSU depends on a close working relationship between students and faculty members. Students are expected to attend class regularly, from beginning to end. Students who miss a class must inform the instructor before the class meeting.

University policy requires each faculty member to confirm their class roster during the second week of each semester. Any student deemed a non-attendee will be dropped from the class by the office of the University Registrar. Students who believe they were reported in error as non-attendees must communicate with the instructor, who is the only one to determine whether the student may remain in the class.

Students are responsible for the academic consequences resulting from class absences. Students who miss class because of an illness or other emergency should contact the instructor as soon as possible to arrange for make-up work. Missed assignments/tests can be made up solely at the discretion of the course faculty.

It is the policy of the university to excuse, without penalty, absences due to religious observations and to allow students to make up missed work. Course instructors should be notified in advance of any anticipated absence.

Students should review the course syllabus for course-specific policies related to attendance.

Course Delivery

Students should review the following course delivery options with their academic advisors in the department program office based on courses required in their majors and their registration choices.

Face-to-Face

Face-to-face classes are scheduled at a variety of times and locations. Face-to-face classes may include online and regular classroom instruction, although most instructions will occur on campus or in on-site classrooms. Some assignments may be administered through internet-based websites associated

with class textbooks or the university's online course management system. Instructors will explain specific requirements for participation in online components.

Online
Students participating in online classes are supported through various technologies and teaching methods: email, bulletin boards, chat rooms, electronic journals, synchronous conferencing tools, content-sharing tools, video lectures, and other digital and web-based tools and resources. Each student must obtain an NSU account to access email, course materials, and library resources. Students may be required to participate in an online orientation before the start of each class. Some online classes are entirely asynchronous, while others may combine synchronous (online conferencing) and asynchronous elements.

Hybrid
Some courses combine online activities with portions conducted face-to-face on campus. Please consult the course syllabi for more detailed information.

Course Evaluations

Course evaluations facilitate the collection of feedback from students about their classes—how they feel about course content, appropriateness of textbook selection, and other aspects. All evaluations are confidential and anonymous. Students are urged to be honest and constructive in their remarks. The course evaluation process is conducted online. Evaluations open the second-to-last week of classes. It is important to complete the course evaluations when you are sent the course link. University administration uses student feedback to evaluate the course and the textbook.

Grading System

The following grading system exists across all master's and doctoral degrees at HCAS:

Grade	Quality Points
A	4.00
A-	3.75
B+	3.50
B	3.00
B-	2.75
C+	2.50
C	2.00
C-	1.75
F	0.00
NP	0.00
P	0.00
PR	0.00
TR	0.00

With the exceptions listed below, all degree-related courses use the letter grading system. All programs may use the following grades: P (Pass), I (Incomplete), W (Withdrawn), AU (Audit), NP (No Progress), and TR (Transfer) when appropriate. The grade of PR (Progress) may be used for programs to demonstrate progress toward completing a required thesis or dissertation.

Grade Point Average and Quality Points

A student's academic standing for a specific term is indicated by the grade point average (GPA). The GPA is calculated based on earned credits and letter grades (including Fs, for which students receive 0 credits). The GPA does not include classes from which the student has successfully withdrawn or received an Incomplete. Overall academic standing is indicated by the cumulative GPA (CGPA).

- GPA calculations include NSU coursework only, based on the following formulas and definitions.
- Quality points = A letter grade's numerical GPA value MULTIPLIED BY the number of credits assigned to the course
- GPA hours = Earned credits, including Fs, excluding withdrawals and audits, and completed pass/fail courses
- Current semester or term GPA = The total number of quality points for the semester or term DIVIDED BY the total GPA hours for the semester or term
- Cumulative GPA (CGPA) = Total quality points DIVIDED BY total GPA hours

Grade Reports

Student grades are disseminated online via SharkLink at sharklink.nova.edu. Legal provisions prohibit releasing personally identifiable information to anyone other than legally authorized persons. Students are permitted to inspect and review, and if the student feels warranted, challenge a grade according to the grade appeal process.

Incomplete

A grade of Incomplete (I) is issued in rare cases because of unusual and exceptional circumstances. Students are only eligible for an Incomplete if:

1. 50% of the coursework has been completed with a C or above average, and
2. The remaining coursework can be completed in a timeframe agreed upon by the faculty member and the student, not exceeding one term (a maximum of 16 weeks) beyond the final date of the course.

It is the student's responsibility to consult the faculty member regarding an Incomplete request. Based on the unusual and exceptional circumstances surrounding the Incomplete request, documentation may be required to be submitted. Please refer to the Incomplete Grade Agreement Form/Contract for more information. Both the student and faculty member must sign the Incomplete Grade Agreement Form/Contract, stipulating the work to be completed, the deadline by which the work will be completed, and the grade that the student will earn if the work is not completed by the deadline, before the end of the course and agree upon such conditions via email.

If the student does not complete the coursework within the agreed-upon period, the Incomplete grade will be changed to the grade earned based on the work accepted by the instructor to date as stipulated in the contract or agreement; the student can only gain points for assignments completed that were included in the incomplete agreement.

If a change of an Incomplete Grade is not submitted to the registrar's office, the Incomplete Grade will convert to an F one year from the date of the Incomplete.

Academic Standing

As defined below, Academic Standing is separate from the standards for Satisfactory Academic Progress (SAP) for financial aid purposes. For detailed information about maintaining SAP for financial aid eligibility, visit nova.edu/sap.

NSU is committed to accurately tracking and recording a student's permanent academic record. Academic transcripts document the student's academic record for coursework taken at NSU for the student and various agencies (e.g., employers, other academic institutions, etc.). The academic transcript reflects the record of courses in progress and attempted, completed and final grades received, degree sought or earned (with award and academic completion dates), and disciplinary actions resulting in a student's suspension or expulsion from the institution. Additionally, the student's academic standing is reflected on an academic transcript to provide a more complete depiction of the student's academic history. The following designations provide for a student's status as it relates to end-of-term academic standing within the university:

Good Academic Standing

A student is in good academic standing unless they are not making sufficient progress toward degree completion and/or are placed on academic probation, academic suspension, or academic dismissal. Students shall be deemed in good academic standing unless they have a cumulative GPA of less than 3.0, which is required for graduation. Students in the Ph.D. in Conflict Analysis and Resolutions Studies program shall be deemed in good academic standing unless they have a cumulative GPA of less than 3.50.

Academic Probation/Dismissal Policies

Students failing to maintain a cumulative 3.0 GPA for a master's program or 3.5 for a Ph.D. program will be placed on academic probation for two terms. During the probationary period, students must raise their cumulative GPA to at least a 3.0 for a master's and at least a 3.5 for a Ph.D. in two successive terms. Students will not be permitted to take a term off between terms of academic probation.

Students in the Ph.D. in Conflict Analysis and Resolution, M.A. in Composition, Rhetoric, and Digital Media, M.S. in Conflict Analysis and Resolution, and the M.S. in National Security Affairs and International Relations will also be placed on academic probation if any of the following occurs:

- The student fails one course
- The student earns a C-, C, or C+ in two courses
- The student has more than two Incomplete (I) Grades

M.S. Biological Sciences Health Studies concentration students on academic probation will only be allowed to continue at a 50% reduced course load while on academic probation. (They may petition the Department Chair for the option to register for the 6-credit load of BMHS 5350 Systems Neuroscience and BCOR 5350 Principles of Epidemiology only). Note that this reduced load extends the time by more than 12 months for completion of the degree and concentration.

The student will be dismissed from the program if probation is not removed at the end of the two subsequent terms. Students on academic probation may not take a leave of absence. Probation will only be removed once the student achieves a cumulative GPA of 3.0 or higher. Note that to be able to take the comprehensive exam at the end of the program, students may not have more than nine credits of a grade of C+, C, or C-.

Petition for Permission to Enroll After Academic Dismissal

A student may petition for reinstatement in the program following dismissal after 12 months. The petition should explain why their academic potential has changed and the re-admission should be considered. Reinstatement is not guaranteed and is only possible if it is probable that the student can raise their cumulative GPA to at least a 3.0 (3.5 for a Ph.D. in Conflict Analysis and Resolution) in two terms. Students approved to re-enroll after academic dismissal may register for classes the following semester. These students return on academic probation.

GRADUATION: DEGREES, DIPLOMAS, & COMMENCEMENT

Application for Degree

Students must complete an online degree application to be eligible for degree conferral. Students are eligible for graduation when they meet the degree requirements listed in the HCAS Graduate Program Catalog in effect when they enter the university unless a prior request to the program office has been approved to transfer to a revised degree plan published in a more recent catalog. Degrees are conferred once a month by NSU's Board of Trustees upon the recommendation of the faculty once students have met all the criteria for graduation. The conferral date reflects the last day of the month in which the academic department of the appropriate college approved the degree application. Once degrees have been conferred, transcripts and diplomas showing the awarded degree are sent to students by mail. Students with holds on their student account must satisfy any outstanding balances to receive their transcripts and diplomas. Students may apply online for their degree at https://www.nova.edu/registrar/instructions.html.

Diplomas

The diploma indicates the degree and major the student has earned. The academic transcript, the official record of coursework at NSU, indicates the degree earned and the major field of study.

Commencement

Although often used interchangeably, Commencement and Graduation are not the same. It is essential to understand that participating in a commencement ceremony does not mean completing your degree and graduating.

Commencement is a formal ceremony for students cleared to walk by their college or academic program. In some cases, students are still completing coursework.

Ceremony dates can be found online at https://nova.edu/commencement.

Commencement Attendance and Eligibility

Candidates who have achieved degree conferral after the preceding year's commencement exercises are automatically invited to participate in the next ceremony. Otherwise, each program determines its "participation requirements."

GRADUATION REQUIREMENTS

Conferrals for the Ph.D. degree require a minimum GPA of 3.50; master's degrees require a minimum GPA of 3.0.

Ph.D. Minimum Graduation Requirements

The following items must be completed to achieve the Ph.D. Degree:

Ph.D. Degree in Conflict Analysis and Resolution

- Earn a minimum of 76 credit hours
- Pass all course work with 3.5. cumulative GPA or above
- No grade lower than a "C-" is permitted; only one "C" grade (C+, C, C-) is permitted
- Successfully defend dissertation

- Complete the final version of the dissertation and submit it to ProQuest
- Apply for and receive degree conferral
- Complete all requirements above within the stated time limit of the program. Remember, in terms of university policy, you MUST remain registered in the program until all requirements for conferral have been fulfilled, including ProQuest submission and degree application for conferral. Students only have one semester following the semester in which they defend their dissertation to finalize everything.

Ph.D. in Oceanography/Marine Biology

- A minimum of 75 credits beyond the baccalaureate. At least 42 credits must consist of upper-level course work. At least 24 credits must consist of dissertation research.
- Successfully defend the dissertation proposal in an oral presentation to faculty.
- Successfully complete a qualifying examination with the candidate's committee.
- Successfully complete comprehensive examinations upon completion of formal coursework.
- Successfully defend the dissertation to the committee and other faculty members.
- Submit the final dissertation copy to the William H. Richardson Library on the Oceanographic Campus.

Master's Minimum Graduation Requirements

The following items must be completed to achieve the master's degree at HCAS.

M.A. in Composition, Rhetoric, and Digital Media

- Earn 30 credits in required and elective courses, including optional thesis or internship
- Pass all course work with a cumulative GPA of 3.00 or higher
- No grade lower than a "C-" is permitted; only one "C" grade (C+, C, C-) is permitted.
- Successfully complete thesis, portfolio, or exam requirements
- Complete all requirements above within the stated time limit of the program

M.P.S. in Environmental Sciences

- A minimum of 30 credits beyond the baccalaureate
- Pass all course work with a cumulative GPA of 3.00 or higher

M.S. in Marine Science

- A minimum of 36 credits beyond the baccalaureate
- Successful completion of a pass/fail test on their program learning outcomes.
- Successfully defend the capstone/thesis to the committee and other faculty members.
- Submit the final capstone/thesis copy to NSUWorks

M.S. in Biological Sciences (Capstone/Thesis Option)

- A minimum of 30 credits beyond the baccalaureate
- Successfully defend the capstone/thesis to the committee and other faculty members.
- Submit the final capstone/thesis copy to NSUWorks

M.S. in Biological Sciences (Bioinformatics Concentration)

- A minimum of 30 credits beyond the baccalaureate

M.S. in Biological Sciences (Health Studies Concentration)

- A minimum of 30 credits beyond the baccalaureate
- Successfully pass a comprehensive examination

M.S. in Medicinal Chemistry

- A minimum of 35 credits beyond the baccalaureate
- Successfully defend the capstone/thesis to the committee and other faculty members.
- Submit the final capstone/thesis copy to NSUWorks

M.S. in Conflict Analysis and Resolution

- Earn 36 credits in core courses, practicum, capstone, and electives
- Pass all course work with a cumulative GPA of 3.00 or higher
- No grade lower than a "C-" is permitted; only one "C" grade (C+, C, C-) is permitted
- Must have no disciplinary actions pending or disciplinary tasks to complete
- Successfully complete capstone
- Complete all requirements above within the stated time limit of the program.

M.S. in National Security Affairs and International Relations

- Earn 36 credits in core courses and electives, including optional thesis
- Pass the comprehensive exam or complete the thesis option
- Pass all course work with a cumulative GPA of 3.00 or higher
- No grade lower than a "C-" is permitted; only one "C" grade (C+, C, C-) is permitted.
- Complete all requirements above within the stated time limit of the program.

ONLINE COURSE ACCESS AND SHARKLINK

Technology/Online Education Support

All NSU students are provided with NSU computer accounts, including email accounts. Students, however, must obtain their own Internet Service Providers (ISP) and use their own computer systems. New students receive orientation and extensive online technical support to enable their access to online tools and methods, as well as library resources. Online interactive learning methods involve web-based course materials, the electronic library, and online activities facilitating frequent student-professor interaction. Students submit assignments through a web-based learning environment. Online students can access books, journal articles, microfiche, dissertations, index searches, catalog searches, and reference librarians. The online database collection at NSU is extensive and includes access to quality subscription services free of charge to the student.

SharkLink

SharkLink is NSU's online information portal. A single username and password provide students access to their NSU email account, online courses and discussion groups, university announcements and calendar reminders, and student records. SharkLink also lets students register online, view course availability, and check their grades. All students are assigned a SharkLink ID, which also serves as their NSU email username, that uniquely identifies them and provides access to the NSU administrative system. SharkLink can be accessed at https://sharklink.nova.edu.

Online Course Management System

The university uses a secure course management platform for developing and delivering interactive courses and their components over the Web. Students must use their SharkLink login and password to access their online courses. Course communication will be done through the course the student is attending. Online courses can be accessed at SharkLearn via https://sharklearn.nova.edu.

Online Video Conferencing

The university uses a secure version of ZOOM, which is only accessible to NSU users (https://nova.zoom.us/meeting). Zoom is a user-friendly, multifaceted video conferencing tool that offers both web-based and desktop accessibility. Students will "join" their courses online with a link provided by their instructors for interactive presentations, discussions, and collaboration. Registration for the NSU Zoom accounts are done through Single Sign On (SSO) with their SharkLink login and password. Through Zoom, instructors and students share a virtual space with whiteboards, annotation tools, and breakout rooms for moderated discussions.

NSU E-mail

All official NSU business, such as information on accounts, financial aid, class emails, etc., is done through students' NSU email accounts. Students can access NSU email by logging into https://sharkmail.nova.edu. Students' SharkLink ID serves as their NSU email username.

PROBLEM RESOLUTION PROCEDURES

The following information complies with recent United States Department of Education regulations. To resolve academic grievances, complaints, and concerns in an expeditious, fair, and amicable manner, students are first asked to consult this catalog for information on the appropriate HCAS grievance procedures.

Types of Grievances

Discrimination

NSU is committed to maintaining a safe and healthy educational environment that is free from discrimination, harassment, and misconduct based on race, religion/creed, sex (including sexual orientation), disability, age, or military/veteran status. The university is committed to taking immediate action to eliminate harassment, prevent recurrence, and address its effects. Any student or employee found to have engaged in acts of harassment is subject to the University Disciplinary process, including potential suspension or expulsion for students and suspension or termination for employees.

For inquires or complaints regarding perceived discrimination based on gender or sex, please contact:

Laura Bennett
Title IX Coordinator
(954) 262-7858
laura.bennett@nova.edu

Information about NSU's Title IX/Sexual Misconduct policy, confidential resources, rights of all parties, definitions and examples of prohibited behaviors, and the procedures for investigating and resolving reports of sexual misconduct is available on the Title IX website at https://nova.edu/title-ix. Individuals may report incidents through a secure online form on the Title IX website and/or may contact the Title IX Coordinator directly. The Title IX Coordinator also assists students in learning about their protections under Title IX, such as those for pregnant/parenting students as well as those who may have experienced sexual violence on- or off-campus that affects their ability to participate in an NSU educational program or activity.

Grade Appeal/Grievance Procedures

Students who believe there has been an error in assigning a grade may formally protest and invoke the Grade Appeal Procedure. The grade appeal or other grievance procedure for students is itemized below and should be followed in all instances, ensuring each step is completed before proceeding. Continuing is unnecessary if resolution is reached at the end of any given step.

Students must initiate the appeals process no later than 30 days after the decision to be appealed is made. In case of a grade appeal, the appeals process must be initiated no later than 30 days after the grade is posted. As students follow the steps and contact the appropriate faculty and administrators, they are encouraged to use email as a written record. Please copy the appropriate department assistant to enhance follow-up.

Steps for Submitting Grade/Grievances

Step 1:
The professor should be contacted to discuss the grade disparity. The problem should be resolved at this level if possible. The student must appeal in writing to the professor, noting specific objections to the grade received or the problem encountered. If the matter is not resolved within 30 days after contact is made and the student wishes to continue the appeal process, they should proceed to step #2

Step 2:
The student must appeal in writing to discuss the matter with the Department's appropriate Program Director/Chair. Grade/academic grievances will not be permitted to proceed any further unless evidence of discrimination or a violation of rights can be demonstrated. If the matter is not resolved within 30 days after contact is made and the student wishes to continue the appeal process, they should proceed to step #3

Step 3:
Submit the grievance in writing to the Dean of HCAS. The Dean is the final arbitrator.

Administrative Grievances

Administrative grievances are related to academic policies and administrative actions. Grievance procedures must be initiated by submitting a Student Action Request (SAR) no later than 30 days after the end of the semester in which the grievance issue occurred. The student will forfeit all rights under the grievance procedure if each step described below is not followed within the prescribed time limit.

Administrative Grievance Process

All administrative grievances must begin at the first level of contact. Grievances brought to higher-level contacts without going through the appropriate administrative grievance procedure will be referred to the appropriate step in the process, thus delaying problem resolution. Students must initiate the appeals process no later than 30 days after the decision to be appealed is made. Students who are unsure of the appropriate university employee to contact about an administrative issue should communicate with their academic advisor.

If the university cannot resolve an issue, students may file a complaint with their respective state licensing authority. The following link provides contact information for each state agency and links to their grievance procedures: https://www.nova.edu/academics/forms/state-agencies-for-student-complaint-2.pdf.

Once all internal avenues have been exhausted, unresolved complaints may be filed with the Southern Association of Colleges and Schools Commission on Colleges, the University's regional accrediting agency. The following link provides information on its complaint policies and procedures: https://sacscoc.org/app/uploads/2020/01/ComplaintPolicy-1.pdf.

REGISTRATION

As part of the registration process, all students must complete the NSU Student Enrollment Agreement (SEA) each year or risk being dropped from their courses. A copy of the SEA can be viewed at https://www.nova.edu/registrar/forms/catch-the-sea-wave.pdf. A registration hold on a student's account does not prevent the student from completing the SEA. Students are encouraged to register online via SharkLink. Students who do not know their SharkLink username ID and password should visit https://nova.edu/resources/nsuidentity.html.

While students may register for and attend classes with a provisional admission status, financial aid funds cannot be disbursed until all admission requirements have been met. According to NSU's payment policy, by registering for classes, the student accepts financial responsibility for payment due at registration. If a student has a balance 30 days after the start of the semester, a hold and a $100 late fee will be placed on the account. The hold stops all student services, including but not limited to access to grades, transcripts, diplomas, and future registrations. It will remain in the student account until the balance has been paid in full.

During the open registration period, students should register via SharkLink for the fall, winter, and summer semesters and take advantage of the university's online degree-evaluation tools for guidance (see "Online Degree Evaluation Tools" section for more details). Students should register for all courses they intend to complete within a semester and not wait until the semester has started to register for courses in the term.

Registering early for the entire semester ensures the availability of seats in required classes. It allows the NSU Office of Student Financial Assistance to appropriately process and disburse the student's financial aid. An official grade will not be recorded, and credit will not be given to anyone who attends class as an unregistered student.

Holds

A bursar or academic hold may prevent students from registering. Students must contact the respective hold originator to resolve the hold before registering in SharkLink.

ONLINE DEGREE EVALUATION TOOLS

NSU's online degree evaluation tool, Degree Works, allows students to compare their completed coursework against the degree core and elective requirements published in the Graduate Program Catalog for the year they enrolled. These helpful reference tools help students track their progress toward degree completion and are available through SharkLink. Degree Works is available for all graduate students.

For information on Degree Works, visit the registrar's website at https://nova.edu/registrar.

REGISTRATION REQUIREMENTS FOR FINANCIAL AID ELIGIBILITY

For students to receive federal Title IV or state financial aid (grants, scholarships, student employment, and loans), they must be enrolled in a minimum number of courses required for degree completion (degree-applicable). Students may only receive financial aid for courses required for degree completion. Financial aid funds will only be disbursed to students who meet the minimum enrollment requirements for financial aid eligibility with degree-applicable courses. A student may maintain maximum financial aid eligibility while enrolled in non-degree-applicable courses if the student meets the enrollment requirements for each respective Title IV program with degree-applicable courses. For instance, a student must be enrolled at least half-time to be eligible for federal loans. Half-time for HCAS graduate programs is defined as three credits of coursework. Students enrolled in three credits of dissertation, thesis, or capstone research are considered full-time.

For more information about degree-applicable coursework, please visit https://nova.edu/registrar/degreeworks.html.

CLOSED CLASSES

The enrollment capacity for each class is carefully determined to reflect the physical limitations of the classroom or lab and the subject's most effective learning and teaching environment. Once a class has been filled and closed to further registration, students should meet with their academic advisor for help adjusting schedules and choosing alternative classes that meet degree program requirements.

DROPPING AND ADDING CLASSES

During the drop and add periods (the first week of class), students may modify their schedules by changing classes without any further academic implications. However, even during the drop and add period, dropping a class may result in a tuition charge, affect fees, or impact a student's financial aid. Students may withdraw from a class after the drop period has ended (see "Academic Calendars" section for deadlines). Dropping a course may result in a refund for tuition paid and will not negatively affect the GPA. However, students need to be cautious because dropping classes may affect the student's enrollment status, eligibility for financial aid, and loan deferment. If a student drops below half-time or full-time status (whichever was the basis for financial aid awarded), the student may become ineligible for grant aid, loans, and scholarships awarded before the drop. This may cause a reduction in certain types of financial aid and, consequently, result in a higher balance due by the student.

Students are directed to make their course selections based on their program curriculum requirements and scheduling needs, not based on the instructor. Course instructors may change without notice before or during the semester. Student petitions based on instructor preference will not be granted in such instances.

WITHDRAWAL FROM CLASSES

Students may withdraw from a class after the drop period has ended up to three weeks before the end of the semester. Please refer to the Academic Calendar section of this catalog for specific dates. Withdrawn courses will remain on student transcripts with a notation of W but will not affect the student's GPA. Before withdrawing from classes, students are advised to consult with their academic advisor to discuss academic standing implications. Financial aid recipients are strongly encouraged to speak with a financial aid counselor to avoid unwelcome charges and that the change in enrollment status may affect their immigration status and eligibility for student visas.

STUDENT CONDUCT: ACADEMIC INTEGRITY

Students should refer to the full Code of Student Conduct and Academic Responsibility in the NSU Student Handbook (https://nova.edu/student-handbook). NSU has established clear expectations regarding student conduct and academic responsibility. Significant disciplinary action can be expected when these standards are violated, including expulsion from the university. Students must abide by all university, college, and program rules and regulations and all federal, state, and local laws. Students are also expected to comply with the legal and ethical standards of their chosen fields of study. The office of the Dean of Halmos College of Arts and Sciences handles violations of academic standards.

Academic Integrity in the Classroom

The university is an academic community and expects its students to manifest academic integrity. Faculty members are committed to upholding the standards of academic integrity and do their utmost to prevent academic misconduct by being alert to its possibility. If academic misconduct is detected, the faculty member communicates with the student and takes appropriate grade actions within the scope of the course. Faculty members report all violations of academic honesty to their departmental chairs.

Academic leadership can impose institutional sanctions depending on the severity or reoccurrence of the academic misconduct. At their discretion, deans, associate deans, or department chairs may immediately suspend or dismiss students pending a hearing on charges of violations. Sanctions may include academic misconduct warning, academic misconduct suspension, or academic misconduct dismissal, including notation on the student's academic transcript. Students found responsible for violations of academic integrity can appeal the sanctions.

ACADEMIC STANDARDS

The following is an excerpt from the NSU Student Handbook (https://nova.edu/student-handbook):

The university is an academic community and expects its students to manifest a commitment to academic integrity through rigid observance of standards for academic honesty. The university can function properly only when its members adhere to established goals and values. Accordingly, the academic standards are designed to ensure that the principles of academic honesty are upheld.

The following acts violate the academic honesty standards:

1. Cheating: intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise

2. Fabrication: intentional and unauthorized falsification or invention of any information or citation in an academic exercise
3. Facilitating Academic Dishonesty: intentionally or knowingly helping or attempting to help another to violate any provision of this code.
4. Plagiarism: the adoption or reproduction of ideas, words, or statements of another person as one's own without proper acknowledgment

Students are expected to submit tests and assignments that they have completed without aid or assistance from other sources. Using sources to provide information without crediting the original source is dishonest. Students should avoid any impropriety or the appearance thereof in taking examinations or completing work to pursue their educational goals.

Students are expected to comply with the following academic standards:

1. Original Work:

Assignments such as course preparations, exams, texts, projects, term papers, practicum, etc., must be the original work of the student. Original work may include the thoughts and words of another author. Entire thoughts or words of another author should be identified using quotation marks. At all times, students are expected to comply with the university and/or academic program's recognized form and style manual and accepted citation practice and policy.

Work is not original when it has been submitted previously by the author or by anyone else for academic credit. Work is not original when it has been copied or partially copied from any other source, including another student, unless such copying is acknowledged by the person submitting the work for the credit at the time the work is being submitted or unless copying, sharing, or joint authorship is an express part of the assignment. Exams and tests are original work when no unauthorized aid is given, received, or used before or during the examination, re- examination, and/or remediation.

2. Referencing the Works of Another Author:

All academic work submitted for credit or as partial fulfillment of course requirements must adhere to each academic program's specific accepted reference manuals and rules of documentation. Standards of scholarship require that the writer give proper acknowledgment when the thoughts and words of another author are used. Students must acquire a style manual approved by their program and become familiar with accepted scholarly and editorial practices. Students' work must comport with the adopted citation manual.

At Nova Southeastern University, it is plagiarism to represent another person's work, words, or ideas as one's own without the use of a center-recognized method of citation. Deviating from program standards (see above) is considered plagiarism at Nova Southeastern University.

3. Tendering of Information:

All academic work must be the original work of the student. Knowingly giving or allowing one's work to be copied, giving out exam questions or answers, or releasing or selling term papers is prohibited.

4. Acts Prohibited:

Students should avoid any impropriety, or the appearance thereof, in taking examinations or completing work in pursuance of their educational goals. Violations of academic responsibility include, but are not limited to, the following:

- Plagiarism
- Any form of cheating
- Conspiracy to commit academic dishonesty
- Misrepresentation
- Bribery in an attempt to gain an academic advantage
- Forging or altering documents or credentials
- Knowingly furnishing false information to the institution Students in violation will be subject to disciplinary action.

Faculty members are responsible for assessing classroom conduct, including academic misconduct. Faculty members are required to report any incident of misconduct to their department chair and the college's office of the Dean. These reports are reviewed for institutional sanction, which is distinct from a grading consequence administered by the faculty member.

A student may appeal an academic misconduct sanction of suspension or dismissal. This appeal will only address the sanction and not whether academic misconduct took place. If students wish to address an academic misconduct report, they should follow this catalog's "Grade/Academic Grievances" section.

COST OF ATTENDANCE

The Cost of Attendance (COA) estimates the cost of attending NSU for the academic year. It is based on several factors: tuition and fees, food and housing, course materials, supplies and equipment, transportation, and personal expenses.

For the 2024-2025 COA for graduate degrees, please refer to the following web page: https://hcas.nova.edu/admissions/tuition-fees.html.

Military Discount: A 20% tuition discount is awarded upon verification to veterans, active military personnel, and the immediate family of active military personnel or veterans.

Explanation of Tuition Rates

Tuition and fee charges are automatically calculated when students register for classes, and students are expected to pay in full at the time of registration through SharkLink or their NSU eBill account. Detailed payment instructions and additional information on payment options are available on the Bursar's website at https://nova.edu/bursar.

FULL-TIME STATUS REQUIREMENTS

The following are the requirements for full-time student status at HCAS:

Ph.D. Full-Time Status Requirements

Ph.D. in Conflict Analysis and Resolution

- Six (6) credits per semester
- One (1) credit per semester for students who are enrolled in the doctoral seminar only or the dissertation course only

Ph.D. in Oceanography/Marine Biology

- One doctoral level class or enrollment in dissertation/thesis or qualifying exam.

Master's Full-Time Status Requirements

- Six credit hours minimum (3 credit hours minimum during capstone/thesis, culminating project, or qualifying exams)

VETERANS EDUCATION BENEFITS & INFORMATION

Department of Veterans Affairs (DVA) educational benefits are designated to provide eligible individuals with educational and career growth opportunities. Eligible veterans and their dependents should contact the Veterans Benefits Administrator office at (954) 262-7236, toll-free 800-541-6682, ext. 27236, Monday through Friday, between the hours of 8:30 a.m. and 5:00 p.m., or visit the office in the Horvitz Administration Building on the Fort Lauderdale/Davie campus. Detailed information regarding eligibility and processes can be found on the NSU Veteran's Education Benefits web page at https://nova.edu/financialaid/veterans. If you have additional questions concerning eligibility, contact the U.S. Department of Veterans Affairs (DVA) at 888-442-4551 or visit their website at https://benefits.va.gov/gibill.

Veterans Affairs Payment Policy

Per Title 38 US Code 3679 subsection (e) of the Veterans Benefits and Transition Act of 2018, Nova Southeastern University (NSU) will not impose a penalty on any student using veterans education benefits under Chapter 31 (Vocational Rehabilitation & Employment) or Chapter 33 (Post 9/11 GI Bill®) because of

the individual's inability to meet their financial obligations to the institution due to the delayed disbursement of funding from the Department of Veterans Affairs (VA). NSU will not:

- Prevent the student from attending or participating in the course of education during periods in which there is a delayed disbursement;
- Assess late payment fees if the financial obligation is fully funded by the Department of Veterans Affairs (VA);
- Require the student to secure alternative or additional funding for delayed disbursements;
- Deny the student access to institutional facilities and services (e.g., the University Center RecPlex, grades, transcripts, and registration) available to other students who have satisfied their tuition and fee bills.

Veterans Resource Center

The Mission of NSU's Veterans Resource Center (VRC) is to link veterans with university and community resources. In addition, the VRC provides a welcoming environment for student veterans to study, connect, and relax. The VRC is located on the second floor of the Rosenthal Student Center in Room #218. The room is open from 7:00 am to 10:00 pm., seven days a week.

For more information about NSU's Veterans Resource Center, call (954) 262-FLAG (3524) or email vrc@nova.edu. Students can also connect with the VRC at www.facebook.com/NSUVets or www.instagram.com/NSUVets.

ACADEMIC RESOURCES & STUDENT SERVICES

Academic Advising

Academic advisors provide students with confidential academic advising to ensure they receive the individual attention they need to succeed. Students must contact an academic advisor before registering for their first term.

Students should maintain regular contact with academic advisors throughout their academic careers at NSU. Students are also encouraged to discuss aspects of their education with faculty members and program administrators.

Career Development

The Career Development Office provides NSU students with the individual attention needed to reach their career goals. Students are coached on further exploring their major while developing a competitive resume and cover letter, refining individual interviewing skills, selecting an internship, applying to graduate school, and supporting overall career planning needs. In addition, students can access Handshake, a cutting-edge career platform that serves as a career one-stop-shop.

For more information about student career development opportunities, contact the office of Career Development at (954) 262-7201 or career@nova.edu. Additional information can be found at https://nova.edu/career.

Write From the Start Writing and Communication Center

The NSU Write from the Start Writing and Communication Center (WCC) is an innovative workspace where students, consultants, and faculty from all disciplines come together, in person and online, to discuss and develop writing and communication skills.

Located on the 4th floor of Alvin Sherman Library, the WCC offers all NSU students one-on-one assistance at any stage of the process, from brainstorming through final editing. WCC consultants help students develop and strengthen general writing and communication skills during face-to-face or online consultations.

Services include assistance on academic projects (essays, lab reports, theses, dissertations); digital projects (presentations, posters, infographics); professional projects (articles for publication); personal projects (creative writing); and oral presentations.

For more information or to make an appointment, students can visit the WCC website at https://nova.edu/wcc or call (954) 262-4644.

Disability Services

The Office of Student Disability Services provides information and individualized accommodations to ensure equal and comprehensive access to university programs, services, and campus facilities.
Information about requirements for requesting academic or facility accommodations, by any student enrolled at the university, is available online through the office website:
https://www.nova.edu/disabilityservices.

Verification of Absences

The Office of Student Disability Services can review medical and/or confidential documentation to verify absences due to student emergent medical situations or family emergencies. Documentation can be submitted to the office, through email at disabilityservices@nova.edu, or faxed to 954-262-1390. Please contact the office if you have any questions about the office's verification process. The office can be reached via email at disabilityservices@nova.edu or by phone at 954-262-7185. If students decide not to go through the office's verification process or students do not have documentation to submit depending on their situation, students may work with their professor(s) and/or department chair(s) to discuss their absence. For students who are considering a medical leave of absence or administrative break, please review the university's leave of absence policy,
https://www.nova.edu/registrar/policies/leave-of-absence-policy.html.

To obtain more information from the Office of Student Disability Services, please call (954) 262- 7185, email disabilityservices@nova.edu, or visit our website at https://nova.edu/disabilityservices.

Student Counseling

The Center for Student Counseling and Wellbeing supports students by offering treatment for anxiety, panic attacks, and depression; anger management; financial stress; social struggles; chronic illnesses; abuse; suicidal thoughts; break-ups and divorce; assault; and other areas affecting students' quality of life. In addition to the office hours listed below, a crisis hotline is available 24 hours a day, seven days a week, to provide support and counseling by phone. More information is available on the Center's website at https://hendersonbh.org/services/student-counseling/nova-southeastern-university.

Location & Hours of Operation

Location
3440 S. University Drive, Davie, FL 33328

Phone Numbers
Office: 954-424-6911 or 954-262-7050
Fax: 954-424-6915

Hotline: 954-424-6911 or 954-262-7050 (available 24 hours, 7 days a week)

Hours
Tuesday: 8:30 a.m. – 8:00 p.m.
Wednesday: 8:30 a.m. - 8:00 p.m.
Thursday: 8:30 a.m. - 6:00 p.m.
Friday: 8:30 a.m. - 5:00 p.m.

Suicide & Violence Prevention

The Suicide and Violence Prevention staff are devoted to creating a safety net at NSU, helping to prevent suicide and violence. The most effective ways to prevent suicide and violence are to know the warning signs, take them seriously, and help the individual access the appropriate resources. The only real risk is in doing nothing. More information is available at: https://www.nova.edu/suicideprevention.

Student Health Insurance

To protect the health and well-being of the NSU community, the university requires all students to maintain health insurance coverage. Therefore, when students register for classes, they will automatically be enrolled in the NSU Student Health Insurance Plan, and their student account will be charged accordingly.

The NSU Student Health Insurance Department will send regular emails to your @mynsu.nova.edu account to notify you of the charge and provide you with waiver information. For more information, please go to https://nova.edu/bursar/health-insurance.

ENROLLMENT MANAGEMENT & STUDENT AFFAIRS

Enrollment Management and Student Affairs (EMSA) officially communicates with students via their SharkLink and NSU email accounts. Students can access SharkLink at https://sharklink.nova.edu to complete the following tasks:

- Check their NSU email
- Access their financial aid information
- Request official transcripts and view unofficial transcripts
- View their student accounts
- Make payments
- Access their grades
- Register for and drop courses
- View their course schedule
- Access their online degree evaluation (CAPP)
- Obtain enrollment verification
- Change their primary and mailing addresses and phone numbers

- Apply for student employment jobs
- Sign the Student Enrollment Agreement (SEA)

The Office of Student Financial Assistance

The Office of Student Financial Assistance (OSFA) is dedicated to helping students make educated financial choices while attending college. The OSFA administers federal, state, and institutional aid programs such as grants, scholarships, federal work-study funds, and loans. To be eligible for these programs, students must complete the Free Application for federal Student Aid (FAFSA) at www.fafsa.gov. The NSU Federal School Code is 001509. For detailed financial aid information, please visit https://nova.edu/financialaid.

The Office of the University Registrar

The Office of the University Registrar offers various services to the university community. These services include but are not limited to, course registration, transcript processing, name and address change, loan deferment, enrollment and degree verification, grade processing, commencement, degree conferral, and diploma printing. For more information, please visit the Registrar's Office website at https://nova.edu/registrar.

The Office of the University Bursar

The Office of the University Bursar is responsible for billing students, collecting and depositing payments, sending invoices and receipts, distributing student educational tax forms, issuing refunds from dropped classes and excess financial aid funds, and verifying students' eligibility for financial aid. NSU Student Health Insurance is also housed within this office. For more information, please visit the Bursar website at https://nova.edu/bursar.

The Office of International Affairs (OIA)

The Office of International Affairs (OIA) is a base for the university's international initiatives, international student services, education abroad, and international risk management travel registration procedures. The OIA also provides ongoing assistance and support for all university community members engaged in campus internationalization, global partnerships and exchanges, and other globalization efforts.

- The Office of International Students and Scholars (OISS) provides immigration, orientation, counseling, and assistance to all new and continuing international students, visiting scholars, and faculty on and off campus.
- The Office of Education Abroad (OEA) provides comprehensive assistance to all students (domestic and international) who wish to travel abroad on any of the many international travel experiences offered at the institution, including summer semester and academic year study abroad programs, faculty-led travel study programs, international internships, and international service-learning opportunities.

The OIA is committed to welcoming international students, scholars, and their families while facilitating their transition to life at NSU. For further information, contact OIA at (954) 262-7240 or visit the website at https://nova.edu/internationalaffairs.

FINANCIAL ASSISTANCE

For students needing financial support, the university offers multiple forms of assistance, including financial aid, scholarships, and loans, as detailed below. More comprehensive information about these options can be found on the NSU Financial Aid website at https://www.nova.edu/financialaid.

To receive financial assistance, a student must continually meet Satisfactory Academic Progress (SAP) requirements established by the Department of Education. These requirements can be found at https://nova.edu/financialaid/eligibility/sap-standards.html.

Student Employment Programs

There are four student employment programs:

- Federal Work-Study (FWS)
- Florida Work Experience (FWEP)
- Nova Southeastern University Student Employment (NSE)
- Job Location and Development (JLD)

The NSU Student Employment and Job Location Development programs provide jobs to students regardless of financial need. FWS and FWEP are need-based and require the completion of the FAFSA. Students awarded FWS may participate in the America Reads/America Counts Programs, through which students serve as reading or math tutors to elementary school children. For more information on NSU student employment, including how to apply for jobs and the Student Employment Manual, visit https://nova.edu/financialaid/employment.

Scholarships

Each year, HCAS has scholarships available for graduate students. Prospective students should review the HCAS scholarship website at https://hcas.nova.edu/scholarships.

Loans

Graduate students may be eligible to receive aid from the following sources. Please carefully read the process and requirements for each below.

Federal Loan Programs

Federal Direct Unsubsidized Loan:
https://nova.edu/financialaid/graduate-professional/loans/unsubsidized-stafford.html

GRAD Plus:
https://nova.edu/financialaid/graduate-professional/loans/gradplus.html

Additional Loan Sources

Alternative/Private Loans:
https://nova.edu/financialaid/graduate- professional/loans/alternative-private.html

NSU Payment Plan:
https://nova.edu/bursar/payment/payment_plans.html

NSU STUDENT HANDBOOK

The NSU Student Handbook addresses general university student policies, including student life, student rights and responsibilities, university policies and procedures, and NSU resources. The NSU Student Handbook can be viewed at https://nova.edu/student-handbook.

ORIENTATION

A mandatory orientation session is held every fall and winter for incoming students to inform them about student services and opportunities, the facilities and library resources, and Ph.D., M.A., M.P.S., and M.S. program requirements. If students cannot attend the orientation in person, they must view the orientation information posted on NSU's Canvas. The program office must be informed if a student cannot attend the in-person orientation.

ACADEMIC DEPARTMENTS & DEGREES

Department of Biological Sciences

The goal of the Halmos College of Arts and Sciences' Master of Science in Biological Sciences Degree Program is to provide graduates with credible, holistic, and timely scientific skills and knowledge regarding key biological, ecological, and health issues.

On campus, graduate classes are held in both morning and evening formats and typically meet one to two times per week, with some meeting three times per week (MWF format and some online). Exceptions are field courses, which may entail several days of intensive study or weekend field trips. The department also offers online courses, including a fully online bioinformatics concentration.

M.S. Degree in Biological Sciences

The M.S. in Biological Sciences provides a varied curriculum necessary for the diverse interests of today's students. This rigorous program is designed to provide a foundation that can be applied toward entry into a Ph.D. program or professional school or as an entry point for professional careers in biology and healthcare.

Students in the M.S. in Biological Sciences will benefit from small class sizes, courses taught by faculty experts, and a sound academic foundation, resulting in increased analytical skills.

The maximum time limit for completing the M.S. program is nine years. M.S. students must petition the program office in writing for an extension of the time limit, which may be granted only under extenuating circumstances.

The M.S. in Biological Sciences offers three concentrations, which are detailed below:

1. Fully online bioinformatics concentration (16-month; 3-semester program)
2. Health studies concentration (12- month; 3 semester program)
3. Biology research option (capstone/thesis) (24-month; 6-semester program)

All concentrations are 30 credits over ten courses. All students entering the capstone/thesis concentration start on the capstone track and may join the thesis track if all requirements are met. Details of the curricula for each concentration are explained below.

M.S. in Biological Sciences: Fully Online Bioinformatics Concentration

The M.S. in Biological Sciences Bioinformatics concentration is a lock-step program beginning in the fall term. This fully online curriculum is a 16-month, 30-credit program with courses that take three semesters to complete. Students must complete the curriculum in the order set out in the curriculum plan.

This M.S. concentration heavily emphasizes computation, line command coding, and programming as it applies to biological problems and questions. Students will demonstrate proficiency in handling and analyzing biocentric data using computation, line-command coding, and programming in various programming languages. Students will apply these skills to biological problems and questions using big data analytics to solve contemporary biological problems. The curriculum is ultimately designed to prepare graduates for successful employment in the broad field of computational biology.

Learning Outcomes:

1. Demonstrate proficiency in handling and analyzing biocentric data
2. Construct line command and application coding in various programming languages
3. Understand how biological and genetic data impacts modern society and our daily lives
4. Navigate and apply diverse, modern biological databases and software
5. Apply bioinformatics and genomics methods to solve contemporary biological problems

All Bioinformatics Concentration students are assigned a faculty advisor at the program's start. To complete this concentration, the student must pass all courses and a standardized-styled comprehensive exam at the end of the Winter semester. There will be two opportunities to take the exam before graduation.

Curriculum:

For degree plans and detailed information about the curriculum, please see the M.S. in Biological Sciences program sheet in Appendix A and B.

M.S. in Biological Sciences: Health Studies Concentration

The M.S. in Biological Sciences: Health Studies concentration is a lock-step program. This concentration is a 12-month (3 semester), 30-credit program designed to better prepare graduates of undergraduate science programs for entrance into health-related professional schools. Courses for this concentration begin in the summer of each year. It offers the opportunity for students to enhance their academic records, to improve graduate entrance test scores, and to obtain a graduate degree. Students must complete the curriculum in the order set out in the curriculum plan.

A comprehensive examination is a requirement for graduation. It is given after all coursework is completed and is scheduled for the week after the winter semester final exam week. To be eligible for this exam, a student must have a minimum GPA of 3.0 with no more than nine credits of “C grades.” A passing grade must be achieved, and a second opportunity will be provided two weeks after the first attempt. The student may only attempt this exam twice.

To complete the concentration, the student must pass all courses, maintain a GPA of 3.0, and pass a standardized-style comprehensive exam at the end of the winter semester. When students start

the program at the beginning of the summer, they will choose the test prep course appropriate to their career goals as Kaplan offers test preparation for various standardized tests, e.g., MCAT, DAT, and PCAT.

Learning Outcomes:

- Demonstrate an in-depth knowledge of science as it relates to the normal and abnormal processes of the human body
- Demonstrate knowledge of current advances in medical research and their relationship to clinical practice
- Demonstrate ability in problem-solving and analytical thinking
- Demonstrate both practical oral and written skills necessary for a professional setting

Curriculum:

For degree plans and detailed information about the curriculum, please see the M.S. in Biological Sciences program sheet in Appendix A and B.

M.S. in Biological Sciences: Biology Research Option (Capstone/Thesis)

The M.S. Biological Sciences capstone/thesis option is designed to enhance students' education for jobs and careers in all fields of biology, including Ph.D. programs and professional medical programs. Students in this program may go at their own pace, with a minimum of 3 credits per term. Students may not take more than nine credits per semester. Students may request to take 12 credits in a semester under exceptional circumstances. Students are cautioned that courses within a term can affect financial aid and student employment.

This Biological Sciences concentration's thesis and capstone path culminates in creating a novel and significant piece of writing, ensuring that graduates can effectively communicate their scientific findings to the community.

All entering M.S. students are accepted into the capstone path. Additional proposal development for original research is required to enter the thesis path. A minimum of 30 credits is required to complete this concentration.

Learning Outcomes:

- Students will be highly knowledgeable in a broad area of interest within the biology field. The area of knowledge will differ according to individual interests.
- Students will be highly knowledgeable in a specific topic of biology (e.g., ecology, taxonomy, zoology, physiology, reproduction, and growth).
- Students will demonstrate proficient communication skills in a) writing and b) oral presentation.
- Students will have a superior understanding of the scientific method. The student will be able to formulate hypotheses, generate research questions, and apply the scientific method toward specific research goals and projects.

Curriculum

For degree plans and detailed information about the curriculum, please see the M.S. in Biological Sciences program sheet in Appendix A and B.

Requirements for Report of Progress

The report of progress is only required from each M.S. in Biological Sciences student registered for thesis, capstone, or Directed Independent Study (DIS) credits. It is due by the end of each registration term before a grade is issued. Not submitting the Report of Progress before the end of term will result in failing

the thesis, capstone, or Directed Independent Study (DIS) credits. *Defending students do not need to submit the report.*

The form must be submitted to the student's major professor for signature and comments and include the following:

1. Student's name and date
2. A brief synopsis of the work completed since the last report (for example, details of experiments conducted and literature reviewed)
3. Target date for thesis/capstone completion
4. Estimate of time spent on thesis/capstone work for the term
5. A list of problems experienced (if any)
6. Major professor's comments
7. Major professor's signature

Capstone/Thesis Information

Proposal

Before a thesis or capstone can be accepted, a proposal must be submitted to the chosen committee. The major professor and committee member(s) will review the proposal draft. The student may meet and discuss issues with the professor and committee. The committee members make a final decision as to whether the proposal is defendable. A proposal is only acceptable once it demonstrates that the student can produce a thesis/capstone that meets the criteria required by the department. A proposal will not be accepted if the style, presentation, and content are not the expected quality for the capstone/thesis. Please consult with program office for these details.

Copyright Information

As part of the online submission process, students must upload their paper into NSU's Institutional Repository, NSUWorks (https://nsuworks.nova.edu). Please review the copyright statements contained therein before submission. While entering text into the appropriate fields, please use a permanent email address since this will be the only contact form if someone requests permission to use or view your paper. Embargoes will only be approved for works published in a journal or if a grant stipulates an embargo.

Department of Chemistry and Physics

The Department of Chemistry and Physics houses the M.S. in Medicinal Chemistry, an exciting program that leverages the expertise of NSU's Halmos College of Arts and Sciences and the College of Pharmacy. Instruction for this two-year program occurs inside the classroom and in the laboratory. Graduates of the program will have extensive lab experience gained through research or an internship, resulting in more significant opportunities to advance their careers.

M.S. in Medicinal Chemistry

The M.S. in Medicinal Chemistry expands your knowledge of chemical principles and biopharmaceutics to help identify and solve chemical problems in research areas. In this two-year program, you'll learn how to design, synthesize, and examine biologically active pharmaceuticals, including therapeutically useful drugs, natural products, and toxins.

Learning Outcomes

- Students will expand their knowledge of chemical principles and biopharmaceutics to help identify and solve chemical problems in research areas.
- Students will learn how to design, synthesize, and examine biologically active pharmaceuticals, including therapeutically useful drugs, natural products, and toxins.

Curriculum

For degree plans and detailed information about the curriculum, please see the M.S. in Medicinal Chemistry program sheet in Appendix A and B.

Completion Policy Requirements and Guidelines

To complete the M.S. in Medicinal Chemistry, students must register for 35 credits of graduate coursework including their thesis or capstone project to complete the degree. Students should consult the information below, their faculty mentor, and the Program Director for more information on specific completion project requirements.

Thesis Option

Research: Thesis (9 credits)		
Course No.	**Course Name**	**Credit Hours**
MCMS 7200	Research in Medicinal Chemistry	6
MCMS 7300	Thesis in Medicinal Chemistry	3

Capstone Option

Internship: Capstone (9 credits)		
Course No.	**Course Name**	**Credit Hours**
MCMS 7000	Internship in Medicinal Chemistry	6
MCMS 7100	Capstone in Medicinal Chemistry	3

Department of Communication, Media, and the Arts

The Department of Communication, Media, and the Arts is an innovative, learner-centered department that delivers experiential, industry-driven programs. Students achieve academic excellence and professional distinction as artists, leaders, and communicators, and they share their talents with the community through production, performance, and research.

M.A. in Composition, Rhetoric, and Digital Media

The M.A. in Composition, Rhetoric, and Digital Media provides students with a foundation for conducting and presenting research, applying rhetorical theories, teaching writing, and producing digital media. Through specialized coursework and experiential learning in the history and theory of composition, rhetoric, and digital media, students develop expertise in researching and practicing writing in various professional genres. The CRDM program prepares students for careers in writing, publishing, media design and production, communication, public relations, teaching, and doctoral study in Composition and Rhetoric and related disciplines.

Learning Outcomes

The successful M.A. in Composition, Rhetoric, and Digital Media graduate is expected to:

- Demonstrate advanced knowledge of what effective writing is in a variety of rhetorical contexts.
- Evaluate writing curricula and pedagogical practices.

- Design successful digital media using rhetorically appropriate strategies.
- Produce and present original research based on the theories and methods applicable to composition, rhetoric, and digital media.

Curriculum

For degree plans and detailed information about the curriculum, please see the M.A. in Composition, Rhetoric, and Digital Media program sheet in Appendix A and B.

Completion Policy Requirements and Guidelines

The completion project represents the culmination of the student's work in the M.A. in Composition, Rhetoric, and Digital Media. The student must register for 18 credits of graduate coursework before declaring their completion project choice of exam, portfolio, or thesis. Each project entails specific coursework, advising, and approval requirements; the student should consult the project tables below, their faculty mentor, and the Director of Graduate Studies for more information on specific completion project requirements.

Exam Option

Exam Option	
Timeline	**Action**
Register for 18 credits	Student submits Completion Project Declaration Form
Week 7 of final coursework semester	Student submits Exam Option Request to the Director of Graduate Studies
Week 8	Director of Graduate Studies notifies student of Exam Option eligibility
Week 11	Student meets with the Director of Graduate Studies for exam preparation
Week 15	Student sits for Exam

If the student's exam score does not meet the minimum passing requirement, the student must enroll in 1 credit of WRIT 5995 Program Completion in Progress in the subsequent term (for a maximum of two terms) to proceed with re-examination. Re-examination will be available during week 7 of each term (week 6 in summer terms), as needed.

Portfolio Option

Portfolio Option	
Timeline	**Action**
Register for 18 credits	Student submits Completion Project Declaration Form
No later than one week before each semester of registered internship work	Student submits all completed and approved internship forms* to the Director of Graduate Studies and program administration
No later than Week 10 of defense semester	Student submits complete portfolio to faculty advisor & Director of Graduate Studies for defense readiness approval
No later than Week 12 of defense semester	Director of Graduate Studies notifies student and faculty advisor of defense eligibility
No later than Week 13 of defense semester	Student completes Defense

***Forms include Internship Request Form, Internship Agreement, and Offer Letter**

If the portfolio does not meet minimum program requirements, the student must enroll in 1 credit of WRIT 5995 Program Completion in Progress in the subsequent term (for a maximum of two terms) to meet requirements. Additional defenses must be completed no later than the end of week 7 of the term course (week 6 in summer terms).

Thesis Option

Thesis Option	
Timeline	**Action**
Register for 18 credits	Student submits Completion Project Declaration Form
Semester before beginning thesis coursework	Student secures thesis committee and drafts proposal
No later than Week 1 of first semester of thesis credits	Thesis advisor submits the committee-approved proposal to the Director of Graduate Studies
No later than Week 7 of defense semester	Student submits final draft of thesis for defense readiness approval to the thesis committee
No later than Week 11 of defense semester	Student completes Defense
No later than Week 12 of defense semester	Thesis advisor notifies student of their defense score

If the thesis does not meet the minimum program requirement, the student must enroll in 1 credit of WRIT 6000 Master's Thesis in the subsequent semester (for a maximum of one semester) to complete the remaining requirements.

Department of Conflict Resolution Studies

The Department of Conflict Resolution Studies (DCRS) is committed to academic excellence, cultural diversity, social responsibility, and reflective practice in the fields of sociology, anthropology, and conflict resolution. Through both undergraduate and graduate programs, we focus on the study of human behavior in societies, what social theories and research reveal about individuals, groups, institutions, and nations, and how parties achieve constructive agreements based on the principles of nonviolence, equity, dignity, and appreciation for human diversity. The department explores how people group themselves, behave in groups, and provides a learner- centered approach to practice and research to support improved social relations among individuals, groups, organizations, and nations. The academic environment in the department is multi-disciplinary, dynamic, and innovative, utilizing faculty expertise, student experience, learning technologies, and practitioners who are knowledgeable in peacebuilding skills and techniques.

Ph.D. in Conflict Analysis and Resolution

The Ph.D. program in Conflict Analysis and Resolution trains students in the skills and techniques of practice, interdisciplinary research, policy and program development, historical critique, cultural analysis, and theoretical foundations of the field. The mission of the doctoral program is to advance the study and practice of conflict analysis and resolution by mentoring and developing practitioners and scholars trained in theory, practice, research, teaching, and informed leadership in the field. Students pursue an in-depth study in the field of conflict resolution while drawing from a variety of theoretical perspectives and the knowledge of an experienced, interdisciplinary faculty.

The 76-credit hour degree program prepares graduate students for careers as advanced practitioners, college and university educators, researchers, theoreticians, consultants, program evaluators, and organization administrators. The Ph.D. program is offered in both residential and distance learning formats. These flexible formats allow mid-career working adults and those unable to attend the residential program to study conflict resolution in a creative, rigorous, and structured fashion. The distance learning Ph.D. program is one of the few offered nationally in the fields of peacemaking and conflict resolution. Students enrolled in the distance learning program participate in Residential Institutes on the main campus at least once yearly and in online courses.

In addition to core courses, students may pursue concentrations in the following areas (though a concentration is not required):

1. Interpersonal Conflict
2. Community-based Conflict
3. Conflict in Organizations
4. Global Conflict

Learning Outcomes

The Ph.D. program focuses on improving skills for reflective practice, understanding and mastering qualitative and quantitative research knowledge and analysis, developing professional leadership skills, and producing publications of quality and substance.

Curriculum

For degree plans and detailed information about the curriculum, please see the Ph.D. in Conflict Analysis and Resolution program sheet in Appendix A and B.

Practicums

To complete the Ph.D. in Conflict Analysis and Resolution, students must complete two courses from the following four options: CARD 6180 Internship, CARD 6624 Advanced Practicum, CARD 6625 Global Practicum, or CARD 7510 Teaching and Training Practicum. Students are encouraged to consult the Academic Program Coordinator to determine which options best fit their career goals.

Internship placements have been established in various settings, such as schools, prisons, court systems, parks, human services agencies, community organizations, and corporations. Students are also encouraged to explore and initiate an internship setting specific to their interests. The student finds an appropriate site, and the Academic Program Coordinator will assist the student in calling the site and negotiating for a placement if necessary.

The Academic Program Coordinator can be consulted for detailed information during each term and at the Residential Institute. Students preparing for internship are encouraged to attend one or more sessions in person or through telephonic appointments with the Academic Program Coordinator to assist with practicum placements.

Students should visit https://hcas.nova.edu/departments/conflict-resolution-studies/resources for the Practicum Handbook and related forms.

Examinations and Evaluations

There are three program evaluations that students must pass in the course of their doctoral studies. Each is described briefly below, and more information is provided at hcas.nova.edu/departments/conflict-resolution-studies/resources.

1. Writing Assessment Requirement

Doctoral students will undergo a writing assessment during the first fall term in the program. If students are found to need skill building, they will be required to pass a graduate-level writing course (such as CARD 6620 Academic Writing or a comparable class). The course must be completed before the student's preliminary review. This course will count as an elective.

2. Preliminary Review

The preliminary review takes place after accumulating at least 18-24 credits. The preliminary review determines whether the student should continue in the doctoral program. Before the preliminary review, the student must complete the required activities on the DCRS PhD Passport, which is provided at the start of the student's first term. Before the preliminary review interview, the student will submit specified materials for review, including but not limited to sample term papers, a CV, and a reflection form.

The preliminary review meeting is an approximately 30-minute discussion between the student and a DCRS administrator. Successes and challenges will be discussed. These discussions will include a review of grades and any other relevant behavioral or performance-based issues reported by faculty, students, or the administrative staff. Students should come prepared to discuss what they have learned and how they apply it in their work, dissertation preparation, or relevant practice areas.

Students with a "C" in any class during the first year will remain on preliminary review status. They may be required to take additional classes such as writing or ESL, obtain a tutor, or take other remedial action. They must also work with the faculty to demonstrate evidence of progressive improvement during each successive term. Students with serious academic issues such as academic probation based on grades, poor writing, poor attendance, or other serious issues may be academically dismissed from the doctoral program because of this preliminary review.

Students who have shown disruptive, hostile, dangerous, or other questionable behavior during the first year will be confidentially counseled by their advisor, a department administrator, the Associate Dean of Student Affairs, additional faculty as appropriate, and any other person deemed relevant to the discussion. This process may be initiated at any time, as needed. It does not need to wait until the preliminary review process. Such behavior may result in dismissal from the program.

Following the preliminary review meeting, the student will receive one of the following four outcomes:

1. Pass review, effective immediately
2. Pass review, with recommendations for changes

Please Note: To obtain one of these recommendations, all grades must be B or higher, with no incomplete grades. Courses with a grade of C may have to be retaken.

3. Repeat Preliminary Review, with continued enrollment contingent on the student satisfying one or more specified criteria during a specified time.
4. Dismissal from the doctoral program

3. Qualifying Exam

The qualifying examination is a written examination given after students have completed all the required coursework and before beginning dissertation hours. Successfully completing the qualifying examination is required to move to advanced standing and begin dissertation research. Doctoral Seminar, a one-credit course, is offered to help students prepare for the exam and should be taken in the student's final term of coursework. In addition, some students find it helpful to form study groups. Students are encouraged to begin to prepare for the exam well in advance.

Qualifying exams are given three times per academic year, once per term. The exam is available on-line and takes place over three weekdays. Students may take the examination on NSU's campus or anywhere else. Students can access the exam at a specific time on the morning of the first day, and their answers will be due 72 hours later. Students may use whatever materials they choose but are expected to work alone. They are expected to write the exam answers in their own words and to use appropriate citations when applicable. Exam answers will be submitted to Turnitin.com to check for proper citation. The exam consists of a single question; the answer will integrate theory, research, and practice aspects of conflict analysis and resolution.

Teams of faculty members grade the exam answers. Students are assigned an examination number. Thus, faculty members do not know whose answers they are reviewing. Students' answers are evaluated on the substantive content, logical and coherent style, and relevant use of class and other academic material. Students who receive a failing grade from the team of faculty graders may retake the examination up to three times. However, students must prepare and wait until the subsequent examination is offered. Following the failure of the exam, faculty may require that a student retake a particular class, prepare a special written assignment, or perform other remedial tasks before the exam can be taken for the second time. After three consecutive failures, the student will be dismissed from the doctoral program. A failure to submit after accessing the exam will be counted as an exam fail. Please visit the DCRS Students Resources page: https://hcas.nova.edu/departments/conflict-resolution-studies/resources to view practice questions for the qualifying examination.

After students are registered for the qualifying exam by the Program Manager, they should register for CARD 7901: Dissertation Preparation. Upon passing the qualifying exam, students have achieved dissertation status.

Dissertation Chairs and Committees

A dissertation committee for all doctoral students will comprise at least three members, one of whom will serve as the dissertation chair. The dissertation chair must be a full-time DCRS faculty member. At least one other committee member must be a full-time HCAS faculty member. A student may have one or more outside members on the committee if methodological or a substantive topical issue makes such membership advisable and is approved by the dissertation chair. All members who are not DCRS faculty must have an earned doctorate and must provide copies of their credentials to the department. Dissertation committee members may not be from the student's family or personal friends or have graduated from HCAS within the past three academic years.

Before the end of CARD 7901, students must select their dissertation chair and complete the appropriate form, which is available online on the DCRS Students Resources page.

Registering for Dissertation

Students are required to complete 12 dissertation credits. Dissertation students register for three credits per term, beginning with CARD 7901, the Dissertation Preparation course, and continuing with CARD 7900 Dissertation courses. If a student is still in progress after 12 credits, the student registers for one credit per term until they complete and successfully defend their dissertation, turn in their final document to the department, and register their dissertation simultaneously with ProQuest, UMI. Registration after final defense shall, if needed, only be for one additional term subject to exceptions provided by law. If the student fails to complete the requirements within the additional term, the student will be automatically withdrawn from the program. If a student receives a NP (No Progress) grade while registered for Dissertation, that term will not count toward the required 12 dissertation credits. If, for some reason, the student cannot continue working on their dissertation, they must apply in writing for a Leave of Absence. If they request a leave for longer than a term, it may not be possible, upon their return, to continue with their original dissertation chair.

Dissertation Proposal

The doctoral candidate will defend the dissertation proposal before their full dissertation committee. All committee members must agree that the proposal is ready for defense before the defense can be scheduled. Proposal defenses may be performed using any appropriate and relevant technology, depending on the committee members' location and the student. The student can defend their proposal in person, via telephone or video conferencing. Please see the Dissertation Proposal Guidelines and related forms on the DCRS Students Resources page: https://hcas.nova.edu/departments/conflict-resolution-studies/resources.

Final Dissertation

Final dissertation defenses may take place during each of the three academic terms. The final day a student may hold the final dissertation defense within each term is the Friday two calendar weeks before the last day of the term. To participate in the June commencement ceremony, students must have their final dissertation defense notice sent out by May 1.

After the student has passed the final defense and completed all required revisions to the satisfaction of the dissertation chair, the student must submit the document to the Program Director for a format review. Upon passing the format review, the student will receive information on submitting the dissertation to ProQuest. Before degree conferral, the student must submit one pdf file of the final dissertation, including the signed approval page. Students should refer to the Dissertation Guidelines on the DCRS Students Resources page: https://hcas.nova.edu/departments/conflict-resolution-studies/resources for detailed information.

Degree Completion Requirements

Students must comply with the following requirements to graduate with their Ph.D. in Conflict Analysis and Resolution:

1. Earn a minimum of 76 credit hours
2. Pass all course work with 3.5. cumulative GPA or above
3. No grade lower than a “C-” is permitted; only one “C” grade (C+, C, C-) is permitted.
4. Successfully defend dissertation
5. Complete the final version of the dissertation and submit it to ProQuest

6. Apply for and receive degree conferral
7. Complete all requirements above within the stated time limit of the program

Degree Completion Timeline

The Ph.D. in Conflict Analysis and Resolution can be completed within a maximum time frame of seven years. If a student has not graduated after reaching the seven-year mark, they must apply for an extension and receive approval from the Program Director. Approval from the Program Director must be obtained for each subsequent extension until the ten-year mark has been reached, subject to such exceptions as provided by law. Once students pass the ten-year mark, they will be automatically dismissed from the program. Once students begin their dissertation, they are considered full-time when registered for at least three credit hours per term. After taking 12 credit hours of dissertation, students may enroll in one dissertation credit hour per term and still be considered full-time in the program. Students must continually be enrolled to remain active in the program. If a student cannot take classes due to unforeseen circumstances, they must apply for a Leave of Absence before the end of the semester in which they are in status. Students can request a Leave of Absence for no more than three terms. Obtaining a Leave of Absence does not extend the time a student has to complete the program.

A student who has not registered for more than three consecutive terms is considered withdrawn from the program and must reapply to request readmission to the program. If approved for readmission, the student must be continually registered to remain in good standing in the program. The absence does not extend the total time in the program without leave.

M.S. in Conflict Analysis and Resolution

The M.S. in Conflict Analysis and Resolution is designed to train reflective professionals in practicing, designing, and evaluating various conflict resolution applications. The M.S. program focuses on pragmatic approaches to solving problems inherent in human social relations. Students are exposed to various techniques and strategies to help people achieve improved relations and resolve conflicts that arise in many personal, professional, organizational, and social environments. The M.S. program consists of a 12-course (36 credits) sequence that includes conflict resolution theory, practice skills, field placement, research design, and program evaluation.

Program Formats

The M.S. program is offered in both residential and distance learning formats. These flexible formats allow mid-career working adults and those unable to attend the on-campus program to study conflict resolution in a creative, rigorous, and structured fashion.

Students may enroll full- or part-time, taking three to nine credit hours per term. Students who attend full-time can expect to complete the program in 15 months. Part-time students will complete the program in 2 years. Maximum enrollment time is five (5) years. Summer attendance is mandatory.

Students taking online classes must attend two Residential Institutes (RI) per academic year. Each RI is five days. Currently, the RIs are held in February and September/October.

Please visit https://hcas.nova.edu/departments/conflict-resolution-studies/ri for current information.

Curriculum

For degree plans and detailed information about the curriculum, please see the M.S. in Conflict Analysis and Resolution program sheet in Appendix A and B.

Practicum

The practicum experience is designed to allow students to utilize conflict resolution methodology and theory in diverse professional settings. Students will have the opportunity to apply theoretical concepts within a practical framework.

To complete the M.S. in Conflict Analysis and Resolution, students must complete Practicum I, including the accrual of at least 65 hours of practicum. Students may elect to complete Practicum II as an elective. Students are responsible for documenting practicum hours and must have these hours verified and signed by an on-site supervisor.

Practicum provides a community placement for students to develop and refine practitioner skills. Using the Practicum experience, students can apply theoretical concepts within a practical framework under the supervision of an on-site supervisor.

Please consult the Academic Program Coordinator and Practicum Professor for detailed information. One or more Practicum Advising sessions are scheduled each term and at every Residential Institute. Students not yet registered for practicum courses are encouraged to attend one or more sessions. Students may also seek individual in-person or telephonic appointments with the Academic Program Coordinator for assistance with practicum placements.

For the Practicum Handbook and forms, please visit the DCRS Student Resources website: https://hcas.nova.edu/departments/conflict-resolution-studies/resources.

Writing Assessment and Requirement

Master's students will undergo a writing assessment during the first fall term in the program. If students are found to need skill building, they will be required to pass a graduate-level writing course (such as CARM 6620 Academic Writing or a comparable class). This course will count as an elective.

Master's Thesis Option

A student may write a research thesis. The thesis is six credits and counts as two electives. Instead of the electives offered in the fall and winter terms of the second year, thesis students register for master's thesis. Entrance into the thesis track is not automatic; students must meet eligibility requirements. Please contact the department for further details.

Conflict Analysis and Resolution Dual Degree Program

The Department of Conflict Resolution Studies will accept credits from the J.D. program offered through the Shepard Broad Law Center at NSU and apply them toward the M.S. or Ph.D. in Conflict Analysis and Resolution.

1. M.S. in Conflict Analysis and Resolution/J.D.
2. Ph.D. in Conflict Analysis and Resolution/J.D.

The M.S. in Conflict Analysis and Resolution will accept nine credits from the law program, and the Ph.D. program will accept six credits. Students must complete both programs to obtain the dual credits. For students in M.S. /J.D. and Ph.D. /J.D. programs only; the credit transfer will apply toward elective courses.

Students must seek admission independently to the Department of Conflict Analysis Resolution housed in Halmos College of Arts and Sciences and the Shepard Broad Law Center.

Department of Humanities and Politics

The Department of Humanities and Politics in the Halmos College of Arts and Sciences aims to help students better understand their world through courses and degrees in academic disciplines focused on domestic and global affairs. Courses explore areas of study such as history, philosophy, legal studies, international studies, national security, and political science and are offered in the traditional classroom setting and online. Included among courses offered by the department are independent studies, internships, and study abroad programs.

M.S. in National Security Affairs and International Relations

The M.S. in National Security Affairs and International Relations (NSAIR) in the Department of Humanities and Politics is designed to provide students with theoretical, research, and applied skills in the emerging national security affairs academic field. Students in this program will build a core understanding of critical issues informing the field of national security today, including the assessment and analysis of the threat of terrorism in the U.S. and beyond and the analysis of intelligence collection. Students will also develop a deep understanding of the international context in which U.S. national security issues are shaped.

The program begins with a core of 7 courses (21 credits). Pedagogically, the program core focuses on building the critical analytical skills graduates need to succeed professionally and academically in national security affairs. The ability to critically analyze intelligence information and global security issues, interpret historical and contemporary issues informing the field, and perform textual analyses defines the program core's most important learning outcomes.

After completing the program core, students must complete 15 coursework credits from the available electives list. Most elective offerings were explicitly developed for the national security and international relations program, with a small number drawn from closely related fields. The elective list contains courses that emphasize domestic security and courses with a broader international focus, resulting in sufficient breadth of subject matter to allow students to tailor their choices around particular academic or professional interests.

Students interested in Cybersecurity can choose to take a specific concentration in this area. Students who choose this option must complete nine credits from the Cybersecurity concentration and six credits from the elective list. Before choosing this option, students must secure permission from the Department of Humanities and Politics. After a consultation, it will be determined whether the student can enter the Cybersecurity concentration or if additional foundation courses are required to enter and successfully complete the concentration.

Learning Outcomes

The successful M.S. in National Security Affairs and International Relations graduate is expected to:

- Evaluate the domestic and international implications of U.S. national security policy
- Analyze critical historical and contemporary issues in U.S. national security
- Apply theoretical approaches to understanding U.S. foreign policy, international relations, global institutions, and the practices of foreign powers.

Curriculum

For degree plans and detailed information about the curriculum, please see the M.S. in National Security Affairs and International Relations program sheet in Appendix A and B.

Program Formats

The NSAIR program aims for convenience and accommodation by utilizing the online and campus-based course delivery formats. We know many of our students are already engaged in work in the field of national security, and this may preclude them from participating in residential classes. Therefore, the program is designed in an online or hybrid format. Students applying to the hybrid M.S. in National Security Affairs and International Relations must register for at least three credits of campus-based coursework each fall and winter.

NSAIR students are not required to attend Residential Institutes (RI) on the Fort Lauderdale campus. However, they are encouraged to attend and participate in the event. Currently, the RIs are held in February and late September/October. Please visit the following for current information: hcas.nova.edu/departments/conflict-resolution-studies/ri.

Students may enroll full or part-time, taking six to nine credit hours per term. Students who enroll in nine credits per term may complete the program in four terms. Part-time students can complete the program in 2 years. Unless requesting a Leave of Absence, all students must register for three terms per year.

Practicum/Internship

A practicum/internship is not required in the NSAIR program but may be selected as an elective. The department is available for assistance and advice regarding practicum/internship. It is taken as a class, and students select a field site or professional setting to work in during the same term as the class. Students interested in exploring this option are recommended to consult with the department chair or director of graduate programs early in their study.

Examinations, Evaluations, and Thesis Option

In addition to completing all course work, students must EITHER a) pass a comprehensive examination administered by the National Security Affairs and International Relations Program or b) complete a six-credit, directed thesis option.

When a student has completed all coursework, has maintained a minimum of 3.0 GPA with no "incomplete" grades, and is a "student in good standing" with no disciplinary actions pending or disciplinary tasks to complete, the student will be eligible to take the comprehensive examination. Alternatively, when a student has completed all other coursework in the program, has maintained a minimum of 3.0 GPA with no "incomplete" grades, and is a "student in good standing" with no disciplinary actions pending or disciplinary tasks to complete, the student will be eligible to begin the directed thesis option.

The comprehensive exam assesses the student's ability to integrate the knowledge and skills gained through coursework. It tests the student's written ability to critically analyze and apply course-based knowledge to various issues. The comprehensive exam will be administered in two parts. Part one will focus on historical and theoretical knowledge acquired through coursework. In contrast, part two will test student's ability to apply knowledge and skills acquired through coursework to hypothetical security situations. The comprehensive exam will be scored like all major assignments in the program, using a rubric and assessing students' competencies regarding program outcomes. Students must receive a 70% or higher grade to pass the comprehensive exam. The comprehensive exam is a graduation requirement. Students who score below 70% on this requirement must retake the comprehensive exam. The comprehensive exam can be taken a maximum of three times. Students who cannot pass it in three

attempts will not graduate. The comprehensive exam is offered three times yearly: in January, May, and August/September. Faculty members are assigned to review the answers. Students are assigned an examination number, so faculty members do not know whose answers they are reviewing. To fail a question, two faculty reviewers must award a failing grade.

The directed thesis is a capstone on the student's experience in the National Security Affairs and International Relations program. As such, preparation for this course begins on the student's first day in the program. The theories, research methods, analytical skills, and substantive knowledge acquired by the student through the master's curriculum provide the foundation for this thesis project. Working under the direction of a designated faculty member in the program, students will be responsible for developing and planning an innovative project, crafting a viable thesis, engaging in research using appropriate primary and secondary resource material, and executing a polished work of analysis that contributes to knowledge in the field. In addition to submitting a written thesis, students must offer an oral defense of their project. Subject to departmental approval, students may undertake the directed thesis as two three-credit options spread out over two consecutive terms or as a single six-credit option taken in one term.

Degree Completion Requirements

To be eligible for degree conferral, NSAIR students must have completed all coursework and either passed the comprehensive examination or completed the thesis option. In addition, they must have a 3.0 GPA with no "incomplete" grades and be a "student in good standing" with no disciplinary actions pending or disciplinary tasks to complete. NSAIR students may participate in the June graduation ceremonies if they have completed all coursework, taken their comprehensive examination, or completed their directed thesis, even if they have not received their grade for the exam or the thesis. Students must complete all coursework and pass the comprehensive exam or complete a six-credit thesis within five years of starting the program.

Department of Marine and Environmental Sciences

The Department of Marine and Environmental Sciences includes the graduate programs described below.

Ph.D. in Oceanography/Marine Biology

The Ph.D. degree consists of upper-level course work and original research on a selected topic of importance in the ocean sciences. Courses consist of required general core courses (which can be transferred in from qualified M.S. courses), elective courses, as well as tutorial studies with the major professor. Students in this Ph.D. program can focus on either physical oceanography or marine biology.

Learning Outcomes

A successful recipient of the Ph.D. in Oceanography/Marine Biology is expected to:

- Understand basic marine biological, chemical, geological, and physical processes to a level sufficient to communicate and collaborate with experts in those sub-disciplines and to be able to apply this knowledge to issues in research and resource management
- Apply the scientific method to define, investigate, and evaluate hypotheses in at least one of these sub-disciplines

- Conduct (as guided by, and to the satisfaction of, the doctoral committee and NSU's Halmos College faculty) advanced, original, and independent research that adds to the body of oceanographic knowledge in one or more sub-disciplined areas.
- Communicate scientific results and conclusions clearly and logically in a written dissertation and scientific presentations and publications.

Curriculum

For degree plans and detailed information about the curriculum, please see the Ph.D. in Oceanography/Marine Biology program sheet in Appendix A and B.

Academic Course Approvals and Transfers

For up-to-date information, please see the department website at: https://hcas.nova.edu/degrees/doctoral/oceanography-marine-biology.html.

Research Credits

At least 24 credits of the Ph.D. must consist of Dissertation credits (OCGY-8000). The candidate may not register for dissertation credits until the research proposal is successfully defended. Before this defense, the student may register for Directed Study credits (OCGY-0799). After faculty acceptance of the research proposal, the student must register for at least three Dissertation credits (OCGY-8000) per term until completion of the degree.

Ph.D. Dissertation Information

Committee

The candidate's Ph.D. committee consists, at a minimum, of four people, at least three of whom must be Halmos College of Arts and Sciences (HCAS) faculty and one from outside the HCAS. The committee monitors all phases of the candidate's progress. The committee is formed before acceptance or within two terms of admission.

Proposal Defense

Before research relevant to the Ph.D. can begin, a candidate must produce a detailed research proposal under the guidance of the major professor and supervising committee members. Please consult with the program office for more detailed information.

Proposal Submission Directions

The following are the directions to upload the proposal into NSUWorks:

1. Create a new account at https://nsuworks.nova.edu. The username and password can be unique from the myNSU Identity.
2. Once the account is created, log out of the system and visit https://libguides.nova.edu/hcas-ETD-submission-guide.
3. If a committee member is not an NSU member, please include their email address with the proposal submission.
4. Inform the program office that you have successfully submitted the proposal.
    a. Committee members will be sent automated emails to go in and approve the proposal.
    b. Once the proposal is approved, the student will be notified that they can register for dissertation credits.

Qualifying Examination

Within six months to a year after admission, the candidate will complete a qualifying exam before their committee to determine basic knowledge and deficits to be corrected by coursework. This test is used to tailor the student's curriculum. It is not graded and does not determine final candidacy. The qualifying examination may be taken directly after the proposal defense.

Comprehensive Examination

The examination consists of written and oral phases. The written exams, taken on completion of formal course work, are administered by the major professor and consist of questions submitted by each committee member. The candidate is allowed a day to answer each member's questions.

The exam takes at least four days. The candidate is informed of the written examination results within one week of completion. At that time, the committee determines if the answers to the written portion warrant further examination, in which case an oral exam is scheduled. The student normally takes the oral examination within two weeks of this notification.

Dissertation Defense

Upon completing the dissertation to the major professor's satisfaction, it is formally submitted to the other committee members. Before a reservation request, the candidate must communicate a defense date with all committee members. Before the reservation request, the dissertation must be approved by all committee members and the department chair. No defenses will be held in between semesters. Please consult with program office for detailed information.

Information regarding dissertation requirements can be found through the Oceanographic Campus Library at https://libguides.nova.edu/hcas-ETD-submission-guide.

M.P.S. in Environmental Sciences

The M.P.S. in Environmental Sciences is a 30-credit program which provides beside a solid background in environmental science as well as practical and managerial skills that are required to solve problems and advance in the professional field surrounding environmental issues. The

M.P.S. is designed to provide professionals with a solid graduate level education, delivered in an attractive and time-efficient manner. The curriculum consists of related subject matter courses and does not require a thesis or capstone paper.

The M.P.S. consists of a core of courses that provide highly relevant baseline knowledge of the marine and environmental sciences. Specialty courses are provided that are relevant to the core fields. This degree provides the graduate with the practical skills to formulate, abstract, analyze and solve problems typically encountered by marine and environmental scientists, educators, government officials, engineers, and other professionals. A graduate will be prepared to enter the marketplace and be able to pursue a career in science, education, industry, or business.

Curriculum

For degree plans and detailed information about the curriculum, please see the M.P.S. in Environmental Sciences program sheet in Appendix A and B.

M.S. in Marine Science

Everything that humans do impacts marine ecosystems, and in turn, marine ecosystems impact humans' lives. Nova Southeastern University's M.S. in Marine Sciences program allows you to dive deep into the study of marine systems, learning about various special topics, including everything from shark research to coral reef reservation.

The M.S. in Marine Sciences allows three concentrations:

1. Marine Biology Concentration
2. Coastal Zone Management
3. Marine Environmental Sciences

As a joint option, students may combine two concentrations. The M.S. in Marine Science degree requires a minimum of 36 total credits, nine credits of core/required courses, 18 credits of electives in the concentration, three credits of electives outside of your concentration, and a minimum of six capstone or thesis credits.

Course requirements are the same for thesis and capstone tracks. Students may switch from the capstone to the thesis track with the support of an HCAS faculty member to advise on a specific research project.

Curriculum

For degree plans and detailed information about the curriculum, please see the M.S. in Marine Science program sheet in Appendix A and B.

M.S. in Marine Science Capstone/Thesis Information

Proposal

Before a thesis or capstone can be accepted, a proposal must be submitted to the chosen committee. The major professor and committee member(s) will review the proposal draft. The student may meet and discuss issues with the professor and committee. The committee members make a final decision as to whether the proposal is defendable.

If the proposal is approved, the student can submit their final proposal online through NSUWorks HCAS Proposal Review. From there, the student's committee members must log in and approve the student's proposal. After receiving approval from all committee members in NSUWorks, the Departmental chair will review the proposal for approval. When the chair approves the proposal, an email will be automatically generated, alerting the student that the program office has accepted their proposal.

Students should not register for capstone/thesis credits until they receive full approval from the program office. The proposal is a demonstration by the student and the involved faculty that the student is ready to produce a capstone/thesis that will allow graduation according to the standards of HCAS. This forms the basis of an understanding that the faculty involved (including the department chair, who has final signing authority) will allow graduation if the student produces a document with agreed-upon quality and content.

To avoid surprises and undue delays to a student's graduation, a proposal is only acceptable once it demonstrates that the student can produce the thesis/capstone and meet the high-quality criteria required by the department. Fairness to students and committees and maintaining academic integrity is the utmost concern.

A proposal will not be accepted if the style, presentation, and content are not of the same quality as would be accepted in the capstone/thesis. This is because it may give the student a wrong impression of what is acceptable as a capstone/thesis, leading to unnecessary delays at the submission stage. Therefore, the proposal should be seen as a "mini-capstone/thesis" at the same stage as the blueprint for the work that will be done in the capstone/thesis.

The program chair must approve the proposal at least two weeks before the start of each term. Proposal approval to begin research credits in the Winter semester is urged to submit their proposal before Winter closure to ensure a timely review of their submitted work.

Information regarding thesis requirements can be found through the Oceanographic Campus Library at https://libguides.nova.edu/hcas-ETD-submission-guide.

M.S. in Marine Science: Capstone Track Information

Definition of a Capstone

A capstone is a scientific manuscript based on a comprehensive literature search, review, and synthesis of the chosen topic. It is like a thesis since data need to be acquired and analyzed within the framework of a scholarly article, except that these data can be acquired from literature. In some instances, a study subject may not lend itself to quantification.

In such a case, the argument for the chosen approach in the proposal must be as clear and convincing as any quantitative argument.

Carrying out a capstone is possible with agreement from a major professor; typically, capstone students find a major professor by approaching faculty in the student's area of interest. Students will be assigned a capstone advisor if they have difficulty finding one. Before beginning a capstone and registering for capstone credits, the student must write a proposal approved by the student's major professor, committee, and the Department Chair. The approval process takes place via submission of the proposal through https://nsuworks.nova.edu.

Before starting a capstone, students should read some completed capstone projects in the library. After choosing a topic, students must check that the subject area is novel and has not been dealt with by a previous capstone. Once the capstone proposal has been approved, M.S. capstone students sequentially register for and complete at least six capstone credits for Marine Science or nine capstone credits for Biological Sciences each succeeding term until the capstone is complete and successfully defended. Sequential registration continues until the capstone is finished. If a student fails to register for any given term without written approval by the Chair, missed credits must be made up before graduation, usually during the next term of registration. It should be noted that while a minimum of six (Marine Science) or nine (Biological Sciences) capstone research credits are required, more than this may be necessary to complete M.S. research.

Committee Composition

Each M.S. student will have an advisory committee. To obtain the maximum benefit, it is to the student's advantage to form this committee early in their program.

The capstone committee will consist of at least two members, one of whom must be a Halmos College Natural Sciences and Oceanography faculty member. The major professor and at least one other

committee member must have a terminal degree in a field relevant to the capstone topic. Other members of the committee must ordinarily have a terminal degree.

M.S. in Marine Science: Thesis Track Information

Definition of a Thesis

A thesis is an original contribution to knowledge from systematically studying a significant problem or issue. It requires the student to secure agreement from a faculty member, with adequate funding to carry out the proposed research, to be the student's major professor. Students are not guaranteed a thesis advisor.

Before beginning thesis research and registering for thesis credits, the student must write a proposal, which must be approved by the student's major professor, committee, and the Departmental Chair. The approval process takes place through submission to https://nsuworks.nova.edu. Once the thesis proposal has been approved, M.S. thesis students sequentially register for and complete at least six thesis credits for Marine Science or fifteen thesis credits for Biological Science in each succeeding term until the thesis is complete and successfully defended. Sequential registration continues until the thesis is finished. If a student fails to register for any given term without written approval by the Chair, missed credits must be made up before graduation, usually during the next term of registration. It should be noted that while a minimum of six (Marine Science) thesis research credits are required, more than this may be necessary to complete M.S. research.

Committee Composition

Each M.S. student will have an advisory committee. To obtain the maximum benefit, it is to the student's advantage to form this committee early in their program.

The thesis advisory committee will consist of a major professor from the HCAS faculty and at least two additional members, one of whom must be from another college of Nova Southeastern University or from outside the university. In rare cases requiring approval by the Department Chair, the major professor may be an adjunct faculty member. The committee participates in topic selection and preparation of the proposal/outline and thesis. Close coordination between students and committees during this process is strongly advised. The major professor must have a terminal degree in a field relevant to thesis research. Other members of the committee must ordinarily have a terminal degree.

APPENDIX A: SAMPLE PROGRAM DEGREE PLANS

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: Biological Sciences - Bioinformatics Concentration

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
BCOR 5585	**3**	MSIT 501	**3**		
BMME 5900	**3**	MSBI 5910	**3**		
MATG 5005	**3**	MSBI 5920	**3**		
BMME 8053	**3**				
Total Fall Credits	**12**	**Total Winter Credits**	**9**	**Total Summer Credits**	**0**
				Year One Total	**21**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
Open Elective in Computer Science (MMIS 630, MMIS 643, MMIS 621, MMIS 671, BMME 6000, CISC 502, 670, 672, 502) or prior approval from the	**3**				
MSBI 5930	**3**				
BCOR 5000 *	**3**				
Total Fall Credits	**9**	**Total Winter Credits**	**0**	**Total Summer Credits**	**0**
				Year Two Total	**9**
				Two Year Total	**30**

* Bioinformatics concentration students must take the section of BCOR 5000 Graduate Seminar offered in the fall specifically for bioinformatics students.

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: Biological Sciences - Health Studies Concentration

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer***	**Credits**
				BCOR 5000	**3**
				BMHS 5105 or BMHS 5110	**3**
Total Fall Credits	**0**	**Total Winter Credits**	**0**	**Total Summer Credits**	**6**
				Year One Total	**6**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
BMHS 5200	**3**	BMHS 5450	**3**		
BMHS 5300	**3**	BCOR 5150	**3**		
BMHS 5400	**3**	BMHS 5250	**3**		
BMHS 5500	**3**	BCOR 5350	**3**		
		Comprehensive Exam	**0**		
Total Fall Credits	**12**	**Total Winter Credits**	**12**	**Total Summer Credits**	**0**
				Year Two Total	**24**
				Two Year Total	**30**

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: Biological Sciences - Thesis

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MATG 5005 or BCOR 5570	**3**	BCOR 5350 *	**3**	BCOR 5000 **	**3**
Graduate Biology Elective	**3**	BCOR 5580	**3**	BMME 7030	**3**
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
Graduate Biology Elective	**3**	BMME 7030	**3**	BMME 7030 ***	**3**
BMME 7030	**3**				
Total Fall Credits	**6**	**Total Winter Credits**	**3**	**Total Summer Credits**	**3**
				Year Two Total	**12**
				Two Year Total	**30**

* As an alternative students can take BCOR 5585 (offered fall term) or BCOR 5150 (offered winter term) or BMME 5900 (offered fall term).

** Thesis students must take the section of BCOR 5000 offered in the summer in person only but may petition the department chair for special permission to take the online BCOR 5000 section offered in fall.

*** Students must be registered in thesis course BMME 7030 each semester until they have successfully written, defended and submitted their thesis project, based on approval of the Thesis Committee Chair and all Committee Members. Students may petition the department chair to register in BMME 7035 Thesis Continuation if the 12 credits of BMME 7030 Thesis have been met (as well as all other course requirements) and the student has defended the Thesis project.

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: Biological Sciences - Capstone

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
BCOR 5570 or MATG 5005	3	BCOR 5350 *	3	BCOR 5000	3
Graduate Biology Elective	3	BCOR 5580	3		
Graduate Biology Elective	3				
Total Fall Credits	**9**	**Total Winter Credits**	**6**	**Total Summer Credits**	**3**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
Graduate Biology Elective	3	Graduate Biology Elective	3		
BMME 7040	3	BMME 7040 **	3		
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**0**
				Year Two Total	**12**
				Two Year Total	**30**

* As an alternative students can take BCOR 5585 (offered fall term) or BCOR 5150 (offered winter term) or BMME 5900 (offered fall term).

** Students must be registered in BMME 7040 Capstone each semester until they have successfully written, defended and submitted their capstone project, based on approval of the Capstone Committee Chair and all Committee Members. Students may petition the department chair to register in BMME 7045 Capstone Continuation if the 6 credits of BMME 7040 Capstone have been met and the student has defended their Capstone project.

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: HCAS - Master of Science

Major: Medicinal Chemistry - Thesis

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MCMS 5500	3	MCMS 6100	3		
MCMS 5600	3	PHRM 5012	3		
MCMS 6000	3	MCMS 7200	3		
Total Fall Credits	**9**	**Total Winter Credits**	**9**	**Total Summer Credits**	**0**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
PHRM 5004	3	MCMS 7300	3		
MCMS 7200	3	Graduate Elective	3		
PHRM 5701	1	PHRM 5701	1		
Graduate Elective	3				
Total Fall Credits	**10**	**Total Winter Credits**	**7**	**Total Summer Credits**	**0**
				Year Two Total	**17**
				Two Year Total	**35**

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: Medicinal Chemistry - Capstone

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MCMS 5500	3	MCMS 6100	3		
MCMS 5600	3	MCMS 7000	3		
MCMS 6000	3	PHRM 5012	3		
Total Fall Credits	**9**	**Total Winter Credits**	**9**	**Total Summer Credits**	**0**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MCMS 7000	3	MCMS 7100	3		
PHRM 5004	3	PHRM 5701	1		
PHRM 5701	1	Graduate Elective	3		
Graduate Elective	3				
Total Fall Credits	**10**	**Total Winter Credits**	**7**	**Total Summer Credits**	**0**
				Year Two Total	**17**
				Two Year Total	**35**

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Arts

Major: Composition, Rhetoric, and Digital Media

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
WRIT 5010	3	WRIT 5120	3	Elective	3
WRIT 5650	3	WRIT 5340	3	Elective	3
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
Elective	3	Elective	3		
WRIT 5950 or WRIT 6000 or elective	3	WRIT 5950 or WRIT 6000 or elective *	3		
		Exam students take the			
		degree completion exam.			
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**0**
				Year Two Total	**12**
				Two Year Total	**30**

* WRIT 5995 or 6000 as needed until Portfolio or Thesis is successfully defended, or the exam is passed.

SAMPLE ONE YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Arts

Major: Composition, Rhetoric, and Digital Media

YEAR ONE									
Fall Term I	**Credits**	**Fall Term II**	**Credits**	**Winter Term I**	**Credits**	**Winter Term II**	**Credits**	**Summer**	**Credits**
WRIT 5010	3	WRIT 5340	3	WRIT 5120	3	WRIT 5650	3	Elective or WRIT 5950	3
Elective	3	Elective	3	Elective	3	Elective	3	Exam students take exam; portfolio and thesis students defend final projects.	
WRIT 5950	1	WRIT 5950	1	WRIT 5950	1				
Total Fall Credits			**14**	**Total Winter Credits**			**13**	**Total Summer Credits**	**3**
								Year One Total	**30**

Halmos College of Arts and Sciences

SAMPLE FOUR YEAR CURRICULUM | 2024-2025 CATALOG

Program: Doctor of Philosophy

Major: Conflict Analysis and Resolution

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
CARD 5000	**3**	CARD 5100	**3**	CARD 6140	**3**
CARD 5040	**3**	CARD 7040	**3**	CARD 7050 or CARD 7250	**3**
CARD 7110	**3**	CARD 7120	**3**	CARD 66__ Elective	**3**
Total Fall Credits	**9**	**Total Winter Credits**	**9**	**Total Summer Credits**	**9**
				Year One Total	**27**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
CARD 6120	**3**	CARD 5140	**3**	CARD 7020 or CARD 7050 or CARD 7250	**3**
CARD 66__Elective	**3**	CARD 66__ Elective	**3**	CARD 66__ Elective	**3**
CARD 7090	**3**	CARD 7100	**3**	CARD 6180 or CARD 6625	**3**
Total Fall Credits	**9**	**Total Winter Credits**	**9**	**Total Summer Credits**	**9**
				Year Two Total	**27**
				Running Total	**54**
YEAR THREE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
CARD 66__ Elective	**3**	CARD 7001	**1**	CARD 7901	**3**
CARD 7500 or CARD 66__ Elective	**3**	CARD 7510	**3**		
Total Fall Credits	**6**	**Total Winter Credits**	**4**	**Total Summer Credits**	**3**
				Year Three Total	**13**
				Running Total	**67**
YEAR FOUR					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
CARD 7900	**3**	CARD 7900	**3**	CARD 7900	**3**
Total Fall Credits	**3**	**Total Winter Credits**	**3**	**Total Summer Credits**	**3**
				Year Four Total	**9**
				Four Year Total	**76**

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: Conflict Analysis and Resolution

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
CARM 5000	**3**	CARM 5100	**3**	CARM 6150	**3**
CARM 5040	**3**	CARM 5140	**3**	CARM 6140	**3**
CARM 6120	**3**	CARM 5200	**3**	CARM 66__ Elective	**3**
Total Fall Credits	**9**	**Total Winter Credits**	**9**	**Total Summer Credits**	**9**
				Year One Total	**27**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
CARM 6180	**3**				
CARM 6450	**3**				
CARM 66__ Elective	**3**				
Total Fall Credits	**9**	**Total Winter Credits**	**0**	**Total Summer Credits**	**0**
				Year Two Total	**9**
				Two Year Total	**36**

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: National Security Affairs and International Relations

YEAR ONE					
	Credits	**Winter**	**Credits**	**Summer**	**Credits**
NSAM 5005	**3**	NSAM 5001	**3**	NSAM 5003	**3**
NSAM 5010	**3**	NSAM 5015	**3**	NSAM 5004	**3**
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
NSAM 5014	**3**	NSAM Elective	**3**	NSAM Elective	**3**
NSAM Elective	**3**	NSAM Elective	**3**	NSAM Elective	**3**
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year Two Total	**18**
				Two Year Total	**36**

Halmos College of Arts and Sciences

SAMPLE CURRICULUM | 2024-2025 CATALOG

Program: Doctor of Philosophy

Major: Marine Biology/Physical Oceanography

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
Transfer credits (up to 30)	**30**	OCGY 0799	**6**	OCGY 0799	**6**
OCGY 0799	**6**				
Total Fall Credits	**36**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year One Total	**48**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
OCGY 8000	**6**	OCGY 8000	**6**	OCGY 8000	**6**
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year Two Total	**18**
				Running Total	**66**
YEAR THREE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
OCGY 8000	**6**	OCGY 8000	**3**		
Total Fall Credits	**6**	**Total Winter Credits**	**3**	**Total Summer Credits**	**0**
				Year Three Total	**9**
				Three Year Total	**75**

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Professional Science

Major: Environmental Science

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MSMS 5010 or MSMS 5020	**3**	MSMS 5030 or MSMS 5040	**3**	MSMS 5060	**3**
Graduate Elective	**3**	Graduate Elective	**3**	Graduate Elective	**3**
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MSMS 5020 or MSMS 5010	**3**	MSMS 5040 or MSMS 5030	**3**		
Graduate Elective	**3**	Graduate Elective	**3**		
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**0**
				Year Two Total	**12**
				Two Year Total	**30**

Halmos College of Arts and Sciences

SAMPLE TWO YEAR CURRICULUM | 2024-2025 CATALOG

Program: Master of Science

Major: Marine Sciences

YEAR ONE					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MSMS 5010 or MSMS 5020	**3**	MSMS 5030 or MSMS 5040	**3**	MSMS 5050 or MSMS 5060	**3**
Graduate Elective	**3**	Graduate Elective	**3**	Graduate Elective	**3**
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year One Total	**18**
YEAR TWO					
Fall	**Credits**	**Winter**	**Credits**	**Summer**	**Credits**
MSMS 5020 or MSMS 5010	**3**	MSMS 5040 or MSMS 5030	**3**	MSMS 5060 or MSMS 5050	**3**
Graduate Elective	**3**	Capstone or Thesis	**3**	Capstone or Thesis	**3**
Total Fall Credits	**6**	**Total Winter Credits**	**6**	**Total Summer Credits**	**6**
				Year Two Total	**18**
				Two Year Total	**36**

APPENDIX B: COURSE DESCRIPTIONS

APPENDIX B: COURSE DESCRIPTIONS

BCOR 5000 Graduate Seminar (3 credits)

Conveying and applying effective communication skills will be vital for success in academia, the health professions, scientific research and education. Research seminars represent a useful venue to effectively present the most recent research results to colleagues, faculty, students and the public. This course will provide students opportunities to present current research in the health and biological sciences fields of study for peers and faculty. Students will also gain exposure to scientific presentations by NSU faculty and other researchers. The latest techniques for presenting effective oral presentations, as well as evaluating and critiquing scientific seminars will be discussed.

BCOR 5150 Immunobiology (3 credits)

The goal of this course is to introduce two topics: general immunological concepts and mechanisms of disease. The course will focus on molecular and cellular bases of immune phenomena including development of the immune system, cellular and molecular mechanisms of immune recognition, host response to foreign agents including bacteria and viruses, nature of antigens and antibodies, antigen antibody interactions, immunity to pathogens, immune diseases, autoimmunity, and hypersensitivity.

BCOR 5350 Principles of Epidemiology (3 credits)

This course will introduce the principles and methods used in epidemiologic investigation of infectious and noninfectious diseases. The course will illustrate how epidemiological studies can contribute to an understanding of the etiological factors, modes of transmission, and pathogenesis of diseases, as well as demonstrate the relationship between epidemiology and the development of policy. Examples used in the course will help illustrate epidemic; the spread of infectious disease in school, home, and community; epidemiological aspects of a noninfectious disease; vaccination; the epidemiological approach to health services evaluation; rates of morbidity and mortality; and sensitivity and specificity of different methods.

BCOR 5570 Biostatistics (3 credits)

This graduate course will introduce the most commonly used statistical tests and procedures to analyze biological and ecological data. The main objective is to prepare the students to identify the most correct statistics to analyze biological data, perform the statistical analysis in R and correctly interpret the results. Lectures will consist of short theoretical presentations followed by a lab where students will do guided exercises in R. Students will be required to do readings prior to the class on the theoretical basis of the theme of the week and perform unguided exercises (homework) to cement knowledge.

BCOR 5580 Scientific Method and Experimental Design (3 credits)

This course provides a broad historical overview of biological sciences since Aristotle through Darwin with emphasis on both the experimental design of seminal studies as well as the evolving philosophical approaches to the acquisition of knowledge from methodological naturalism to critical rationalism, Karl Popper and the hypothetico-deductive model for scientific method.

BCOR 5585 Genomics (3 credits)

The primary goal of this course is to introduce and describe the latest advances in molecular biology, genomics, computational biotechnology, and their interrelationships to all biology and human society through classroom and computer exercises. We will review milestone discoveries, which led to the rise of genomics science, characteristics of the wide spectrum of different genomes (prokaryotic, eukaryotic and organellar), and innovative molecular techniques and tools (e.g. high throughput DNA sequencing, CRISPRs) used to study and manipulate genomes. We will study genomes including their architecture in different organisms and the gene products that underlie development and basic metabolism. Genomics will also be viewed in the context of "Big Data" sets, and its integration with computational methods. The impact of genomics on human health (personalized medicine, diagnostics and new treatments to cure genetic diseases), ecology, ethical issues and problems will be discussed in depth.

BMHS 5105 Physical Diagnostics Skills (3 credits)

This lab-based course will introduce students to the clinical aspect of health studies. Its primary objective is to assist students in learning and developing the knowledge and practical skills essential in performing a medical history and physical examination. In doing so they will develop vital communication, reasoning and problem-solving skills. The course is designed to be 'hands-on', offering students the opportunity to develop these practical skills with direct faculty observation and feedback. Frequency: Every Summer.

BMHS 5110 Introduction to the Dental Professions (3 credits)

This course is designed to provide an introduction to the profession of dental medicine. Lecture presentations will provide a knowledge base of what the profession is all about, and the course is intended for those master's students who have interest in pursuing a career in dentistry. Important concepts in dental anatomy, contemporary restorative dentistry, state of the art CAD/CAM technology and in various dental specialties, including endodontics, periodontics, orthodontics, pediatric dentistry, oral maxillofacial surgery, oral microbiology, and oral pathology will ensure that a comprehensive program is provided. Additionally, principles in practice management will be discussed to provide an overview of different practice models and the business of dentistry. Frequency: Every Summer.

BMHS 5200 Pathophysiology (3 credits)

This course will focus on the pathological basis of disease and its effect on the physiological systems and homeostasis of the human body. It consists of the comprehensive study of basic pathological processes including inflammation, dysplasia and neoplasia, along with specific acquired and congenital diseases of the various body systems. Additionally, students will gain an understanding of the diagnosis and prognosis of diseases.

BMHS 5250 Systems Neuroscience (3 credits)

The aim of this course is to provide students with a better understanding of the structural and functional components of nervous system at different levels of analysis in sufficient depth to form the basis for further clinical or research studies. The course is comprised of topics related to the molecular and cellular physiology of neurons, development of nervous system, sensory and motor systems, and complex brain functions (learning, memory, emotions, motivation, and language). It also familiarizes students with the range of PBL style cases in neuroscience, and topics related to neuropathology and neuroimaging are discussed in each chapter.

BMHS 5300 Pharmacodynamics (3 credits)

This course provides students a detailed understanding of basic pharmacology. It introduces the basic principles of drug absorption, distribution, metabolism, and elimination, as it pertains to pharmacology. Special emphasis is placed on determinants of therapeutic window, factors that affect the mechanism of action and side effects of the most common drugs. The course will provide a detail explanation about receptor theory including types of receptors, agonists, antagonists, receptor modulation and intracellular signaling pathways. The students will also be introduced to selected drugs commonly used in the United States.

BMHS 5400 Advanced Regional Anatomy and Lab (3 credits)

This course is designed to serve as a transition between systems-based undergraduate anatomy and regionally based medical professional anatomy. Anatomical organization will be presented in a regional format so that students can assimilate the bones, muscles, vasculature, innervations, and lymphatic pattern for each region of the body, similar to the pedagogical approach used in medical professional programs.

BMHS 5450 Integrated Systems in Health Studies (3 credits)

This course will take a multidisciplinary approach in incorporating different subjects around major body systems, including the cardiovascular, renal, endocrine and respiratory systems. This system-based integration will focus student learning on health issues within a body system and help with the comprehension of how different disciplines like anatomy, physiology, immunology, genetics and biochemistry, contribute to the overall health of individuals. Pre-Requisites: BCOR

5000, BMHS 5150, BMHS 5200, BMHS 5300, BMHS 5400, and BMHS 5500. Frequency: Every Winter.

BMHS 5500 Advanced Biochemistry (3 credits)

Structures and functions of the four major biological molecules (amino acids, lipids, carbohydrates, and nucleotides) and their metabolism will be discussed. Students will learn the structural-functional relationship of proteins, lipids, carbohydrate macromolecules. Fundamental biochemical processes related to metabolism including energetics, signal transduction, regulation and enzyme kinetics will be presented. Students will also learn the biochemical roles of vitamins, enzyme cofactors, hormones, drugs, antibiotics, and toxins. An emphasis will be placed on understanding the clinical applications of biochemistry. Experimental techniques used to study biochemistry will be illustrated.

BMME 5600 Training in standard molecular biology methods (3 credits)

Molecular biology has grown as a discipline since the 1970s, and now encompasses a wide variety of methods and theory. In order to perform growing research in genomics and bioinformatics, basic training in fundamental molecular methods is necessary. This course will train an upper level undergraduate or entry level graduate student in the basic techniques, such as DNA extractions from diverse organisms, gel electrophoresis, polymerase chain reaction, DNA sequencing reaction and analysis, restriction enzyme digests, and molecular cloning among others.

BMME 5900 Biological Data Science (3 credits)

Quantitative science requires the manipulation and analysis of large, complex physical and biological datasets (i.e., 'Big Data') to help answer scientific questions. To enable such analysis, it is necessary to gain skills in basic scientific programming and data mining, standardization, transformation, and visualization. Biological Data Science is designed to introduce basic programming and algorithm theory, datasets, terminology, and common scientific programming languages. This introduction will help develop basic programming skills such as scripting, iteration, dataset manipulation, and debugging. The practical portion of the course will focus on application of programming theory through analysis of a scientific dataset using a programming language. Data visualization and presentation in the form of publication-quality graphics, animations, and web-presentation of spatial data will be discussed. Students are required to have access to a windows-based PC. Frequency: Every Fall.

BMME 6000 Geographic Information Systems & Environmental Remote Sensing (3 credits)

This course assumes that you have an interest in Geographic Information Systems (GIS) and Remote Sensing. It is not intended to matter whether you consider yourself a chemist, physicist, biologist, geologist or geographer. The intention is to deliver practical experience in Geographic Information System (GIS) through analysis and

visualization of spatial data gathered from tools to study the Earth, its processes, and its inhabitants. The course is designed to be accessible to anyone with a reasonable grounding in the Earth and Biological Sciences with basic computer skills and is tailored to give a general induction to a wide scope of relevant topics and spatial data. The syllabus introduces basic Earth observation principles and image classification is dealt with by providing a grounding in the basic theory underlying image processing. Analyses of commonly collected spatio-temporal biological data will be emphasized. Processing, visualization, and presentation of spatial data, generated from field studies and theoretical models, will be stressed for the purposes of analysis and publication in print and on the internet. This practical and real-world experience founded in RS and GIS theory can be brought forward to each student's individual thesis topic.

BMME 6600 External Biology/Biotechnology Internship I (3 credits)

This course is designed to give the qualified graduate student hands-on, practical experience at a non-NSU biological laboratory. Methods to be learned and implemented will vary according to the sponsoring external laboratory but will generally involve modern biological, biochemical, environmental molecular and biotechnological methods. The student will work closely on a predetermined project, with a designated supervisor at the external lab. Development of hypotheses, experimental goals and interpretation of results will be expected. Prerequisite: Lab safety course, at least two undergraduate laboratory courses.

BMME 6700 Advanced Molecular Genetics Laboratory Methods (3 credits)

This course aims to provide practical laboratory experience with basic and advanced molecular genetics methods currently in use for molecular ecology and phylogenetics applications. Instruction on basic methods from DNA/RNA extraction of various marine organisms to gel electrophoresis will be the foundation. Secondly, students will run through other routine molecular protocols such as PCR (polymerase chain reaction), restriction digestion and polymorphism analyses, Quantitative real time (or qPCR), molecular cloning, plasmid isolation, and DNA sequence analyses in the context of marine organismal biology and molecular ecology.

BMME 6750 External Biology/Biotechnology Internship II (3 credits)

This course is designed to extend training provided in biotechnology internship I. The student will continue to show application of existing or novel biotechnology methods, and also provide evidence of performing an independent research project at the external laboratory. The course is designed to provide the graduate student hands-on, practical experience at a non-NSU biological laboratory. Methods to be learned and implemented will vary according to the sponsoring external laboratory but will generally involve modern biological, biochemical, environmental molecular and biotechnological methods. Development of hypotheses, experimental goals and interpretation of results will be expected.
Prerequisite: External biology/biotechnology internship I.

BMME 6770 Bacterial Evolutionary Genetics (3 credits)

Microbial populations evolve and adapt to their surroundings in rapid and facile ways. This course is designed to familiarize the evolution/ecology/microbiology student with an understanding of the evolutionary genetic mechanisms that govern diversity of the microbial world with a particular emphasis on bacterial species and strains. Numerous genetic mechanisms will be discussed that can rapidly diversify or homogenize bacterial populations including hypermutation, recombination, and the selective deletion of DNA. Many of these adaptive changes lead to the acquisition of dangerous traits among bacteria including enhanced virulence attributes, multi-drug resistance, and unusual tolerance to environmental insults. In addition, methods and assays capable of detecting and measuring these kinds of evolutionary changes among bacterial species and strains will be reviewed. Finally, a survey of analytical approaches currently deployed for ascertaining population and evolutionary diversity within a bacterial population will be undertaken.

BMME 7020 Directed Research: Biological Sciences (3 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of biological science. May be used for the completion of capstone or thesis proposal.

BMME 7030 Thesis: Biological Sciences (1-6 credits)

Research and thesis preparation. Requires prior consultation with major professor and submission of an approved biological sciences thesis proposal.

BMME 7035 Thesis Continuation (1 credit)

The course is designed as the final step of the Biological Sciences Thesis for the MS degree. The student must be near completion of the paper which has already shown demonstration of proficiency in research, organization, and writing. The Student Thesis proposal must have been approved and all previous thesis credits obtained. By approval of departmental chair only.

BMME 7040 Capstone: Biological Sciences (1-6 credits)

An extended literature review of a biological science subject approved by the student's advisory committee. The paper should demonstrate proficiency in library research, organization, and writing. Requires prior consultation with major professor and submission of an approved capstone proposal.

BMME 7045 Capstone Continuation (1 credit)

The course is designed as the final step of the Biological Sciences Capstone for the MS degree. The student must be near completion of the paper which has already shown demonstration of proficiency in library research, organization, and writing.

The student capstone proposal must have been approved and all previous capstone credits obtained. By approval of departmental chair only.

BMME 7050 Special Topics in Biological Science (3 credits)

Topics in advanced biological science that are not included in a regular course offering. Prerequisites may be required. Specific content and prerequisites are announced in the course schedule for the given term.

BMME 8053 Introduction to Bioinformatics (3 credits)

The primary goal of this course is to introduce the field of bioinformatics and to familiarize yourself with working in the UNIX/LINUX environment, standard DNA sequence analyses, and online database resources. There will be an emphasis on hands on practice and use of computer and online resources through the guidance of the instructor. Frequency: Every Fall.

CARD 5000 Foundations and Development of Conflict Resolution and Peace Studies (3 credits)

This course outlines the substantive themes, history, origins, contexts, and philosophical foundations of conflict resolutions, healing, peacemaking, and problem solving. Students will examine levels of interventions and processes in the field of conflict resolution.

CARD 5040 Communication Dynamics in Dispute Resolution: The Human Factor (3 credits)

This course presents communication theories relevant to resolution as well as theories about understanding, analyzing, and managing conflict. The course focuses on the human and emotional aspects of conflict and includes the influence of gender and culture. This course is pragmatic as well as theoretical and presents communication and conflict resolution models in a practice-based approach.

CARD 5100 Mediation Theory & Practice (3 credits)

This course examines theories, methods, and techniques of mediation. Students will have the opportunity to demonstrate their knowledge of mediation skills. Pre-requisites: CARD 5040 or CARM 5040

CARD 5140 Negotiation Theory and Practice (3 credits)

This course examines conflict intervention from the perspective of the disputant/negotiator. The integration of theory and practice will emphasize the tactics, strategies, and operations of effective and ineffective bargaining/ negotiating behavior. The course develops negotiator skills and knowledge, leading to collaborative-based actions and solutions. Prerequisite: CARM/CARD 5040

CARD 5200 Research Design and Program Development (3 credits)

This course focuses on the development of applied research skills appropriate for dispute resolution practitioners, including basic research tools, assessment, social science research, current research in the field, and an introduction to program evaluation through analysis of published work.
This course will provide students the knowledge and tools with which to study the social phenomena of peace and conflict. In addition, focuses on applied research for social change practitioners in general, and conflict resolution practitioners in particular. The course will cover the primary types of applied research: (1) assessment in order to inform policy or program design, and (2) evaluation to determine the effectiveness of a policy or program.

CARD 5500 Sustainability and Conflict: Environment, Economics and Society (3 credits)

This course examines the three elements of sustainable development, i.e., the environmental, economic, and social aspects. The course explores each element and delves into the contestations and confluences that characterize the three categories of sustainable development. One of the basics of the course is to locate the field of conflict analysis and resolution within the sustainable development movement. We will grapple with the inherent and ongoing conflicts in the sustainable development efforts as well as look at some of the current initiatives that are being undertaken to achieve the goals. Students will then be tasked with envisioning new ways that can practically be employed in order to address conflicts and contribute towards achieving sustainable development. Frequency: Fall.

CARD 5510 Systems Thinking in Sustainable Development (3 credits)

This course introduces students to thinking about relationships, patterns, and context. The course presents concepts crucial to understanding living systems, social systems, or ecosystems. The course will move students beyond observing single events or behavior to make them aware that the critical problems of our time — energy, economics, climate change, and inequality —are all interconnected and interdependent. Sustainable development requires students to solve complex, multidimensional problems at the global, national, and local levels, which often involve handling disputes. Principles of conflict transformation will be explored. (Pre-Req SDCT 5500- or concurrent with SDCT-5500) Frequency: Fall.

CARD 5520 Governance and Sustainable Development (3 credits)

This course surveys the link between governance and sustainable development. Sustainable development is the most important approach to reconciling economic development goals, environmental quality, and social equity. Governance can be understood as the rules, mechanisms, processes, and institutions that make and implement important decisions. The course's primary purpose is to examine how the state, private sector, and civil society interact on national and international levels to

address environmental and development issues through better governance models and frameworks of sustainability. (Pre-Req SDCT 5500) Frequency: Winter.

CARD 5530 Sustainable Development Goals: An Interdisciplinary Perspective (3 credits)

This course provides an interdisciplinary introduction to the UN Sustainable Development Goals (SDGs). Endorsed by all 193 of the UN's Member States, the SDGs represent the international framework (Agenda 2030) for cooperation on humanity's most pressing challenges. The course goes beyond describing the SDGs and their implementation in different contexts. It provides the students with the analytical tools and interdisciplinary skills to implement SDGs related programs in their current job and critically evaluate the job market in this field. Frequency: Winter.

CARD 6120 Culture and Conflict: Cross-Cultural Perspectives (3 credits)

This course examines the nature and meaning of conflict, conflict management techniques, and the assessment of conflict situations from a cross-cultural perspective. Explores various models for training third parties to function effectively in handling disputes where cultural differences are a significant factor. Also addresses various theoretical and practical implications of indigenous conflict management techniques and beliefs found in different cultural settings.

CARD 6140 Facilitation Theory and Practice (3 credits)

This course develops students' skills in working with groups. It incorporates theories and models of group dynamics, facilitation, and group development, as well as workshop development and delivery. This course uses a practice-based approach, including role plays and workshop presentations. Prerequisites: CARD 5040

CARD 6150 Professional Practice and Ethics (3 credits)

This course will examine current ethical challenges of practice in the field of conflict resolution and peacebuilding. Some questions to be explored will include the following: What are major ethical dilemmas facing peacebuilding and conflict resolution practitioners? Can there be and should there be universally accepted, over- arching standards of ethical conduct and practice that guide their work? Through a combination of lectures, role plays, cases studies and discussions, students will explore challenges facing peace and conflict resolution practitioners, working at the local, national, and international levels. Students will also collaborate on reasoned approaches and responses to ethical issues in conflict resolution practice. This course will explore the convergences and contradictions between personal development and professional development approaches, incorporating a learning laboratory model wherein students can learn about their personal values, biases, and working assumptions in order to become reflective and ethical practitioners.

CARD 6170 Violence Prevention and Intervention (3 credits)

This course examines various theories of human aggression and violence, exploring their underlying assumptions about human nature and the causes of violence. Also included is an introduction to a range of violence intervention and prevention approaches developed for use at the interpersonal, intergroup, and societal level. Offered fall.

CARD 6180 Internship in Training and Practice in Conflict Resolution (3 credits)

This internship course requires students to work with outstanding organizations, agencies, centers, for-profits, non-profits, communities, governmental agencies, etc., to gain direct and applicable experiences in training and practice sites within the field. This course engages students to work within real-world settings to help prepare them for careers and future employment in mediation, peacebuilding, negotiation, public policy, facilitation, social movements, dispute systems design, arbitration, and other conflict resolution activities. It enables students to apply what they have learned in their program to make meaningful impacts in their sites aimed at conflict prevention, conflict management, conflict resolution, conflict transformation, peacebuilding, and social change. Students will develop invaluable skills and abilities within their sites while simultaneously contributing to their sites by applying what they have learned from their graduate program. Students may work with established partnerships of our department, or they may seek approval for a new site if it meets the criteria and standards of the department in advance of the course. Frequency: Fall, Winter and Summer.

CARD 6600 Special Topics in Conflict Resolution (3 credits)

This course explores a variety of topics related to the field of conflict analysis and resolution, with the specific focus for each section determined by faculty on a case-by-case basis. The course provides for the exploration of topics of interest to faculty and students and/or timely topics, which are not covered by existing electives.

CARD 6601 International Conflict Resolution (3 credits)

This course reviews international conflict resolution in many settings and includes informal mediation by private interveners and scholar-practitioners; formal mediation by individual, regional, transnational, and international organizations; and mediation within small and large states.

CARD 6602 Resolving Environmental and Public Disputes (3 credits)

This course focuses on the theoretical basis, practical applications, process orientations, and actual intervention into complex multi-party, multi-issue public disputes. Focus is on social/environmental interactions and sources of political and economic conflict over human health environmental protection and natural resource scarcity.

CARD 6604 Gender and Conflict (3 credits)

This course examines gender roles in conflict and how conflict is experienced and perceived by men and women. Course material includes feminist theories, men's studies, religion, literature, history, anthropology, film, television, psychology, the justice system, and alternative dispute resolution.

CARD 6606 Advanced Mediation Skills (3 credits)

This course will oblige students to examine conventional wisdom and the students' own beliefs to develop a more sophisticated understanding of the potentials and limits of mediation in a wide variety of contexts. The course will cover selected mediation issues and skills in more depth than possible in an introductory survey of mediation. Students will analyze issues such as convening mediations, eliciting and satisfying interests, maintaining impartiality, dealing with power imbalances, handling apparent impasses, identifying and handling various ethical problems, and writing agreements. Students will also discuss practical aspects of operating a practice such as getting clients, billing, developing good relationships with other professionals, and creating standard forms. Pre-requisite: CARD 5100

CARD 6607 Ethnopolitical and Community-Based Conflicts (3 credits)

This course introduces the major methods used by states, international organizations, and conflict resolution practitioners to eliminate, manage, and resolve ethnic and community-based conflicts. Case studies are used to explain conflict escalation and de-escalation, and mechanisms of conflict intervention. Offered occasionally.

CARD 6608 Nonviolent Social Movements (3 credits)

This course focuses on 20th-century nonviolent social movements such as the women's rights and suffragist movement; Gandhi's prolonged struggle against British colonialism; Martin Luther King, Jr., and the American Civil Rights movement; the American peace movement against the war in Vietnam; and the nonviolent movements that resulted in the end of communist rule in Eastern Europe.

CARD 6610 Family Violence: Effects on the Family, Community, and Workplace (3 credits)

This course explores individual development across the life span, functional and dysfunctional family relationships, and the overall effects of trauma and violence on individuals and families. Issues of abuse, violence, and alcoholism are explored in relation to their effect on individual behavior and family dynamics. Methods for identifying such issues in the context of family mediation and other types of conflict intervention are explored.

CARD 6611 Race and Ethnic Relations in America (3 credits)

This course examines the social constructionist approach toward the study of racial and ethnic conflict and conflict analysis in the U.S. It is designed to assist students in increasing their ability to analyze racial issues from a historical and contemporary perspective, and to explore the basic theoretical paradigms that have been used to conceptualize the idea of race and ethnicity from the 19th century to the present. The course will also explore the effects of contemporary policies in addressing racial and ethnic inequities, and strategies to combat racism.

CARD 6612 Conflict Transformation, Reconciliation and Healing (3 credits)

This course examines the rise of collective violence and genocide in the 20th century, and the rich and troubling range of responses to massive societal repression such as: remembering and forgetting, judging and forgiving, reconciling and avenging, and grieving and education. This course also explores the possibilities and problems of reconciliation and healing in interpersonal conflicts, focusing on topics such as the needs and experiences of victims and offenders, the functions of punishment, and the concept of restorative justice.

CARD 6613 Arbitration Theory and Practice (3 credits)

The purpose of this course is to help understand the theory and processes of arbitration for a wide variety of cases. This course will cover the nature, enforceability and scope of arbitration clauses; other requirements to arbitrate; the powers of arbitrators; issues that typically arise in arbitration; the conduct of arbitration hearings; the remedies available in awards under federal and state law; and proceedings to confirm or to modify or vacate arbitration awards.

CARD 6615 Storytelling: Identity, Power, and Transformation (3 credits)

This course will examine the role of narrative and storytelling in the conflict resolution theory, research, and practice: (1) Theory regarding the relationship between language and power will be reviewed. How storytelling and narrative can be a part of destructive conflict or constructive conflict resolution will be explored. (2) The nature of narrative-based research and how such research can be empowering will be examined. (3) Case studies and possibilities for using storytelling-based projects as a means of peace building will be discussed.

CARD 6616 Trauma and Violence Global Perspective (3 credits)

This course will look at issues of war, regional violence, torture, forced relocation, ethnic cleaning, rape and other issues related to regional conflict, and then focus on conflict intervention models. Relief and assistance programs from humanitarian relief, the Red Cross, UN programs, Quaker NGO's, Christian relief efforts, and others will be examined with a focus on trauma intervention as a conflict resolution career option. Discussion will center on how conflict specialists can connect, work with, and influence humanitarian aid efforts, capacity building, democratization efforts, and conflict transformation projects.

CARD 6618 The Reflective Practitioner: Consulting, Conflict & Change in Org. Settings (3 credits)

A hands on, clinically based course in which students will form consulting teams (like in consulting firms) and actually do consulting in the community.

CARD 6619 Strategic Community Planning and Partnership (3 credits)

An overview of the community from a strategic perspective, identifying: social, economic, demographic and cultural trends and patterns within the community; areas of concern for law enforcement and government; ways to initiate and develop community-wide strategic planning for peaceful community relations and growth; building community partnerships between law enforcement, the criminal justice system and community agencies and groups; community justice; and the use of data, data collection and analysis in developing and implementing collaborative long and short term plans for community development, problem-solving and funding initiatives.

CARD 6620 Academic Writing (3 credits)

This writing course is a user-friendly seminar on how to write clear, unpretentious academic prose. Technical issues are covered that include sentence structure, punctuation, tenses, idea development and presented in a non-technical manner. The focus includes strategies for creating and editing manuscripts and for researching, organizing, and writing literature reviews.

CARD 6621 Introduction to Human Rights Theory & Practice (3 credits)

This course provides students with an introductory survey of political, philosophical, historical, economic, and legal considerations related to fundamental human rights concepts. Students will examine human rights issues in both domestic and international arenas. In particular, the course addresses the issues of the ideological and cultural origins of human rights theory; the sources of rights and rights violations; the impact of the nation-state system, governments and other institutions (such as corporations, churches and universities), and domestic and foreign policies particularly of the U.S.) on human rights law and enforcement. Finally, students examine the wide variety of political, civil, economic, social and cultural rights warranting protection. Offered occasionally.

CARD 6622 Legal Concepts (3 credits)

This course will provide an overview of the U.S. legal system as it relates to alternative methods of resolving conflicts. Students will learn legal terminology, the judicial system, judicial procedures, the fundamentals of legal research and legal writing, and where alternative methods such as mediation and arbitration relate to legal processes. Students will also explore legal and procedural concepts such as: collaborative legal practices, state and federal authority, restorative justice, victim-

offender programs, and the relationship between U.S. and international legal procedures. The class will be interactive with research, writing, class presentations, and guest presentations.

CARD 6624 Advanced Practicum (3 credits)

This practicum experience is a faculty-driven experience in which a faculty member will design a project in conjunction with another organization or university and students selected for the practicum will work on that project with the faculty member. The project may also entail a one to two week mandatory field experience in which students and the faculty member will work on the project on location. Students will be responsible for their expenses. Students will apply for this practicum and must be selected.

CARD 6625 Global Practicum (3 credits)

The Global Field Studies Practicum Course in Conflict Resolution incorporates a field-immersion component as part of this practicum course. It is developed around principles of multidisciplinary conflict analysis, management, and resolution which promote scholarship of engagement in communities through research, education, and practice. This course provides a solid knowledge base by the application of conflict resolution concepts through experiential learning that lead to professional development. The field experience enhances students' cross-cultural skills, appreciation and understanding of diversity and global issues. During the course students are exposed to a diverse community of researchers, practitioners, policy makers, who share with students their experience and career journeys. The course provides for the enhancement of students' career development plans and requires the completion of all required practicum forms and paperwork. For their final project students are expected to work with a partner organization developing research, training, or consultancy projects where students apply theoretical concepts within a practical framework.

CARD 6628 Schools, School Systems and Conflict Resolution (3 credits)

The course addresses systemic drivers of and techniques for resolving conflicts within the school and its community. Students will learn models for developing a peace and human rights culture throughout a school or school system, providing training for parents, teachers, students, and school board. Students will study and develop such curriculum and programs in class. The course also examines methods to manage conflict, including using conflict resolution practices such as mediation, negotiation and dialog in crisis situations such as hate crimes on campus.

CARD 6629 Online Dispute Resolution (3 credits)

The purpose of this course is to provide the student with an opportunity to gain advanced knowledge, skills and abilities regarding the definition, function, ethics and future of ODR. Our starting point for a definition of ODR is Internet or cellphone-based device platform hardware, software and activity through which a diverse array

of conflict resolution interventions intentionally takes place. The overarching question around which the course is organized is how conflict resolution scholars and practitioners can optimize the use of ODR and Information Communications Technology (ICT) in light of rapid technological and social change? The course centers around the whole-class development of ODR technical and ethical systems. By the end of the course, the student should be better prepared for further professional involvement in ODR and have an excellent sense of how to move forward, with integrity, academically and professionally, in this fast-growing and increasingly influential area of theory, research, and practice.

CARD 6630 Foundations of Genocide Studies (3 credits)

This course is a survey of the causes, forms, and nature of genocide. The course addresses the complexities in differentiating human rights violations and crimes against humanity, from genocide and government sponsored mass murder. Theoretical and applied cases studies will facilitate student engagement. The course will serve as an introduction to the theories and applied practices utilized in analyzing acts of genocide. Issues addressed throughout the course will include genocidal intent, eugenics and genocide, demographic purging, as well as mass and public extermination.

CARD 6631 Entrepreneurship & Starting a Dispute Resolution Business (3 credits)

This course focuses on essential topics of business and entrepreneurship and will provide a solid and practical overview of starting and running a Dispute Resolution Business practice in contemporary times. Students will integrate theories and models from past courses, including Facilitation, Mediation, Negotiation, Conflict Coaching, Dispute Systems Design, Ombudsman, Consulting, Peacebuilding, and Training. Students will have direct experience in creating business plans, developing business profiles, designing their business structure, developing marketing campaigns, identifying their customer segments, differentiating their brand from others, and designing a progressive and professional website. Students will learn how to build, launch, and market a successful dispute resolution business while learning the characteristics of successful entrepreneurs and practitioners.

CARD 6632 Civil Wars and Their Resolution (3 credits)

This course examines the various complexities of violent civil conflict. Using a general survey of the field, supplemented with numerous civil war case studies, students explore the various factors contributing to the outbreak of civil wars, the processes and consequences of such conflict, as well as the variety of methods available for resolution. Offered occasionally.

CARD 6633 International War and Resolution (3 credits)

This course focuses on various aspects of international war and peace. Topics of discussion include defining war, historical patterns of warfare, motivations to engage in such conflict, as well as efforts to deter or resolve international war. Offered occasionally.

CARD 6634 Metropolitan Conflict (3 credits)

This course will explore historical and theoretical explanations for the different types of conflict prevalent in various metropolitan areas. A series of case studies, focusing on both cities within the United States and abroad, students will explore such topics as the role of ethnicity in conflict, structural inequalities of the system, urban/suburban relations, urbanization, and metropolitan growth and development.

CARD 6635 Advanced Facilitation: Facilitating Complex Group Problem Solving (3 credits)

This course focuses on facilitation in complex problem situations. The focus will be on intercultural settings. Various approaches to complex facilitation are introduced, with special attention to dealing with difficult parties and principles of Interactive Management (IM). This course will provide students with the skills necessary to perform a facilitation workshop with a computer-assisted program developed to resolve complex problems. Students will gain experience as participants in problem-solving sessions, which they will study and analyze. Class sessions will consist of role-plays, discussion and analysis, and presentation of information. Prerequisites: CARD 6140. Offered occasionally.

CARD 6636 Education in Emergency and Conflict Contexts (3 credits)

This course explores the issues arising for education systems in emergency and conflict contexts. Students will interact with professionals working in such contexts. They will also explore the issues facing education systems in such contexts, up to and including education post-civil war, refugee education and education during active conflict. What role do education systems play in such contexts? How can the UN's Sustainable Development Goal 4 (quality education for all) be met even in such circumstances? What tools and strategies can leaders, educators and students use to ensure education, curriculum and pedagogy is "conflict sensitive"? Frequency: Fall Odd Years.

CARD 6638 Conflict & Crisis Management Theory & Practice (3 credits)

This course is an overview of the theories of conflict and crisis management, and the intervention models and protocols used. Conflict and crisis management will be explored among and between individuals and groups, organizations, communities, and governments around the globe. Topics will include the management of violent conflicts, such as kidnapping, hostage-barricade and terrorist acts, homeland

security, and the response to natural disasters. There will be interactive exercises as well as a case study approach used. Offered Winter.

CARD 6639 Organizational Conflict Intervention (3 credits)

This course will explore the diagnostic techniques and tools necessary to assess organizational conflict, and tools necessary for successful intervention. Offered occasionally.

CARD 6641 Conflict and Crisis Negotiation (3 credits)

This course will provide an overview of law enforcement crisis negotiation and its application to crisis situations, such as domestic violence encounters on an individual level and hostage/barricade encounters on an organizational level. Lecture, expert demonstration, and interactive negotiation with role play will provide an experiential learning environment for understanding and applying active listening skills, empathy, rapport, influence, and behavioral change concepts to conflict and crisis situations. Frequency: Fall Odd Year.

CARD 6643 Social Aspects of Terrorism (3 credits)

This course will examine a wide range of different cultures and societies with a special emphasis placed upon political violence. Regions explored are: Basque country, Chechnya, Colombia, Northern Ireland, Palestine, Sri Lanka, and Zimbabwe. Of particular importance are the dimensions of terrorism, trauma, and violence through an understanding of colonialism, discourse, history, material culture, media, rebellion, revolution, and separatism. Additionally, the course will focus upon the causes of 9/11 and the recent fomentation of international terrorism. By exploring the subject of terrorism form an anthropological perspective will demonstrate the complexities and various interpretations concerning the political uses of violence through the appreciation of interdisciplinary analysis.

CARD 6644 Consulting with Leaders in Organizational Conflict: A Four Frames Approach (3 credits)

Studies clearly show that successful leaders of the twenty-first century organizations need to make sense of complex conflict situations before taking action. This course will combine theory and practice to equip students to assist organizational leaders in developing both diagnostic and behavioral sophistication by using multiple frames before taking action. Participants will engage in both classroom learning, on-line assistance, and leadership coaching with a client and organization of their own choosing. Offered occasionally.

CARD 6645 Indigenous Systems of Conflict Resolution (3 credits)

This course is designed to make contributions to the field by exploring the processes of conflict resolution and peacemaking as practiced by the indigenous communities around the world. Class members will engage in an in-depth exploration of

techniques of peacemaking, as practiced in various parts of the world. Offered occasionally.

CARD 6648 Researching Conflict (3 credits)

In this course, students and instructors will together conceptualize, design and carry out a mixed methods research study on a topic connected to violence. The students and instructors will decide on a research problem to be studied. The goal of the elective is to help students deepen their understanding of quantitative and qualitative research and hone their research skills. The course will be a collaborative effort, building on the experience, knowledge, expertise, and interests of all of the participants. Offered occasionally.

CARD 6649 Federalism and Intergovernmental Conflict (3 credits)

This course describes and analyzes the guiding principles and the operational processes of "American Federalism", as well as its intended and unintended consequences. It seeks to provide students with a working understanding of the complex set of interactions occurring between all government units and levels (national/federal, States, Counties, municipalities, school districts and special districts, townships, etc.) in the USA; the various types of conflicts which necessarily result from these interactions; and the solutions that have been implemented in the past, or are currently suggested, in order to address and resolve these conflicts.

CARD 6650 International Negotiation: Principles, Processes, and Issues (3 credits)

This course describes and analyzes the major principles, processes and issues of international negotiation in the twentieth and twenty-first centuries. It seeks to provide students with the analytical tools and skills required to explain and predict the outcome of specific (bilateral or multilateral) negotiations through the study of various explanatory factors, including: stability and change in the structure of the existing “international system”; the individual characteristics of the nations-states parties (power/capabilities, interests, culture/values, negotiating styles, etc.); the strategic and tactical moves of those considered as “key player”; as well as the role of smaller states and non-state actors. Offered occasionally.

CARD 6651 Theories of Ethnicity & Nationalism (3 credits)

This course is foundational for theoretical understandings of ethnicity and nationalism. Students will analyze general theories from key debates and critically examine various points of view in relation to defining boundaries, conflict, context, difference, identity, migration, minority/majority, race, and tribalism in regard to ethnicity, as well as community, fantasy, ideology, neo-Marxism, modernism, perennialism, political, primordialism, semiotic, sociocultural, socioeconomic, imagination, invention, and tradition in association with nationalism and nationalists, and the entwinement and interrelation between all of these prevalent notions and themes. Upon completion of the course students will better grasp ethnic belonging,

ethno-nationalist conflict, and intra/inter-group disputes from the standpoint of applied theory, cultural relativity, and humanism. Offered occasionally.

CARD 6652 History, Memory and Conflict (3 credits)

Why do certain cycles of violence and revenge seem to be passed down from generation to generation? How do we in the present remember and interpret the traumas and conflicts our society endured in the past, and how might this lay the groundwork for the conflicts of today? By exploring the significance of history, memory, and cognition, this course provides the most recent theoretical debates on these issues and their significance for understanding why populations persist in a state of violence. Questions to be considered include: how does the past become relevant to the present, and how do we as peace-builders respond to interrupt cycles of historical violence? Others are: how is the past re-invented, mythologized about, and re-imagined? How do the powerful manipulate collective memory to perpetuate cycles of violence? Why does memory have such an important role in the persistence of intractable hostilities and how does the learning of violence become transmitted from one generation to the next? Using cutting-edge theories and case studies from today's headlines and incorporating tools of practice such as art and storytelling, this course will empower students to be a part of peace-building in the context of entrenched historical conflict.

CARD 6653 Conflict in Conservation and Development (3 credits)

This course examines conflict in conservation and development. It covers theoretical frameworks and introduces participatory tools that will enable students to more effectively analyze and address situations of conflict in conservation and development initiatives. The course familiarizes students with concepts and methods from natural resource management, sustainable livelihood systems and collaborative learning approaches.

CARD 6654 Islam, Conflict, and Peacemaking (3 credits)

This course will provide an historical overview of Islam, including an introduction to belief systems, the different branches of the faith and schools of Islamic law with a special emphasis on Muslim doctrines related to conflict and peace. It will include the contemporary era and investigate Muslim engagements with modernity and discuss the varied responses and perspectives. There will some discussions of international relations, but the course will also emphasize micro level issues. Students will have the opportunity to develop research projects designed to extend their understanding of Islam and its potential as a resource for peace building.

CARD 6655 The interdisciplinary Writer (3 credits)

This course is designed to assist graduate students in creating essays, thought papers, and other pieces of writing that reach an intended audience with clarity, skillful craft, and purpose. It includes reading and writing assignments for an academic setting focused on interdisciplinary perspectives. Students will be

expected to participate in class discussions and improvisational writing exercises. Because this is a writing course, rather than just a course about writing, there will be a workshop component to the class. This means that all participants will bring in copies of their work to share to develop writing strengths and skills, improve editing abilities, and better understand how an author's writing and those of others, a piece's purpose, it's organizational structure, level of craft execution, authorial voice, and engagement of the audience.

CARD 6656 Gender, Conflict and International Development (3 credits)

This course provides the student with essential understanding of factors that shape the social, political and economic roles of women and men in developing countries. The course covers the concepts of gender in conflict resolution and peace building by examining women and men's human rights and security, and the consideration of gender within developmental policies. The course provides an overview of concepts and gender analysis frameworks from a historical perspective. Students examine specific projects aimed at integrating women into community development.

CARD 6657 Conflict Coaching Theory and Practice (3 credits)

This course examines the growing use of conflict coaching as a conflict intervention process and introduces different models and related theoretical foundations. The integration of theory and practice will emphasize the various stages including identity framework, narrative, needs assessment, goal setting, and feedback, utilizing a relational and systems orientation. The course develops coaching skills, strategies, and knowledge, and uses a practice-based approach, including role-plays and case studies.

CARD 6658 Transformational Narratives (3 credits)

Across cultures, people effectively communicate about their conflicts and issues through narratives. In any helping profession, it is effective to create useful change with a clear understanding of the strategies of transformational narratives. By understanding what creates change in stories, we can help people rewrite their own accounts in ways that redefine their possibilities. This course offers analyses of narratives from traditions of conflict resolution and other interdisciplinary perspectives, promoting the ability to reframe, refocus, and creatively intervene in stories of a personal and social nature to open useful possibilities for people who carry stories of unresolved struggle.

CARD 6659 Conflict and Peace Building in Africa (3 credits)

This course examines conflict and peace building dynamics in the African continent. Its content includes a survey of contemporary macro-level conflicts in Africa and an examination of their historical and more immediate causes. Class participants will explore the causes and effects of such conflicts and investigate prospects for constructive transformation. Past and ongoing resolution and peace building efforts

will be discussed, and class members will propose a peace building strategy for a case of their choice.

CARD 6660 Conflict Management in Groups: Overt and Covert Dynamics (3 credits)

The purpose of this course is to provide participants with the knowledge, skills and attitudes to be effective in groups with an emphasis on analyzing and managing overt and covert conflict. The course also examines issues of communication, leadership, power and authority in relation to group and interpersonal effectiveness. This course enables participants to cope with complex issues as they emerge in the natural life of small groups, large groups and organizations. Learning about group life is gained through direct experience in a temporary learning organization created in the course. The course is designed as a living laboratory where members can experience and explore group life as it occurs.

CARD 6661 Middle Eastern Conflict (3 credits)

This graduate seminar explores the many different types of conflict found in the Middle East. It seeks to provide students with the analytical tools and skills required to explain the causes, understand the actors, and analyze and/or predict the outcomes of specific Middle Eastern conflicts. To meet these objectives, we will evaluate broad types of Middle Eastern conflict such as religious, ethnic, and cultural, militarized conflicts, civil wars, and occupations. We will also evaluate Middle Eastern conflict negotiation, the Middle East peace process, why negotiation and peace has failed, and what needs to be done so that Middle East peace could be achieved. Finally, we will look at the future of Middle Eastern conflicts.

CARD 6662 Political Violence (3 credits)

Political Violence is a graduate seminar that explores the many different types of political violence; specifically looking at revolutions, terrorism, and transitional-institutional political violence. This seminar examines a wide range of topics in order to provide the student with a deeper understanding of political violence. We will engage in a thoughtful and in-depth examination of the definitions, causes, and consequences of political violence, as well as consider the different means to countering political violence.

CARD 6663 Introduction to Peace Studies (3 credits)

This graduate seminar explores theories of peace and war, as well as the promotion of peace. This seminar provides students with an in-depth understanding various depictions of peace, emphasizing the concepts of positive peace, social justice, and international development. Peace will be examined systemically, highlighting connections between the experience of peace at the personal, community, national, and international levels. Students will therefore also investigate the relationships that human nature and culture have with peace, war, and violence. In addition, the course will investigate how international bodies promote peace and mitigate the

effects of war. Students will also examine the causes of war and just war theory. The field of peace studies will be outlined as well, including a brief history of the field.

CARD 6664 Restorative and Transitional Justice (3 credits)

This graduate seminar explores the theory and practice of both restorative justice and transitional justice. This seminar provides students with an in-depth understanding of the theory upon which restorative justice and transitional justice practice rest. Various forms of practice, stemming from diverse practice settings, are also examined, including victim-offender mediation, victim-offender dialogue in cases of severe violence, family group conferencing, peacemaking circles, and restorative justice practice in schools. The seminar offers students opportunities to role-play and practice restorative justice skills. Forms of transitional justice are also surveyed, particularly truth and reconciliation commissions and their work around the globe.

CARD 6667 Advanced Transitional Justice (3 credits)

War and large-scale violence deeply scar individuals and societies. Peace does not come with the silencing of the guns and the danger of conflict resurgence is extremely high in the immediate aftermath of hostilities. Long term resolution of conflicts requires that the damage of past conflicts be addressed so as to enable societies to progress into peaceable, just futures. Transitional Justice has grown into a new subfield of study, and it addresses some deeply challenging questions arising out of violence. How can societies torn apart by war, genocide, atrocities, and dictatorships emerge into a new and brighter future? Can people and citizens deeply scarred by violence learn to forgive, forget and/or co-exist? Or does true healing require punishment, vengeance, and retribution for crimes past? In this class we balance moral, legal, and psychotherapeutic theories against the realities of historical and contemporary examples. We will examine the solutions proposed so far including the International Criminal Court, Truth Commissions, Memorializations, Reparations etc. We will look at some specific exemplars such as South Africa, Bosnia-Hercegovina, Sri Lanka, Canada, Argentina and others.

CARD 6668 Organizing Nonviolent Social Change (3 credits)

This is a practice course that aims to provide students with the skills necessary to make nonviolent social change happen. It grows out of experiences in legislative advocacy in Washington DC and community mobilization on conflict resolution and federal appropriations allocations for HIV Aids programming. Students will explore some of the practicalities of nonviolent social action and how to participate more effectively in initiatives. Cases of nonviolent struggle, principles of strategy, and the techniques and methods of nonviolent action will be covered. Some skills covered will be: How to frame messages for mobilization, how to raise funding (including taking advantage of internet use), how to work with the media etc. Students will be assigned skill-based exercises like creating posters (hard copy or electronic), writing talking points for legislative testimony etc. We will use strategies from Gene Sharp and Saul Alinsky (tutor to Hillary Clinton and President Obama).

CARD 6669 Theory and Practice of Peace Education (3 credits)

This course will introduce students to the central concepts, theories, current debates and cutting-edge practices as regards peace education. Essential questions include what peace education is, experiential learning, how do faculty design curriculum around peace education, how faculty can address nonviolence in the classroom, best practices in assisting students to understand the role of power and inequalities in conflict, and how to facilitate student (and teacher) understanding of entrenched historical conflicts.

CARD 7001 Doctoral Seminar (1 credit)

This course is designed to provide support, information, resources, coaching and feedback to doctoral students in preparation for the qualifying examination. Primarily, the course focuses on preparation for the qualifying examination and assisting students in organizing their resources and time. Pre-requisites: (CARD 6130 and CARD 6160), or (CARD 7500 and CARD 7510), or (CARD 6130 and CARD 7500)

CARD 7020 Systems Design: History and Contemporary Practice (3 credits)

An examination of concepts of dispute resolution systems design. Includes the influence of organizational culture and prevailing social and cultural norms on the design and implementation of dispute resolution systems. Explores dispute resolution systems for neighborhoods, religious organizations, ethnic groups, business associations, and other settings that have relatively clear boundaries and shared norms.

CARD 7040 Theories of Conflict and Conflict Resolution I (3 credits)

This course examines macro and micro theories from social science disciplines about the nature of conflict and various approaches to conflict resolution.

CARD 7050 Theories of Conflict and Conflict Resolution II (3 credits)

Continuation of CARD 7040. Pre-requisites CARD 7040 or CARM 5020

CARD 7090 Quantitative Methods I: Methods and Tools (3 credits)

Covers a range of quantitative research methods and designs including questionnaires, interviews and surveys, sampling, attitude and rating scales, tests of statistical significance, experiments, and the basics of descriptive statistics and univariate analysis. Offered fall.

CARD 7100 Quantitative Research II: Analysis and Statistics (3 credits)

This course explores various methods of analyzing and presenting quantitative research data. Includes common concepts and techniques for analyzing results of

surveys and experimental research projects: computer statistical program and an in-house database, bivariate and multivariate analysis, index and scale development, and more advanced techniques such as regression analysis.

CARD 7110 Qualitative Research Methods I (3 credits)

This course provides an introduction to the qualitative research traditions and the philosophical and ethical considerations in conducting this type of research. The course explores a range of qualitative data collection with a focus on ethnography and biography. These are two of the five major traditions to be explored in this two-course series. Techniques used to research conflict and conflict resolution, including in-depth interviews and participant-observation, data collection and analysis, as well as review of relevant research literature in the field. Offered fall.

CARD 7120 Qualitative Research Methods II (3 credits)

This course continues the exploration of qualitative research with a special focus on three of the five qualitative traditions, phenomenology, the case study, and grounded theory. Such traditions will also explore how to research conflict and conflict resolution. In addition, elements of the qualitative research proposal will be discussed and practiced such as formulating an abstract, research problems, research questions/ objectives, and methodological analysis. Offered winter.

CARD 7250 Public Policy (3 credits)

Analysis of current policy issues in the field of conflict resolution with an emphasis on the design, implementation, evaluation and analysis of legislation, including state and local policy initiatives in Florida, the United States, and abroad.

CARD 7500 Teaching and Training in Conflict Resolution (3 credits)

An introduction to teaching and training. Reviews instructional models and teaching literature with emphasis on teaching the adult learner. Pre-requisites: CARD 5000 and CARD 5040 and CARD 7090 and CARD 7110 and CARD 7040 and 2 of the following: CARD 5100, CARD 5140, CARD 6140, CARD 7020.

CARD 7510 Teaching and Training in Conflict Resolution Practicum (3 credits)

Provides an opportunity for supervised teaching and training experience in graduate, undergraduate, continuing education, video and curriculum development, seminar, online course delivery, and/or workshop instruction in conflict resolution or related field. Offered winter. Pre-requisite: CARD 7500.

CARD 7900 Dissertation (1-6 credits)

Focuses on the development, writing, and defense of the dissertation. When approved, students register for at least three credits per term for a minimum of 12 credits. Prerequisites: Successful completion of all coursework, CARD 7901 and

passing of the qualifying exam. The approval of the Program Director and Dissertation Committee is also required.

CARD 7901 Dissertation Preparation Course (3 credits)

This course is designed to provide structure and guidance for students entering the dissertation stage of the doctoral program. Emphasis in the course will be on the steps necessary to prepare a draft dissertation proposal including research design, research tools, literature review, theoretical perspectives, and the design of research questions. Students in the class, in consultation with their dissertation chairs, will develop progress timelines and will be apprised of all the related policies and procedures for dissertation study. The course will utilize a facilitative approach and will employ peer review. Co-requisite: Qualifying Exam.

CARM 5000 Foundations and Development of the Field of Conflict Resolution (3 credits)

This course outlines the substantive themes, history, origins, contexts, and philosophical foundations of conflict resolution, healing, peacemaking, and problem solving. Students will examine levels of interventions and processes in the field of conflict resolution.

CARM 5040 Communication Dynamics in Dispute Resolution: The Human Factor (3 credits)

This course presents communication theories relevant to conflict resolution as well as theories about understanding, analyzing, and managing conflict. The course focuses on the human and emotional aspects of conflict and includes the influence of gender and culture. This course is pragmatic as well as theoretical and presents communication and conflict resolution models in a practice-based approach. Frequency: Every Term.

CARM 5100 Mediation Theory and Practice (3 credits)

This course examines theories, methods, and techniques of mediation. Students will have the opportunity to demonstrate their knowledge of mediation skills. Prerequisites: CARM/CARD 5040.

CARM 5140 Negotiation Theory and Practice (3 credits)

This course examines conflict intervention from the perspective of the disputant/negotiator. The integration of theory and practice will emphasize the tactics, strategies, and operations of effective and ineffective bargaining/ negotiating behavior. The course develops negotiator skills and knowledge, leading to collaborative-based actions and solutions. Prerequisite: CARM 5040.

CARM 5200 Research Methods (3 credits)

This course focuses on the development of applied research skills appropriate for dispute resolution practitioners, including basic research tools, assessment, social science research, current research in the field, and an introduction to program evaluation through analysis of published work.

CARM 5500 Sustainability and Conflict: Environment, Economics and Society (3 credits)

This course examines the three elements of sustainable development, i.e., the environmental, economic, and social aspects. The course explores each element and delves into the contestations and confluences that characterize the three categories of sustainable development. One of the basics of the course is to locate the field of conflict analysis and resolution within the sustainable development movement. We will grapple with the inherent and ongoing conflicts in the sustainable development efforts as well as look at some of the current initiatives that are being undertaken to achieve the goals. Students will then be tasked with envisioning new ways that can practically be employed in order to address conflicts and contribute towards achieving sustainable development. Frequency: Fall.

CARM 5510 Systems Thinking in Sustainable Development (3 credits)

This course introduces students to thinking about relationships, patterns, and context. The course presents concepts crucial to understanding living systems, social systems, or ecosystems. The course will move students beyond observing single events or behavior to make them aware that the critical problems of our time — energy, economics, climate change, and inequality —are all interconnected and interdependent. Sustainable development requires students to solve complex, multidimensional problems at the global, national, and local levels, which often involve handling disputes. Principles of conflict transformation will be explored. (Pre-Req SDCT 5500- or concurrent with SDCT-5500) Frequency: Fall.

CARM 5520 Governance and Sustainable Development (3 credits)

This course surveys the link between governance and sustainable development. Sustainable development is the most important approach to reconciling economic development goals, environmental quality, and social equity. Governance can be understood as the rules, mechanisms, processes, and institutions that make and implement important decisions. The course's primary purpose is to examine how the state, private sector, and civil society interact on national and international levels to address environmental and development issues through better governance models and frameworks of sustainability. (Pre-Req SDCT 5500) Frequency: Winter.

CARM 5530 Sustainable Development Goals: An Interdisciplinary Perspective (3 credits)

This course provides an interdisciplinary introduction to the UN Sustainable Development Goals (SDGs). Endorsed by all 193 of the UN's Member States, the SDGs represent the international framework (Agenda 2030) for cooperation on humanity's most pressing challenges. The course goes beyond describing the SDGs and their implementation in different contexts. It provides the students with the analytical tools and interdisciplinary skills to implement SDGs related programs in their current job and critically evaluate the job market in this field. Frequency: Winter.

CARM 6000 Organizational Conflict: Theory and Practice (3 credits)

This course examines consultation as used by dispute resolution professionals through the exploration of various consultation models: process, third party, expert, and systemic approaches to program and organizational evaluation. Students are oriented to the ways in which consultants establish, market, and develop their professional practices. Prerequisites: CARM 5040 or CARD 5040.

CARM 6120 Culture and Conflict: Cross-cultural Perspectives (3 credits)

This course examines the nature and meaning of conflict, conflict management techniques, and the assessment of conflict situations from a cross-cultural perspective. Explores various models for training third parties to function effectively in handling disputes where cultural differences are a significant factor. Also addresses various theoretical and practical implications of indigenous conflict management techniques and beliefs found in different cultural settings.

CARM 6130 Practicum I (3 credits)

This course is a field research project that incorporates classroom knowledge and real-world settings. Students will demonstrate their ability to apply theory to practice and analyze situations utilizing knowledge from previous course work. Pre-requisites: CARM 5000 and CARM 5040 AND 1 of the following CARM 5100, CARM 5140, CARM 6140.

CARM 6140 Facilitation Theory and Practice (3 credits)

This course develops students' skills in working with groups. It incorporates theories and models of group dynamics, facilitation, and group development, as well as workshop development and delivery. This course uses a practice-based approach, including role plays and workshop presentations. Prerequisites: CARD 5040 or CARM 5040.

CARM 6150 Professional Practice and Ethics (3 credits)

This course will examine current ethical challenges of practice in the field of conflict resolution and peace studies. Some questions to be explored will include the

following: What are major ethical dilemmas facing peace and conflict resolution practitioners? Can there be and should there be universally-accepted, over-arching standards of ethical conduct and practice that guide their work? Through a combination of seminars, cases studies and discussions, students will explore challenges facing peace and conflict resolution practitioners, working at the local, national, and international levels. Students will analyze the ethical issues and dilemmas related to specific cases, research what various scholars and practitioners have written about best practices to determine what was done 'right' and what could have been improved. Students will also collaborate on reasoned approaches and responses to ethical issues in conflict resolution practice. This course takes a personal development approach, incorporating a learning laboratory model wherein students can learn about their personal values, biases, prejudices, and working assumptions in order to become reflective and ethical practitioners. Through the use of peer review exercises and several self-assessment tools, students will be able to explore their own personal readiness to help others prevent and resolve their conflicts. Students will also identify areas for further development and ways to help overcome these shortcomings. Prerequisites: 2 of the following 3: CARM 5100, CARM 5140, CARM 6140.

CARM 6170 Violence Prevention and Intervention (3 credits)

This course examines various theories of human aggression and violence, exploring their underlying assumptions about human nature and the causes of violence. Also included is an introduction to a range of violence intervention and prevention approaches developed for use at the interpersonal, intergroup, and societal level. Offered fall.

CARM 6180 Internship in Training and Practice in Conflict Resolution (3 credits)

This internship course requires students to work with outstanding organizations, agencies, centers, for-profits, non-profits, communities, governmental agencies, etc., to gain direct and applicable experiences in training and practice sites within the field. This course engages students to work within real-world settings to help prepare them for careers and future employment in mediation, peacebuilding, negotiation, public policy, facilitation, social movements, dispute systems design, arbitration, and other conflict resolution activities. It enables students to apply what they have learned in their program to make meaningful impacts in their sites aimed at conflict prevention, conflict management, conflict resolution, conflict transformation, peacebuilding, and social change. Students will develop invaluable skills and abilities within their sites while simultaneously contributing to their sites by applying what they have learned from their graduate program. Students may work with established partnerships of our department, or they may seek approval for a new site if it meets the criteria and standards of the department in advance of the course. Frequency: Fall, Winter, Summer.

CARM 6450 M.S. Capstone (3 credits)

This course will expose students to the practical aspects of the scholarship of engagement approach. It will provide students with a unique opportunity to examine real cases of conflict resolution programs from the moment an idea emerges, through the design, implementation, execution, to the evaluation stage, all with the guidance and commentary of the authors of the projects. The course will focus on interventions in the areas of teaching, research and service, and the specific examples studied will reflect the past and ongoing scholarship of engagement initiatives undertaken by all faculty of the department. Class activities will involve a close collaboration between the course participants and all faculty at the department of DCRS. The delivery methods will include reading, lectures, and experiential learning exercises.

CARM 6600 Special Topics in Conflict Resolution (3 credits)

The purpose of this course is to provide participants with knowledge, skills, and attitudes to be effective in groups with an emphasis on analyzing and managing overt and covert conflict. The course also examines issues of communication, leadership, power, and authority in relation to group and interpersonal effectiveness. This course enables participants to cope with complex issues as they emerge in the natural life of small groups, large groups, and organizations. Learning about group life is gained through direct experience in a temporary learning organization created in the course. The course is designed as a living laboratory where members can experience and explore group life as it occurs. Frequency: Occasionally.

CARM 6601 International Conflict Resolution (3 credits)

This course reviews international conflict resolution in many settings and includes informal mediation by private interveners and scholar-practitioners; formal mediation by individual, regional, transnational, and international organizations; and mediation within small and large states.

CARM 6602 Resolving Environmental and Public Disputes (3 credits)

This course focuses on the theoretical bases, practical applications, process orientations, and actual intervention into complex multiparty, multi issue public disputes. Focus is on social/environmental interactions and sources of political and economic conflict over human health environmental protection and natural resource scarcity.

CARM 6604 Gender and Conflict (3 credits)

This course examines gender roles in conflict and how conflict is experienced and perceived by men and women. Course material includes feminist theories, men's studies, religion, literature, history, anthropology, film, television, psychology, the justice system, and alternative dispute resolution.

CARM 6606 Advanced Mediation Skills (3 credits)

This course will oblige students to examine conventional wisdom and the students¿ own beliefs to develop a more sophisticated understanding of the potentials and limits of mediation in a wide variety of contexts. The course will cover selected mediation issues and skills in more depth than possible in an introductory survey of mediation. Students will analyze issues such as convening mediations, eliciting and satisfying interests, maintaining impartiality, dealing with power imbalances, handling apparent impasses, identifying and handling various ethical problems, and writing agreements. Students will also discuss practical aspects of operating a practice such as getting clients, billing, developing good relationships with other professionals, and creating standard forms. Pre-requisites: CARM 5100

CARM 6607 Ethnopolitical and Community-Based Conflicts (3 credits)

This course introduces the major methods used by states, international organizations, and conflict resolution practitioners to eliminate, manage, and resolve ethnic and community-based conflicts. Case studies are used to explain conflict escalation and de-escalation, and mechanisms of conflict intervention. Offered occasionally.

CARM 6608 Nonviolent Social Movements (3 credits)

This course focuses on 20th-century nonviolent social movements such as the women's rights and suffragist movement; Gandhi's prolonged struggle against British colonialism; Martin Luther King Jr., and the American Civil Rights movement; the American peace movement against the war in Vietnam; and the nonviolent movements that resulted in the end of communist rule in Eastern Europe.

CARM 6610 Family Violence: The Effects on Families, Communities and Workplaces (3 credits)

This course explores the overall effects of trauma and violence on individuals, families, communities, and the workplace. Issues of abuse, violence, and systemic responses are explored in relation to their effect on individual behavior, family dynamics, service provision, and community systems. Methods for identifying such issues in the context of family mediation and other types of conflict intervention are explored.

CARM 6611 Race and Ethnic Relations in America (3 credits)

This course examines the social constructionist approach toward the study of racial and ethnic conflict and conflict analysis in the U.S. It is designed to assist students in increasing their ability to analyze racial issues from a historical and contemporary perspective, and to explore the basic theoretical paradigms that have been used to conceptualize the idea of race and ethnicity from the 19th century to the present. The course will also explore the effects of contemporary policies in addressing racial and ethnic inequities, and strategies to combat racism. Frequency: Occasionally.

CARM 6612 Conflict Transformation, Reconciliation and Healing (3 credits)

This course examines the rise of collective violence and genocide in the 20th century, and the rich and troubling range of responses to massive societal repression such as: remembering and forgetting, judging and forgiving, reconciling and avenging, and grieving and education. This course also explores the possibilities and problems of reconciliation and healing in interpersonal conflicts, focusing on topics such as the needs and experiences of victims and offenders, the functions of punishment, and the concept of restorative justice.

CARM 6613 Arbitration Theory and Practice (3 credits)

The purpose of this course is to help understand the theory and processes of arbitration for a wide variety of cases. The course will cover the nature, enforceability and scope of arbitration clauses; other requirements to arbitrate; the powers of arbitrators; issues that typically arise in arbitration; the conduct of arbitration hearings; the remedies available in awards under federal and state law; and proceedings to confirm or to modify or vacate arbitration awards.

CARM 6615 Storytelling: Identity, Power, & Transformation (3 credits)

This course will examine the role of narrative and storytelling in the conflict resolution theory, research, and practice: (1) Theory regarding the relationship between language and power will be reviewed. How storytelling and narrative can be a part of destructive conflict or constructive conflict resolution will be explored. (2) The nature of narrative-based research and how such research can be empowering will be examined. (3) Case studies and possibilities for using storytelling-based projects as a means of peace building will be discussed.

CARM 6616 Trauma and Violence Global Perspectives (3 credits)

This course will look at issues of war, regional violence, torture, forced relocation, ethnic cleansing, rape and other issues related to regional conflict, and then focus on conflict intervention models. Relief and assistance programs from humanitarian relief, the Red Cross, UN programs, Quaker NGO's, Christian relief efforts, and others will be examined with a focus on trauma intervention as a conflict resolution career option. Discussion will center on how conflict specialists can connect, work with, and influence humanitarian aid efforts, capacity building, democratization efforts, and conflict transformation projects.

CARM 6618 The Reflective Practitioner: Consulting, Conflict & Change in Org. Settings (3 credits)

A hands on, clinically based course in which students will form consulting teams (like in consulting firms) and actually do consulting in the community.

CARM 6619 Strategic Community Planning and Partnerships (3 credits)

An overview of the community from a strategic perspective, identifying: social, economic, demographic and cultural trends and patterns within the community; areas of concern for law enforcement and government; ways to initiate and develop community-wide strategic planning for peaceful community relations and growth; building community partnerships between law enforcement, the criminal justice system and community agencies and groups; community justice; and the use of data, data collection and analysis in developing and implementing collaborative long and short term plans for community development, problem solving and funding initiatives. Offered occasionally.

CARM 6620 Academic Writing (3 credits)

This writing course is a user-friendly seminar on how to write clear, unpretentious academic prose. Technical issues are covered that include sentence structure, punctuation, tenses, idea development and presented in a non-technical manner. The focus includes strategies for creating and editing manuscripts and for researching, organizing, and writing literature reviews.

CARM 6621 Introduction to Human Rights Theory & Practice (3 credits)

This course provides students with an introductory survey of political, philosophical, historical, economic, and legal considerations related to fundamental human rights concepts. Students will examine human rights issues in both domestic and international arenas. In particular, the course addresses the issues of the ideological and cultural origins of human rights theory; the sources of rights and rights violations; the impact of the nation-state system, governments and other institutions (such as corporations, churches and universities), and domestic and foreign policies particularly of the U.S.) on human rights law and enforcement. Finally, students examine the wide variety of political, civil, economic, social and cultural rights warranting protection. Offered occasionally.

CARM 6622 Legal Concepts (3 credits)

This course will provide an overview of the U.S. legal system as it relates to alternative methods of resolving conflicts. Students will learn legal terminology, the judicial system, judicial procedures, the fundamentals of legal research and legal writing, and where alternative methods such as mediation and arbitration relate to legal processes. Students will also explore legal and procedural concepts such as: collaborative legal practices, state and federal authority, restorative justice, victim-offender programs, and the relationship between U.S. and international legal procedures. The class will be interactive with research, writing, class presentations, and guest presentations.

CARM 6624 Advanced Practicum (3 credits)

This practicum experience is a faculty-driven experience in which a faculty member will design a project in conjunction with another organization or university and students selected for the practicum will work on that project with the faculty member. The project may also entail a one to two week mandatory field experience in which students and the faculty member will work on the project on location. Students will be responsible for their expenses. Students will apply for this practicum and must be selected.

CARM 6625 Global Practicum (3 credits)

The Global Field Studies Practicum Course in Conflict Resolution incorporates a field-immersion component as part of this practicum course. It is developed around principles of multidisciplinary conflict analysis, management, and resolution which promote scholarship of engagement in communities through research, education, and practice. This course provides a solid knowledge base by the application of conflict resolution concepts through experiential learning that lead to professional development. The field experience enhances students' cross-cultural skills, appreciation and understanding of diversity and global issues. During the course students are exposed to a diverse community of researchers, practitioners, policy makers, who share with students their experience and career journeys. The course provides for the enhancement of students' career development plans and requires the completion of all required practicum forms and paperwork. For their final project students are expected to work with a partner organization developing research, training, or consultancy projects where students apply theoretical concepts within a practical framework.

CARM 6628 Schools, School Systems and Conflict Resolution (3 credits)

The course addresses systemic drivers of and techniques for resolving conflicts within the school and its community. Students will learn models for developing a peace and human rights culture throughout a school or school system, providing training for parents, teachers, students, and school board. Students will study and develop such curriculum and programs in class. The course also examines methods to manage conflict, including using conflict resolution practices such as mediation, negotiation and dialog in crisis situations such as hate crimes on campus.

CARM 6630 Foundations of Genocide Studies (3 credits)

This course is a survey of the causes, forms, and nature of genocide. The course addresses the complexities in differentiating human rights violations and crimes against humanity, from genocide and government sponsored mass murder. Theoretical and applied cases studies will facilitate student engagement. The course will serve as an introduction to the theories and applied practices utilized in analyzing acts of genocide. Issues addressed throughout the course will include genocidal intent, eugenics and genocide, demographic purging, as well as mass and public extermination.

CARM 6631 Entrepreneurship & Starting a Dispute Resolution Business (3 credits)

This course focuses on essential topics of business and entrepreneurship and will provide a solid and practical overview of starting and running a Dispute Resolution Business practice in contemporary times. Students will integrate theories and models from past courses, including Facilitation, Mediation, Negotiation, Conflict Coaching, Dispute Systems Design, Ombudsman, Consulting, Peacebuilding, and Training. Students will have direct experience in creating business plans, developing business profiles, designing their business structure, developing marketing campaigns, identifying their customer segments, differentiating their brand from others, and designing a progressive and professional website. Students will learn how to build, launch, and market a successful dispute resolution business while learning the characteristics of successful entrepreneurs and practitioners. Frequency: Fall and Winter.

CARM 6632 Civil Wars and Their Resolution (3 credits)

This course examines the various complexities of violent civil conflict. Using a general survey of the field, supplemented with numerous civil war case studies, students explore the various factors contributing to the outbreak of civil wars, the processes and consequences of such conflict, as well as the variety of methods available for resolution.

CARM 6633 International War and Resolution (3 credits)

This course focuses on various aspects of international war and peace. Topics of discussion include defining war, historical patterns of warfare, motivations to engage in such conflict, as well as efforts to deter or resolve international war. Offered occasionally.

CARM 6634 Metropolitan Conflict (3 credits)

This course will explore historical and theoretical explanations for the different types of conflict prevalent in various metropolitan areas. A series of case studies, focusing on both cities within the United States and abroad, students will explore such topics as the role of ethnicity in conflict, structural inequalities of the system, urban/suburban relations, urbanization, and metropolitan growth and development. Offered occasionally.

CARM 6635 Advanced Facilitation: Facilitating Complex Group Problem Solving (3 credits)

This course focuses on facilitation in complex problem situations. The focus will be on intercultural settings. Various approaches to complex facilitation are introduced, with special attention to dealing with difficult parties and principles of Interactive Management (IM). This course will provide students with the skills necessary to perform a facilitation workshop with a computer-assisted program developed to

resolve complex problems. Students will gain experience as participants in problem-solving sessions, which they will study and analyze. Class sessions will consist of role-plays, discussion and analysis, and presentation of information. Prerequisites: CARM 6140. Offered occasionally.

CARM 6636 Education in Emergency and Conflict Contexts (3 credits)

This course explores the issues arising for education systems in emergency and conflict contexts. Students will interact with professionals working in such contexts. They will also explore the issues facing education systems in such contexts, up to and including education post-civil war, refugee education and education during active conflict. What role do education systems play in such contexts? How can the UN's Sustainable Development Goal 4 (quality education for all) be met even in such circumstances? What tools and strategies can leaders, educators and students use to ensure education, curriculum and pedagogy is "conflict sensitive"? Frequency: Fall Odd Years.

CARM 6638 Conflict & Crisis Management Theory & Practice (3 credits)

This course is an overview of the theories of conflict and crisis management, and the intervention models and protocols used. Conflict and crisis management will be explored among and between individuals and groups, organizations, communities, and governments around the globe. Topics will include the management of violent conflicts, such as kidnapping, hostage-barricade and terrorist acts, homeland security, and the response to natural disasters. There will be interactive exercises as well as a case study approach used. Frequency: Every Year.

CARM 6639 Organizational Conflict Intervention (3 credits)

This course will explore the diagnostic techniques and tools necessary to assess organizational conflict, and tools necessary for successful intervention. Offered occasionally.

CARM 6641 Conflict and Crisis Negotiation (3 credits)

This course will provide an overview of law enforcement crisis negotiation and its application to crisis situations, such as domestic violence encounters on an individual level and hostage/barricade encounters on an organizational level. Lecture, expert demonstration, and interactive negotiation with role play will provide an experiential learning environment for understanding and applying active listening skills, empathy, rapport, influence, and behavioral change concepts to conflict and crisis situations. Frequency: Occasionally.

CARM 6643 Social Aspects of Terrorism (3 credits)

This course will examine a wide range of different cultures and societies with a special emphasis placed upon political violence. Regions explored are: Basque country, Chechnya, Colombia, Northern Ireland, Palestine, Sri Lanka, and Zimbabwe.

Of particular importance are the dimensions of terrorism, trauma, and violence through an understanding of colonialism, discourse, history, material culture, media, rebellion, revolution, and separatism. Additionally, the course will focus upon the causes of 9/11 and the recent fomentation of international terrorism. By exploring the subject of terrorism form an anthropological perspective will demonstrate the complexities and various interpretations concerning the political uses through the appreciation of interdisciplinary analysis.

CARM 6644 Consulting with leaders in organizational conflict: A four frames approach (3 credits)

Studies clearly show that successful leaders of the twenty-first century organizations need to make sense of complex conflict situations before taking action. This course will combine theory and practice to equip students to assist organizational leaders in developing both diagnostic and behavioral sophistication by using multiple frames before taking action. Participants will engage in both classroom learning, on-line assistance, and leadership coaching with a client and organization of their own choosing. Offered occasionally.

CARM 6645 Indigenous Systems of Conflict Resolution (3 credits)

This course is designed to make contributions to the field by exploring the processes of conflict resolution and peacemaking as practiced by the indigenous communities around the world. Class members will engage in an in-depth exploration of techniques of peacemaking, as practiced in various parts of the world. Offered occasionally.

CARM 6648 Researching Conflict (3 credits)

In this course, students and instructors will together conceptualize, design and carry out a mixed methods research study on a topic connected to violence. The students and instructors will decide on a research problem to be studied. The goal of the elective is to help students deepen their understanding of quantitative and qualitative research and hone their research skills. The course will be a collaborative effort, building on the experience, knowledge, expertise, and interests of all of the participants. Prerequisite: CARM 5200. Offered occasionally.

CARM 6649 Federalism and Intergovernmental Conflict (3 credits)

This course describes and analyzes the guiding principles and the operational processes of "American Federalism", as well as its intended and unintended consequences. It seeks to provide students with a working understanding of the complex set of interactions occurring between all government units and levels (national/federal, States, Counties, municipalities, school districts and special districts, townships, etc.) in the USA; the various types of conflicts which necessarily result from these interactions; and the solutions that have been implemented in the past, or are currently suggested, in order to address and resolve these conflicts.

CARM 6650 International Negotiation: Principles, Processes and Issues (3 credits)

This course describes and analyzes the major principles, processes and issues of international negotiation in the twentieth and twenty-first centuries. It seeks to provide students with the analytical tools and skills required to explain and predict the outcome of specific (bilateral or multilateral) negotiations through the study of various explanatory factors, including: stability and change in the structure of the existing "international system"; the individual characteristics of the nations-states parties (power/capabilities, interests, culture/values, negotiating styles, etc.); the strategic and tactical moves of those considered as "key player"; as well as the role of smaller states and non-state actors. Offered occasionally.

CARM 6651 Theories of Ethnicity & Nationalism (3 credits)

This course is foundational for theoretical understandings of ethnicity and nationalism. Students will analyze general theories from key debates and critically examine various points of view in relation to defining boundaries, conflict, context, difference, identity, migration, minority/majority, race, and tribalism in regard to ethnicity, as well as community, fantasy, ideology, neo-Marxism, modernism, perennialism, political, primordialism, semiotic, sociocultural, socioeconomic, imagination, invention, and tradition in association with nationalism and nationalists, and the entwinement and interrelation between all of these prevalent notions and themes. Upon completion of the course students will better grasp ethnic belonging, ethno-nationalist conflict, and intra/inter-group disputes from the standpoint of applied theory, cultural relativity, and humanism. Offered occasionally.

CARM 6652 History, Memory & Conflict (3 credits)

Why do certain cycles of violence and revenge seem to be passed down from generation to generation? How do we in the present remember and interpret the traumas and conflicts our society endured in the past, and how might this lay the groundwork for the conflicts of today? By exploring the significance of history, memory, and cognition, this course provides the most recent theoretical debates on these issues and their significance for understanding why populations persist in a state of violence. Questions to be considered include: how does the past become relevant to the present, and how do we as peace-builders respond to interrupt cycles of historical violence? Others are: how is the past re-invented, mythologized about, and re-imagined? How do the powerful manipulate collective memory to perpetuate cycles of violence? Why does memory have such an important role in the persistence of intractable hostilities and how does the learning of violence become transmitted from one generation to the next? Using cutting-edge theories and case studies from today's headlines, and incorporating tools of practice such as art and storytelling, this course will empower students to be a part of peace-building in the context of entrenched historical conflict.

CARM 6653 Conflict in Conservation and Development (3 credits)

This course examines conflict in conservation and development. It covers theoretical frameworks and introduces participatory tools that will enable students to more effectively analyze and address situations of conflict in conservation and development initiatives. The course familiarizes students with concepts and methods from natural resource management, sustainable livelihood systems and collaborative learning approaches.

CARM 6654 Islam, Conflict, and Peacemaking (3 credits)

This course will provide an historical overview of Islam, including an introduction to belief systems, the different branches of the faith and schools of Islamic law with a special emphasis on Muslim doctrines related to conflict and peace. It will include the contemporary era and investigate Muslim engagements with modernity and discuss the varied responses and perspectives. There will some discussions of international relations, but the course will also emphasize micro level issues. Students will have the opportunity to develop research projects designed to extend their understanding of Islam and its potential as a resource for peace building.

CARM 6655 The Interdisciplinary Writer (3 credits)

This course is designed to assist graduate students in creating essays, thought papers, and other pieces of writing that reach an intended audience with clarity, skillful craft, and purpose. It includes reading and writing assignments for an academic setting focused on interdisciplinary perspectives. Students will be expected to participate in class discussions and improvisational writing exercises. Because this is a writing course, rather than just a course about writing, there will be a workshop component to the class. This means that all participants will bring in copies of their work to share to develop writing strengths and skills, improve editing abilities, and better understand how an author's writing and those of others, a piece's purpose, it's organizational structure, level of craft execution, authorial voice, and engagement of the audience.

CARM 6656 Gender, Conflict and International Development (3 credits)

This course provides the student with essential understanding of factors that shape the social, political and economic roles of women and men in developing countries. The course covers the concepts of gender in conflict resolution and peace building by examining women and men's human rights and security, and the consideration of gender within developmental policies. The course provides an overview of concepts and gender analysis frameworks from a historical perspective. Students examine specific projects aimed at integrating women into community development.

CARM 6657 Conflict Coaching Theory and Practice (3 credits)

This course examines the growing use of conflict coaching as a conflict intervention process and introduces different models and related theoretical foundations. The integration of theory and practice will emphasize the various stages including identity framework, narrative, needs assessment, goal setting, and feedback, utilizing a relational and systems orientation. The course develops coaching skills, strategies, and knowledge, and uses a practice-based approach, including role-plays and case studies.

CARM 6658 Transformational Narratives (3 credits)

Across cultures, people effectively communicate about their conflicts and issues through narratives. In any helping profession, it is effective to create useful change with a clear understanding of the strategies of transformational narratives. By understanding what creates change in stories, we can help people rewrite their own accounts in ways that redefine their possibilities. This course offers analyses of narratives from traditions of conflict resolution and other interdisciplinary perspectives, promoting the ability to reframe, refocus, and creatively intervene in stories of a personal and social nature to open useful possibilities for people who carry stories of unresolved struggle.

CARM 6659 Conflict and Peace Building in Africa (3 credits)

This course examines conflict and peace building dynamics in the African continent. Its content includes a survey of contemporary macro-level conflicts in Africa and an examination of their historical and more immediate causes. Class participants will explore the causes and effects of such conflicts and investigate prospects for constructive transformation. Past and ongoing resolution and peace building efforts will be discussed, and class members will propose a peace building strategy for a case of their choice.

CARM 6660 Conflict Management in Groups: Overt and Covert Dynamics (3 credits)

The purpose of this course is to provide participants with the knowledge, skills and attitudes to be effective in groups with an emphasis on analyzing and managing overt and covert conflict. The course also examines issues of communication, leadership, power and authority in relation to group and interpersonal effectiveness. This course enables participants to cope with complex issues as they emerge in the natural life of small groups, large groups and organizations. Learning about group life is gained through direct experience in a temporary learning organization created in the course. The course is designed as a living laboratory where members can experience and explore group life as it occurs.

CARM 6661 Middle Eastern Conflict (3 credits)

This graduate seminar explores the many different types of conflict found in the Middle East. It seeks to provide students with the analytical tools and skills required

to explain the causes, understand the actors, and analyze and/or predict the outcomes of specific Middle Eastern conflicts. To meet these objectives we will evaluate broad types of Middle Eastern conflict such as religious, ethnic, and cultural, militarized conflicts, civil wars, and occupations. We will also evaluate Middle Eastern conflict negotiation, the Middle East peace process, why negotiation and peace has failed, and what needs to be done so that Middle East peace could be achieved. Finally, we will look at the future of Middle Eastern conflicts.

CARM 6662 Political Violence (3 credits)

Political Violence is a graduate seminar that explores the many different types of political violence; specifically looking at revolutions, terrorism, and transitional-institutional political violence. This seminar examines a wide range of topics in order to provide the student with a deeper understanding of political violence. We will engage in a thoughtful and in-depth examination of the definitions, causes, and consequences of political violence, as well as consider the different means to countering political violence.

CARM 6663 Introduction to Peace Studies (3 credits)

This graduate seminar explores theories of peace and war, as well as the promotion of peace. This seminar provides students with an in-depth understanding various depictions of peace, emphasizing the concepts of positive peace, social justice, and international development. Peace will be examined systemically, highlighting connections between the experience of peace at the personal, community, national, and international levels. Students will therefore also investigate the relationships that human nature and culture have with peace, war, and violence. In addition, the course will investigate how international bodies promote peace and mitigate the effects of war. Students will also examine the causes of war and just war theory. The field of peace studies will be outlined as well, including a brief history of the field.

CARM 6664 Restorative and Transitional Justice (3 credits)

This graduate seminar explores the theory and practice of both restorative justice and transitional justice. This seminar provides students with an in-depth understanding of the theory upon which restorative justice and transitional justice practice rest. Various forms of practice, stemming from diverse practice settings, are also examined, including victim-offender mediation, victim-offender dialogue in cases of severe violence, family group conferencing, peacemaking circles, and restorative justice practice in schools. The seminar offers students opportunities to role-play and practice restorative justice skills. Forms of transitional justice are also surveyed, particularly truth and reconciliation commissions and their work around the globe.

CARM 6667 Advanced Transitional Justice (3 credits)

War and large-scale violence deeply scar individuals and societies. Peace does not come with the silencing of the guns and the danger of conflict resurgence is

extremely high in the immediate aftermath of hostilities. Long term resolution of conflicts requires that the damage of past conflicts be addressed so as to enable societies to progress into peaceable, just futures. Transitional Justice has grown into a new subfield of study, and it addresses some deeply challenging questions arising out of violence. How can societies torn apart by war, genocide, atrocities, and dictatorships emerge into a new and brighter future? Can people and citizens deeply scarred by violence learn to forgive, forget and/or co-exist? Or does true healing require punishment, vengeance, and retribution for crimes past? In this class we balance moral, legal, and psychotherapeutic theories against the realities of historical and contemporary examples. We will examine the solutions proposed so far including the International Criminal Court, Truth Commissions, Memorializations, Reparations etc. We will look at some specific exemplars such as South Africa, Bosnia-Hercegovina, Sri Lanka, Canada, Argentina and others.

CARM 6668 Organizing Nonviolent Social Change (3 credits)

This is a practice course that aims to provide students with the skills necessary to make nonviolent social change happen. It grows out of experiences in legislative advocacy in Washington DC and community mobilization on conflict resolution and federal appropriations allocations for HIV Aids programming. Students will explore some of the practicalities of nonviolent social action and how to participate more effectively in initiatives. Cases of nonviolent struggle, principles of strategy, and the techniques and methods of nonviolent action will be covered. Some skills covered will be: How to frame messages for mobilization, how to raise funding (including taking advantage of internet use), how to work with the media etc. Students will be assigned skill-based exercises like creating posters (hard copy or electronic), writing talking points for legislative testimony etc. We will use strategies from Gene Sharp and Saul Alinsky (tutor to Hillary Clinton and President Obama).

CARM 6669 Theory and Practice of Peace Education (3 credits)

This course will introduce students to the central concepts, theories, current debates and cutting-edge practices as regards peace education. Essential questions include what peace education is, experiential learning, how do faculty design curriculum around peace education, how faculty can address nonviolence in the classroom, best practices in assisting students to understand the role of power and inequalities in conflict, and how to facilitate student (and teacher) understanding of entrenched historical conflicts.

CARM 6670 Introduction to International Relations and International Issues (3 credits)

This course is an introduction to world politics and is intended to give the student a better understanding of international relations and the complex issues and perspectives affecting the world community. We will investigate many aspects of international relations such as the dominate theories of international relations, the history of the nation-state, the definition of power, Islamic fundamentalism, terrorism, war, ethnic conflict, political economy, international institutions,

transnational organizations, trade, modernization, dependency theory, imperialism, globalization, and the foreign policy of the United States and its impact on the world community. Students are expected to keep up to date with current global events by reading an international newspaper each day and being prepared to connect and apply those current events to the topics covered in class.

MATG 5005 Statistical Inference (3 credits)

An intensive first course in Biostatistical methodology: focusing on problems arising in public health, life sciences, and biomedical disciplines. Summarizing and representing data; basic probability; fundamentals of inference; hypothesis testing; likelihood methods; Inference for means and proportions; linear regression and analysis of variance; basics of experimental design; nonparametric statistics; logistic regression; introduction to bioinformatics and methods used in bioinformatics including clustering; introduction to Bayesian Methods. Prerequisite: None. Frequency: Fall.

MCMS 5500 Advanced Biochemistry (3 credits)

Structures and functions of the four major biological molecules (amino acids, lipids, carbohydrates, and nucleotides) and their metabolism will be discussed. Students will learn the structural-functional relationship of proteins, lipids, carbohydrate macromolecules. Fundamental biochemical processes related to metabolism including energetics, signal transduction, regulation and enzyme kinetics will be presented. Students will also learn the biochemical roles of vitamins, enzyme cofactors, hormones, drugs, antibiotics, and toxins. An emphasis will be placed on understanding the clinical applications of biochemistry. Experimental techniques used to study biochemistry will be illustrated. Frequency: Fall.

MCMS 5600 Advanced Organic Chemistry (3 credits)

The course provides students with organic chemistry knowledge to design advanced synthetic routes as a necessary skill required in the field of drug synthesis and modification. The course covers usage of protecting groups in synthesis, stereochemical considerations of molecules, functional group transformations and new carbon-carbon bond forming reactions as well as a detailed use of organometallic reagents, which are becoming increasingly important in today's synthetic approaches. A secondary focus will be placed on macrocycles, which are an emerging area in medicinal chemistry. Naturally derived as well as synthetically designed macrocycles and their functions will be discussed. Frequency: Every Fall.

MCMS 5700 Inorganic Medicinal Chemistry (3 credits)

The course provides students with a detailed knowledge of fundamental aspects of bioinorganic medicinal chemistry, while focusing on current topics, e.g. metal-based therapeutics, anticancer drugs, MRI contrast agents, biochemistry of metalloenzymes, metal containing pharmaceuticals, and biomedical applications of metal-containing luminophores. Students who complete the course are expected to

understand the concepts of coordination chemistry in biological environments, and to utilize this knowledge to analyze the influence of such an environment on the reactivity of a metal center. This knowledge can be applied to expand the application of bioinorganic materials in the field of medicinal chemistry. Prerequisite: BMHS 5500 Advanced Biochemistry. Frequency: Infrequent.

MCMS 6000 Advanced Chemical Instrumentation (3 credits)

Analytical instruments are essential for advancing many areas of science and industry as they enable the identification and quantification of chemical compounds in complex matrices. This course emphasizes the theory, fundamental principles, recent advances, performance characteristics, mathematical descriptions, and applications of modern chemical instrumentation. The lecture topics covered in this course are supplemented by canonical and recently published articles from peer-reviewed scientific publications. The selection of these readings is designed to provide solid classical grounding in the fundamental principles and mathematical concepts governing the design and operation of analytical instruments, while emphasizing the utility of these instruments in overcoming contemporary scientific challenges. Frequency: Every Fall.

MCMS 6100 Principles of Drug Design (3 credits)

The Principles of Drug Design course aims to provide students with an understanding of the process of drug discovery and development from the identification of novel drug targets to the introduction of new drugs into clinical practice. It 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. Recent advances in the use of computational and combinatorial chemistry in drug design will also be presented. Frequency: Every Winter.

MCMS 7000 Internship in Medicinal Chemistry (3 credits)

The purpose of this course is to provide the student with supervised research experience in a chemical or chemical-related organization, school, or department. This experience should expose the student to research and/or development in the chemical profession. The internship experience site must be approved by the department. Frequency: Every Fall and Winter.

MCMS 7100 Capstone in Medicinal Chemistry (3 credits)

This capstone course requires students to prepare a scholarly manuscript, based upon a comprehensive literature search, review, and synthesis of a chosen and approved topic. It is similar to a thesis, in as much as data need to be acquired and analyzed within the framework of a scholarly article with the exception that the data can be acquired from the literature. A comprehensive literature search is expected,

and students are encouraged (where appropriate) to talk with workers actively engaged in research relevant to the topic. Frequency: Every Fall and Winter.

MCMS 7200 Research in Medicinal Chemistry (3 credits)

This course immerses students in faculty-guided research in medicinal chemistry. This course serves as a culminating experience in the MS in Medicinal Chemistry degree and validates the research ability of students. Students may subsequently undertake the Thesis in Medicinal Chemistry Course and prepare from their experimental results a MS thesis in Medicinal Chemistry. Frequency: Every Fall and Winter.

MCMS 7300 Thesis in Medicinal Chemistry (3 credits)

The master's thesis is an original research project completed and conducted by the student in MCMS 7200 - Research in Medicinal Chemistry courses under the supervision of a faculty mentor. The student presents the project to the Graduate Committee and defends the research findings. The completed thesis is a piece of original scholarship contributed to the field of medicinal chemistry. Prerequisite: MCMS 7200 - Research in Medicinal Chemistry. Frequency: Every Fall and Winter.

MPSE 5010 Biostatistics (3 credits)

This graduate course will introduce the most commonly used statistical tests and procedures to analyze biological and ecological data. The main objective is to prepare the students to identify the most correct statistics to analyze biological data, perform the statistical analysis in R and correctly interpret the results. Lectures will consist of short theoretical presentations followed by a lab where students will do guided exercises in R. Students will be required to do readings prior to the class on the theoretical basis of the theme of the week and perform unguided exercises (homework) to cement knowledge.

MPSE 5020 Ecosystems Processes (3 credits)

This class focuses on the structure, function, and management of natural ecosystems, with an emphasis on examples from the marine realm. The class considers ecosystems as examples of complex adaptive systems, with the first half of the course focusing on the properties of such systems, including nutrient cycling and biogeochemistry, biodiversity, trophic relationships, and their spatiotemporal context. The second half of the course considers how ecosystems are influenced by human activities, including discussion and examples of modern management frameworks.

MPSE 5030 Geological Processes (3 credits)

This course reviews key concepts needed to understand the geomorphic setting students will be working in and will provide a general-knowledge background. Since it is graduate-level, students are required to enhance frontal classroom teaching by

the instructor through research papers and their presentation on specialized subjects directly related to the taught material. Course material reviews planetary evolution, types of sediments and rocks, the reason for the existence of oceans and continents and the spatio-temporal dynamics of marine sedimentary and igneous processes. Numerous case-studies are used to illustrate concepts such a plate tectonics via island formation, and sedimentology via discussion of attractive sedimentary systems, such as coral reefs. Students will have a broad understanding of geological ocean dynamics and will be literate in present issues in the Earth Sciences. Furthermore, since quantitative data analysis is a key skill required on the job-market, students will be introduced to the freeware statistical software R and will be exposed to the analysis of realistic geological datasets.

MPSE 5040 Aquatic Environmental Chemistry (3 credits)

This course covers the principles of aquatic environmental chemistry. It describes the properties and composition of water in aquatic systems; the importance, distribution, relationships, and biogeochemical cycling of the major inorganic nutrients, dissolved gases, trace metals, and organic compounds. The carbonate system and how it is influenced by anthropogenic carbon dioxide will be a key topic, as well as the identity and fate of chemical contaminants in the aquatic environment.

MPSE 5060 Scientific Communication (3 credits)

This professional development class is designed to broaden the graduate student's career prospective and develop competencies in communication (written and oral), leadership/management abilities, and skills related to job acquisition. This class will benefit students at any stage of their graduate career or pursuing any degree type (capstone, thesis, dissertation).

MSBI 5910 Metagenomics (3 credits)

This is a discussion, analysis, and writing based course for graduate students focusing on the diverse field of metagenomics. The emerging discipline of metagenomics involves the examination of all organismal genomes in a given ecosystem including terrestrial, aquatic, animal, and human systems. Metagenomics in particular emphasizes study of cryptic, microscopic, and unculturable microorganisms such as microbes, parasites, algae, and viruses, which require the application of constantly changing genetic methods. Throughout the semester students will get introduced to the fundamental and seminal publications in the field of metagenomics and microbiomes (the examination of exclusively bacteria and archaea using traditional PCR methods) culminating in a presentation of their own design on a topic of their choosing utilizing previously published datasets and extensive literature citations from a novel viewpoint. They will then present this information to an undergraduate class in biology (likely Microbiology, Genetics, or Genomics). The course is structured around different topics every week and each week students will have to read and lead discussions on relevant articles in the field. Additionally, the semester will incorporate quest lectures and hands on coding as

part of the student's final project preparation. The course will also have a midterm and a final. There is no laboratory for this course. Frequency: Every Winter.

MSBI 5920 Transcriptomics (3 credits)

The field of Transcriptomics facilitates the study of gene expression and function in the genomic context. The purpose of this course will be two-fold. It can either serve as a standalone transcriptomic data science module in the proposed Bioinformatics concentration or supplement a degree in computer science where the students will benefit from the detailed analyses of genomic and transcriptomic data in addressing biologically relevant questions. This course will aim to use bioinformatic tools to leverage the information contained in the genomic and transcriptomic datasets to further our understanding of the genes and their functions in the genome. The course will be designed to cover concepts and tools needed to generate hypotheses, formulate research questions and analyze and interpret data from next generation RNA sequencing experiments. All data from publicly available resources will be used for hands-on projects in class. The course will be divided into 9 modules. Frequency: Every Winter.

MSBI 5930 Machine Learning for Biology (3 credits)

A massive influx of heterogeneous 'big' datasets from complex biological experiments have revolutionized the manner in which these data are analyzed. The field of Machine Learning (ML) has shown vast potential in handling and analyzing such complex data by learning from the data itself and building descriptive and predictive models to better understand the data in a biological context. ML algorithms and applications transcend an array of disciplines such as engineering, cyber-security, physics, heath care, effective web searches, self-driving cars etc., to name a few. The course 'Machine Learning for Biology' aims to use this existing knowledge to address complex biological questions with special emphasis on the inherent properties of biological data such as multi-modal, multi-omics, multi-dimensional data structures. The objective of this course will be to not only facilitate the development of biologically significant models, but also ensure the highest level of predictive accuracy and model interpretability. Frequency: Fall.

MSMS 5010 Biostatistics (3 credits)

This graduate course will introduce the most commonly used statistical tests and procedures to analyze biological and ecological data. The main objective is to prepare the students to identify the most correct statistics to analyze biological data, perform the statistical analysis in R and correctly interpret the results. Lectures will consist of short theoretical presentations followed by a lab where students will do guided exercises in R. Students will be required to do readings prior to the class on the theoretical basis of the theme of the week, and perform unguided exercises (homework) to cement knowledge.

MSMS 5020 Marine Ecosystems (3 credits)

This class focuses on the structure, function, and management of natural ecosystems, with a emphasis on examples from the marine realm. The class considers ecosystems as examples of complex adaptive systems, with the first half of the course focusing on the properties of such systems, including nutrient cycling and biogeochemistry, biodiversity, trophic relationships, and their spatiotemporal context. The second half of the course considers how ecosystems are influenced by human activities, including discussion and examples of modern management frameworks.

MSMS 5030 Marine Geology (3 credits)

Marine Geology reviews key concepts of marine geology, as needed by marine biologists to understand the geomorphic setting they are working in and to provide a general-knowledge background. Since it is graduate-level, students are required to enhance frontal classroom teaching by the instructor through research papers and their presentation on specialized subjects directly related to the taught material. Course material reviews planetary evolution, types of sediments and rocks, the reason for the existence of oceans and continents and the spatio-temporal dynamics of marine sedimentary and igneous processes. Numerous case-studies are used to illustrate concepts such a plate tectonics via island formation, and sedimentology via discussion of attractive sedimentary systems, such as coral reefs. Students will have a broad understanding of geological ocean dynamics and will be literate in present issues in the Earth Sciences.
Furthermore, since quantitative data analysis is a key skill required on the job-market, students will be introduced to the freeware statistical software R and will be exposed to the analysis of realistic geological datasets.

MSMS 5040 Marine Chemistry (3 credits)

This course is an introduction to marine chemistry. It describes the properties, composition, and origin of seawater; the importance, distribution, relationships, and biogeochemical cycling of the major inorganic nutrients, dissolved gases, trace metals, and organic compounds. Salinity, temperature and density distributions will be explained. Carbonate parameters (pH, Alkalinity, TCO2 and pCO2) and how these are influenced by uptake of anthropogenic carbon dioxide by the ocean will be a key topic as well as the identity and fate of chemical contaminants in the aquatic environment.

MSMS 5050 Physical Oceanography (3 credits)

This course is intended to give students a view to how wind, radiation, gravity, friction, and the Earth's rotation determine the ocean's temperature and salinity patterns and currents. Some important process we will study include heat budget of the oceans, exchange of heat with the atmosphere and the role of the ocean in climate, surface mixed layer, waves in the ocean, geostrophy, Ekman transport, upwelling, Rossby waves, subtropical gyres, western and eastern boundary currents.

Students will learn how to explain physical features of the ocean ranging from microscopic turbulence to global circulation.

MSMS 5060 Scientific Communication (3 credits)

This professional development class is designed to broaden the graduate student's career prospective and develop competencies in communication (written and oral), leadership/management abilities, and skills related to job acquisition. This class will benefit students at any stage of their graduate career or pursuing any degree type (capstone, thesis, dissertation).

MSMS 6001 Marine Physiology (3 credits)

This course examines various aspects of the functional biology of marine animals, including physiology, feeding, locomotion, morphology and sensory biology. Basic functional biology and physiological concepts will be taught, and then expanded upon to identify how animals have adapted to deal with major biological challenges found in the marine environment, such as pressure and temperature extremes, large salinity fluctuations, extremely low light levels, etc.

MSMS 6002 Coral Reef Ecology (3 credits)

The decline of coral reefs worldwide is a pressing concern for scientists and managers. Thus, it is important to understand the complex ecological relationships of coral reefs in order to determine how this diverse ecosystem will respond to current and future threats. This course will introduce students to the general biology, geology, and ecology of scleractinian corals and coral-associated organisms and examine the importance of seagrass and mangrove communities. Material will be presented from a global perspective, with focus on the South Florida and Caribbean marine environment. Following the presentation of material by the professor, active classroom discussion is required.

MSMS 6003 Deep Sea Biology (3 credits)

The deep sea is the largest living space on the planet, with some of the most diverse, complex and extreme environments on the planet. This course will cover major topics in deep-sea biology, including depth zonation, energetics, adaptations, extreme environments, sensory biology, and anthropogenic threats. This course will provide you with a basic understanding of what we know (and don't know) about deep-sea ecosystems, the methods used to study this environment and inhabitants, and it will create an opportunity to discuss major current questions and exciting new discoveries.

MSMS 6004 Marine Fisheries (3 credits)

This course will explain the main theories and methods used in marine fisheries science, as well as providing a basic understanding of management in the United States (including the federal fisheries management council and international

regional fisheries management organization processes). Ultimately, the student will better understand the historical development of the structure and goals for U.S. domestic fisheries policies. In addition, this new course adds many of the laboratory exercises and guest lectures formerly in the Intermediate Marine Fisheries Science course, including fishing gear modifications, fish specimen preparation, and basic population modeling.

MSMS 6005 Invertebrate Zoology (3 credits)

Invertebrate zoology including introductory anatomy, physiology, phylogeny, and ecology of major animal phyla through non-vertebrate chordates and including heterotrophic protists, with emphasis on marine organisms. Prerequisites: Undergraduate Biology.

MSMS 6006 Taxonomy of Marine Invertebrates (3 credits)

Identification and ecology of marine invertebrates with an emphasis on shallow-water species of the tropical Western Atlantic. Field work and a self-paced laboratory are integral to the course.

MSMS 6007 Marine Mammalogy (3 credits)

This course provides an overview of the evolution, natural history, anatomy, physiology, biomedicine, husbandry, pathology, and conservation of cetaceans, pinnipeds, sirenians, and their allies. Graduate students are required to contribute to classroom lectures through a review of primary literature and presentation on specialized subjects directly related to the taught material. Numerous case-studies are used to illustrate concepts such as aquatic mammal diseases, direct and indirect anthropogenic impacts, and translation from terrestrial to marine ecosystems. Students will have a broad understanding of marine mammals, their role in a variety of ecosystems, and the environmental issues related to their need for conservation.

MSMS 6008 Biology of Sharks and Rays (3 credits)

Although the study of sharks generally lags behind studies on bony fishes and many other animals, our understanding of the biology of sharks and rays has improved tremendously over the past several decades. Despite much of the interest in sharks stemming from the fact that they occasionally bite humans, sharks are fascinating animals in many respects. They are highly specialized inhabitants of the sea and possess a variety of unique characteristics that are integral to their having been around for the past 400 million years. In this course, we will explore the general biology of sharks and rays by examining topics concentrating on their anatomy, physiology and biochemistry with the goal of understanding how exquisitely adapted these animals are to their environment.

MSMS 6010 Marine Apex Predators (3 credits)

Apex predators like sharks, crocodiles, bears, eagles, and dolphins all play important ecological roles in coastal and marine environments, and many are unfortunately endangered by human activities. The material covers aspects of the life histories, ecology, and conservation biology of this diverse group. This hands-on course will also provide in-depth experience with the apex predators of marine ecosystems across multiple taxa, including sharks, seabirds, teleost fishes, and marine mammals. Students will participate in shark tagging excursions, dissections of various predator taxa, and conduct field testing of several scientific methods of studying predators in natural environments.

MSMS 6011 Marine Avian Ecology (3 credits)

This course will cover the main biological and ecology aspects of avian species within the marine ecology, with a particular emphasis on coastal ecosystems. Particular emphasis is also placed on the policy and management aspects of water-associated bird species during the final third section of the course, including state and U.S. federal regulations. Students will be provided with several seminal, peer-reviewed articles and other supporting materials regarding the topic of the week and expected to read and comment to the class about their content. In addition, students will be required to develop a field observation notebook of water-associated bird species in South Florida.

MSMS 6012 Corals from the Inside Out (3 credits)

This course presents the microscopic anatomy of scleractinian corals and gorgonians (Phylum Cnidaria, Class Anthozoa) to support studies on their ecology, physiology, reproduction, biochemistry, systematics, molecular biology/genetics, immunology, embryology, and pathology. Topics covered include histology; coral diseases; sample collection, preservation, processing, and histoslide preparation (lecture and discussion only, no laboratory); and slide reading of healthy and diseased specimens using light microscopy and virtual microscopy. The course begins with online readings and research, and then students will meet at NSUOC for one week of full-time lecture and laboratory sessions. This summer only: Students may attend either the one week of full-day laboratory sessions OR attend two weeks of afternoon laboratory sessions. Participants may bring histoslides from their own research to share with the group and discuss with Dr. Peters.

MSMS 6013 Conservation and Ecology of Sharks (3 credits)

Sharks are an ancient, biodiverse, ecologically important, and highly threatened group of animals. This class will provide a broad overview of their ecology, biology, and behavior, along with the scientific tools and methods used to study these aspects of their lives. It will include a 3 day field component where students will get hands-on research experience while living aboard a research vessel. The course will also include an extensive discussion on the conservation of these animals, including a review of available laws and regulations and management bodies with jurisdiction

over each, and a review of leading environmental non-profit advocacy groups. Course Frequency: Odd Winters.

MSMS 6014 Marine Larval Ecology (3 credits)

Most marine animals have a complex life cycle with a sessile or sedentary adult stage and a dispersive larval stage. This course will expose the students to the diversity of marine larval forms and increase their understanding of the environmental factors affecting larval survival, development, dispersal, settlement, recruitment and connectivity. We will study the implications of having a larval stage for the persistence and management of marine ecosystems, and how climate change and other human-induced disturbances on larvae may affect species persistence.

MSMS 6016 Ichthyology (3 credits)

This course will provide a thorough coverage of ichthyology, the study of fishes. The focus will be on the systematics of bony, cartilaginous and jawless fishes, both living and extinct. The anatomy of fishes will be detailed, followed by a multi-lecture series treating the major lineages of fishes. Lab exercises will involve anatomical study and taxonomy of extant fishes. Following systematic lectures key ecological aspects of fishes will be examined, including trophic ecology, growth and reproduction, and community structure. These ecological elements will be traced back to the evolution of major lineages to allow student understanding of why certain fish groups occur (or do not occur) where they do. In addition to in-lab work, students will gain experience in field sampling techniques around the Oceanographic Center in order to acquire fresh material for laboratory exercises.

MSMS 6017 Tropical Fish Biology (3 credits)

This lecture/field/laboratory course emphasizes the ecology and identification of Caribbean inshore and coral reef fishes. Lectures concentrate on general ecology (e.g., planktonic existence, reproductive strategies, feeding methods, distributional determinants) and species-specific ecology (e.g., diel and seasonal rhythms, food, reproduction) as well as the identification and taxonomy of approximately 200 species. Field and laboratory periods emphasize collecting and museum techniques as well as the use of dichotomous identification keys.

MSMS 6018 Coral Reef Assessment (3 credits)

This course is designed to teach basic scientific diving techniques, especially as applied to coral reef assessment, and provide continuing SCUBA diving education. Upon successful completion of the course, the student will be a Scientific Diver in the NSU OC Scientific Diving Program. In addition, the student will have the opportunity (not required as part of the course) to acquire higher recreational PADI certifications including: Advanced Open Water Diver, Rescue Diver, and several other specialty certifications.

MSMS 6019 Marine Speciation and Diversification (3 credits)

We are in a renaissance of research on species, speciation, and diversification driven largely by the explosion of large molecular data sets and enormous advances in computational phylogenetics and phylogenetic comparative methods. At no point since Darwin's On the Origin of Species in 1859 have we made greater advancements in the study of species diversification, and yet, the gap between our voluminous understanding of microevolution and macroevolution remains and studies overthrowing long-standing hypotheses abound. This course reviews our current understanding of the modes and mechanisms of speciation and species diversification and examines the latest research that challenges our most basic hypotheses. This course is a reading and discussion intensive course that is intended to inspire independent thinking and scientific debate among the students. There is no text sufficient to cover the scope of this course, rather students will read selected primary literature, reviews, and book chapters to survey broad perspectives and identify broad patterns across multiple disciplines. Frequency: Odd Year Fall.

MSMS 6020 Histology and Ultrastructure of Marine Organisms (3 credits)

This intensive course will examine the fine and ultrastructure of marine organisms and range in focus from bacterial cells to fish tissue. Lectures and labs will be conducted to examine structure and function of tissue and cells of several marine groups. Light and electron microscopy in conjunction with molecular methods for study of bacterial cells such as FISH (Fluorescence In-situ hybridization) will be discussed. Additionally, the complementary nature of cell and tissue imaging using light and electron microscopy will be examined. Fixed and embedded blocks of student research specimens will be supplied and students will section and stain their samples for examination in the light and/or electron microscope. Imaging and image capture methods including quantification of structural features using ImageJ will be conducted. Students will prepare their results for presentation and submit a term paper at the end of the semester.

MSMS 6021 Histology and Ultrastructure of Marine Organisms (3 credits)

This intensive course will examine the fine and ultrastructure of marine organisms and range in focus from bacterial cells to fish tissue. Lectures and labs will be conducted to examine structure and function of tissue and cells of several marine groups. Light and electron microscopy in conjunction with molecular methods for study of bacterial cells such as FISH (Fluorescence In-situ hybridization) will be discussed. Additionally, the complementary nature of cell and tissue imaging using light and electron microscopy will be examined. Fixed and embedded blocks of student research specimens will be supplied and students will section and stain their samples for examination in the light and/or electron microscope. Imaging and image capture methods including quantification of structural features using ImageJ will be conducted. Students will prepare their results for presentation and submit a term paper at the end of the semester.

MSMS 6022 Methods in Marine Community Ecology (3 credits)

The study of ecological communities is a powerful tool with which we can understand real-world patterns of biodiversity and rates and mechanisms of species change over varying spatial and temporal scales. These studies are widely used in marine environmental management to understand how, when and where different impacts might be causing changes within marine ecosystems, and literacy in community analysis methods is a sought-after graduate skill with employers. Through this course, students will learn how typical marine communities are structured, and how to identify, analyze and interpret patterns of marine biodiversity and community composition using multivariate data analysis tools found in PRIMER with PERMANOVA software and R. Course frequency: Summer, odd years.

MSMS 6023 Animal Behavioral Physiology (3 credits)

This course will provide an overview of animal behavior and conservation, which is a growing, integrative field that stems from the application of knowledge of animal behavior to solve wildlife conservation problems. This field focuses on identifying the behavioral traits and theory that influence how animals interact with environmental factors, environmental change, anthropogenic threats and their cascading effects on other species and the broader ecosystem. During this course, we will explore theoretical concepts underpinning animal behavior and behavioral ecology, including the genetic basis of behavior, habituation and learned behaviors, foraging and antipredator behavior, discuss case studies of how behavioral knowledge is used or can be used to conserve or manage threatened species and ecosystems, and highlight current research methods in this field.

MSMS 6024 Transdisciplinary Coral Reef Science Field Course (3 credits)

Tropical coral reef ecosystems and the communities that depend on them face unprecedented pressure from climate change and other anthropogenic stressors. Proactive management and novel techniques are urgently needed to counteract the degradation of these ecosystems. As a response to the shortage of broadly trained, transdisciplinary coral reef scientists, this advanced science experience in far-north Queensland, Australia will develop a systems-based approach to target student training in a range of disciplines related to coral reef science and conservation. The field portion of this class will last for 3 weeks in Queensland, Australia, where students will have the unique opportunity to interact with experts in a range of fields, including, but not limited to, ecology, biogeochemistry, physiology, animal behavior, molecular biology, and environmental social science. Students will first learn about socio-ecological resilience and anthropogenic impacts on natural systems at the School for Field Studies (SFS), Centre for Rainforest Studies (CRS) in the Atherton Tablelands (7 days), the only place in the world where two UNESCO World Heritage Sites meet (Daintree Rainforest and Great Barrier Reef). The group will then travel to the Lizard Island Research Station (LIRS), a state-of-the-art, island-based research facility in the northern Great Barrier Reef (14 days), where students will learn from and be guided through independent research projects by a diverse group of American and Australian coral reef scientists. Through lectures, class work,

field immersions, and independent projects, these ASIs will engage students in hands-on research that fosters a transdisciplinary understanding of coral reef ecosystems. Students will engage in pre-departure activities related to coral reef science in Australia, cultural history and current socio-economic challenges facing coral reefs, science communication, and developing the independent study topic.

MSMS 6025 Transdisciplinary Coral Reef Science Quantitative and Communication Skills (3 credits)

Coral reefs are iconic ecosystems that provide goods and services to millions of people worldwide and support tremendous biodiversity. Modern coral reef science encompasses broad scientific fields, including biology, geology, chemistry, and physics. This wide-ranging research field requires a transdisciplinary effort to understand these complex ecosystems, especially in the context of local and global anthropogenic change. Cross-disciplinary training and collaboration is key to the success of coral reef science and conservation efforts. This pioneering program will teach students how holistic approaches are critical to addressing human impacts on ecosystems while preparing them to address the next big-picture scientific problems. Following students' return from the Australia field trip, this course will focus on statistical analyses, data interpretation, scientific writing, and presentation skills. This course will culminate in a Virtual Student Research Symposium attended by scientists from across the USA and collaborators in Australia, providing a public platform for students to showcase their ideas and research.

MSMS 6101 Coastal Policy for U.S. Living Marine Resources (3 credits)

This seminar-style discussion course will explain the main federal legislation governing the domestic and international management and policies surrounding marine mammals, seabirds, sea turtles, and marine fishes. This course also provides an overview of approaches and governance tools used in coastal policy and management, with specific emphasis on living marine resources, such as coral reef ecosystems. Students will be exposed to basic precepts of public policy analysis. The course will examine relevant international, federal, and state marine and coastal policy programs and issues, incorporating current events for weekly discussions.

MSMS 6102 Ocean and Coastal Law (3 credits)

A hodgepodge of laws and policies apply to the oceans and coasts. These govern private landowners, extractors of living and nonliving resources like fish and energy, shipping interests, conservation groups, reef and sanctuary managers, polluters, researchers, and many more. Layers of local, national, and international authorities create regulations and enforce rights and duties. Many living systems are in collapse, with social and economic consequences. Much ocean and coastal law is already a story of failure followed by restructuring. Our course describes legal mechanisms and underlying policies behind them. We look over examples of success and of failure to evaluate the approaches. From this we experience how these laws are created and revised, administered, interpreted, shaped by science, enforced, and how to locate and differentiate the legal provisions. Our task is to survey the six

decades or so of law in this area. We look more closely at the main categories as they each develop thru time. Climate change law is evaluated from its origins in air pollution control law development. Fisheries are depicted by major legal controversies and revisions to law. Coastal use conflicts are examined for land and marine areas. Pollution of the oceans and coasts is evaluated for law concerning liability for spills and control of land-based sources. Topics of individual interest to students are emphasized.

MSMS 6103 Invasive Species Ecology, Management, and Policy (3 credits)

This course will cover the main biological and historical aspects of invasive species ecology, with a particular emphasis on aquatic systems. Particular emphasis is placed on the development of government policies regarding invasive species and the state, U.S. federal, and international management measures intended to control the effects of current invasive species and to minimize the risk of future introductions. Students will be provided with several seminal, peer-reviewed articles and other supporting materials regarding the topic of the week and expected to read and comment to the class about their content.

MSMS 6107 Aspects of Marine Pollution (3 credits)

The course deals with various forms of environmental pollution as they affect both the land and maritime environment. Sources, measurement and control of pollution in marine and coastal environments are discussed. It examines the fate of chemicals and their biological effects on marine organisms. It also examines environmental toxicology and the general mechanisms of transport and transformation of chemicals in water/sediment systems and within marine organisms. Laboratory training will include basic laboratory techniques necessary for biological and chemical research projects. These techniques include those applicable to coral reef, ecological, toxicological and marine studies.

MSMS 6109 Marine Mammal Observation and Management (3 credits)

This course focus upon an important coastal activity around the world: marine mammal observation activities and their management. Whale-watching is an important growing industries worldwide and is often viewed as sustainable, non-consumptive strategy for the benefits of cetacean conservation and the coastal communities. The course provides an overview of historical aspects, observation activities around the word and their importance, biological and ecological impacts of navigation on marine mammals, regulations and guidelines, conceptual modelling for sustainable management and sustainable whale watching as well as research trends in cetaceans' conservation. Graduate students will go through selected lectures, will be required to up-to-date scientific literature through their synthesis and their case-study work through the semester. Course Frequency: Odd Year Fall.

MSMS 6201 GIS and Environmental Remote Sensing (3 credits)

This course assumes that you have an interest in Geographic Information Systems (GIS) and Remote Sensing. It is not intended to matter whether you consider yourself a chemist, physicist, biologist, geologist or geographer. The intention is to deliver practical experience in Geographic Information System (GIS) through analysis and visualization of spatial data gathered from tools to study the Earth, its processes, and its inhabitants. The course is designed to be accessible to anyone with a reasonable grounding in the Earth and Biological Sciences with basic computer skills and is tailored to give a general induction to a wide scope of relevant topics and spatial data. The syllabus introduces basic Earth observation principles and image classification is dealt with by providing a grounding in the basic theory underlying image processing. Analyses of commonly collected spatio-temporal biological data will be emphasized. Processing, visualization, and presentation of spatial data, generated from field studies and theoretical models, will be stressed for the purposes of analysis and publication in print and on the internet. This practical and real-world experience founded in RS and GIS theory can be brought forward to each student's individual thesis topic.

MSMS 6202 Coastal Processes and Hazards (3 credits)

This course provides a broad overview of marine and coastal processes, with special emphasis on coastal dynamics. It explores basic concepts of nearshore ocean and climate dynamics. Basic principles of physical oceanography and marine geology with respect to the coastal zone are introduced. This course provide a deep understanding of physical forces (wind, waves, tides, currents, tsunamis, hurricanes, human-made structures, etc.) which are the drivers of coastal processes, eroding, transporting and depositing sediments in the coastal zone modifying the geomorphology of coastal environments.

MSMS 6203 Climate Change and the Marine Environment (3 credits)

The purpose of this class is to provide students with an overview of climate change and how it is impacting the marine environment. Students will be introduced to concepts such as the modern climate system, what climate change is, as well as evidence for it. Students will be able to place recent climate change within the context of historical records. Topics such as ocean acidification, sea level rise, coral bleaching, hurricanes, marine ecosystems and ocean circulation patterns will allow students to explore the role that climate change is having on the oceans and coasts. Discussion will include perspectives from the scientific and social side of this issue.

MSMS 6204 Anthropogenic Impacts in Marine Environments (3 credits)

Humankind has always tended to settle around the coastal zone, and the world's oceans have long been a source of transport and natural resources, from fisheries to minerals. However, the oceans and their currents are giant interconnected conveyors of all nations' anthropogenic marine impacts.

This course will focus upon the historical patterns and influences associated with anthropogenic activities in the marine and coastal environment as well as examining anthropogenic marine impacts with policies, critical resource limitations and related slowing global economic growth. To do so, the course will examine present day major anthropogenic marine impacts, mitigation efforts, and the economic trends and future trajectories associated with human development, critical resource limitation, and related impacts on the marine environment while considering the resulting net economics resources for forecasting, ameliorating and mitigating them.

MSMS 6206 Population Ecology (3 credits)

Population Ecology reviews key concepts of theoretical ecology concerning population dynamics, as needed to understand the numerical behavior of animal and plant populations to provide a general-knowledge background. Since it is graduate-level, students are required to enhance frontal classroom teaching by the instructor through research papers and their presentation on specialized subjects directly related to the taught material. Course material reviews principals of the mathematical treatment of theoretical ecological programs, the programming background to solve these problems and applied problems of population dynamics. Numerous case-studies are used to illustrate concepts such as stability, bifurcations, basins of attraction etc. Students will have a broad understanding of ecological dynamics and will be literate in present issues in the Life Sciences. Furthermore, since quantitative data analysis is a key skill required on the job-market, students will be introduced to the freeware statistical software R and will be exposed to the analysis of realistic geological datasets.

MSMS 6207 Stable Isotopes in Environmental Science (3 credits)

This course is structured to offer a background in stable isotope biochemistry and how stable isotope ratios can be utilized in a variety of research. Presentation of a general background and history of stable isotopes will be provided and guidance will be given as the students explore their textbook and primary literature. Samples, either from the student's or professor's research, will be prepared at NSUOC by the students, and mass spectrometer analysis will be done at the Museum Support Center of the National Museum of Natural History, Smithsonian Institution. Sample stable isotope data will be presented to the class for interpretation. This course is presented as a directed independent study and will allow the students to apply the techniques and their understanding to interpreting their sample data. The lab fee includes the cost of processing up to ten samples. Course frequency: Odd Year Fall.

MSMS 6208 Aquaculture (3 credits)

This course will give the student an understanding of the basic principles of aquaculture, including production systems, water quality, nutrition, spawning, larval culture and grow-out, and culture methodologies of fish, reptiles, invertebrates (zooplankton, molluscs, crustaceans, corals) and algae. The course will consist on a series of lectures followed by readings for each learning topic and paper discussions.

The students will have the opportunity to conduct hands-on activities associated with the culture and husbandry of animals.

MSMS 6209 Biodiversity (3 credits)

Globally, biodiversity is being dramatically altered by human activities. While many species remain undiscovered, and ecological roles of existing species poorly understood, the magnitude of the changes is difficult to evaluate. This course will discuss multiple aspects of biodiversity including: the definition of biodiversity, threats to biodiversity, the role of biodiversity, and methods to study biodiversity, with an emphasis on marine conservation issues. Management approaches such as marine protected areas, no take areas, and special management areas will be studied.

MSMS 6210 Scientific Method and Experimental Design (3 credits)

This course provides a broad historical overview of biological sciences since Aristotle through Darwin with emphasis on both the experimental design of seminal studies as well as the evolving philosophical approaches to the acquisition of knowledge from methodological naturalism to critical rationalism, Karl Popper and the hypothetico-deductive model for scientific method.

MSMS 6211 Genomics (3 credits)

The primary goal of this course is to introduce and describe the latest advances in molecular biology, genomics computational biotechnology, and their interrelationships through classroom and computer laboratory exercises. Discussions will also place these topics in a marine and evolutionary context. We will study the milestone discoveries, which led to the rise of genomics, characteristics of the wide spectrum of different genomes (prokaryotic, eukaryotic and organellar), innovative molecular techniques and computational tools used to study these genomes, and the impact of genomics on current biological issues and problems.

MSMS 6213 Coral Reef Biogeochemistry (3 credits)

Biogeochemistry is a systems science that focuses on the study of chemical cycles within ecosystems. This course will take a systems approach with coral reefs, teaching students about coral reef ecosystem function, where and how chemical elements are cycled through reefs, and the potential impact of global and local anthropogenic changes to coral reefs. Reef metabolism, including calcification, photosynthesis, and respiration, will be the main focus of the course from an organism to ecosystem perspective. There will be a field component to this course, with a 3-4 day field trip at the end of the semester where students will learn and practice state-of-the-art biogeochemical techniques. Frequency: Odd Years Winter.

MSMS 6214 Symbiosis (3 credits)

Symbioses are intimate and persistent interspecific interactions that encompass the continuum of relationship outcomes from mutualisms to parasitism, and along with evolution, form the basis of our understanding of life on the planet. These relationships are biologically important because they are globally ubiquitous and form the basis of most ecosystems, but they also challenge multiple tenets of biology: (1) the concept of an individual, (2) the primacy of antagonism in explaining ecological patterns, and (3) the universality of descent with modification in evolution. In our symbiotic world, you are never alone. This course emphasizes the enormous diversity of intimate interactions between organisms and is an introduction to the biology and ecology of symbiotic associations and their evolution. This course is a reading and discussion intensive course that is intended to inspire independent thinking and scientific debate among the students. There is no text sufficient to cover the scope of this course, rather students will read selected primary literature, reviews, and book chapters to survey broad perspectives and identify broad patterns across multiple disciplines. Frequency: Odd Year Summers.

MSMS 6215 Upwelling Systems of the World (3 credits)

This course is a scientific journey to the most productive marine ecosystems of the World Ocean. Upwelling systems are special places in the oceans where nutrient-enriched water is brought into the euphotic zone to fuel phytoplankton blooms that, via marine food-web interactions, create the world's richest fish resources. This course introduces the reader to the interdisciplinary science of upwelling and provides a comprehensive overview of the world's most productive marine ecosystems in the context of climate variability, climate change and human exploitation. Course Frequency: Odd Year Summers.

MSMS 6300 Directed Independent Study (3 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of capstone or thesis proposal.

MSMS 6310 Directed Independent Study: Proposal (3 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. This DIS may be used for the completion of capstone or thesis proposal. Requires prior consultation with major professor and approval from major advisor. Frequency: Upon request.

MSMS 6320 Directed Independent Study: Field Work (3 credits)

Directed Independent Study courses are offered each term on an optional basis. This directed study must include field research within the marine sciences. Requires prior consultation with major professor and approval from major advisor. Frequency: Upon Request.

MSMS 6330 Directed Independent Study: Lab work (3 credits)

Directed Independent Study courses are offered each term on an optional basis. This directed study must include lab research within the marine sciences. Requires prior consultation with major professor and approval from major advisor. Frequency: Upon Request.

MSMS 6350 Special Topics in Marine Science (3 credits)

Topics in advanced marine biology that are not included in a regular course offering. Prerequisites may be required. Specific content and prerequisites are announced in the course schedule for the given term.

MSMS 6400 Thesis (3 credits)

Research and thesis preparation. Requires prior consultation with major professor and submission of an approved thesis proposal.

MSMS 6450 Capstone (3 credits)

An extended literature review of a subject approved by the student's advisory committee. The paper should demonstrate proficiency in library research, organization, data analysis, and writing. Requires prior consultation with major professor and submission of an approved capstone proposal.

NSAM 5001 Current and Historical Issues (3 credits)

This course is an introductory seminar dealing with current and historical issues in American national security affairs. In the age of globalization and international terrorism it is imperative that we understand the history, topics, and concepts of national security affairs. The pursuit of security involves a wide range of both domestic and international activities that fall under the umbrellas of political, economic, and military relations and procedures. This course examines the history of American security, the workings of the American national security institutions and organizations, cooperative security systems like NATO and the United Nations, international institutions, political violence, terrorism, war, and both domestic and international law on security. On all these topics, this course will emphasize both theoretical and practical issues that will further the student’s knowledge of American national security affairs.

NSAM 5002 Terrorists and Terrorism (3 credits)

This course analyzes terrorism from a number of perspectives including law enforcement (FBI), defense (DOD), and diplomatic (DOS) orientations in order to understand mitigation/prevention, preparedness, response, and recovery measures with regards to counterterrorism and antiterrorism. Individual (lone wolf) and group (Islamist) terrorist mindsets will be examined, as well as international and domestic domains.

NSAM 5003 National Intelligence Collection (3 credits)

This course examines the work of current and future managers in the federal intelligence and homeland security arenas. Students will be introduced to the various ways in which the social and behavioral sciences inform approaches to intelligence collection and analysis and how these scientific approaches can facilitate the goals of countering terrorism and hostile intelligence service actions. Specifically, the emerging field of-Futuristics will be explored in this context so that managers can forecast, manage, and create preferable future outcomes for their agencies and the nation.

NSAM 5004 Border Protection (3 credits)

This course is an in-depth analysis of the importance and the difficulties in security measures and tactics used to protect a sovereign nation's borders. Border protection is an essential part of National Security. The threats to domestic populations include drug-smuggling, terrorism, human and arms trafficking, and illegal immigration. Theoretical and applied case studies will facilitate student engagement. The course will serve as an introduction to the theories and applied practices of successful border protection.

NSAM 5005 Research and Evaluation in National Security Affairs (3 credits)

This course provides an in-depth introduction to the fundamental logic and principles of research design, with additional focus areas in critical thinking and analysis. Students will gain familiarity with key concepts in the philosophy of science and current debates over appropriate methods of data collection and analysis of the social sciences. Students will learn the differences between quantitative, qualitative, and mixed-methods research; from here the student will be introduced to the foundations of these approaches and learn what strategies, methods, and techniques are in use. Students will then be expected to formulate a research question, develop a set of hypotheses, develop a strategy for data collection, develop a literature review, and finally to formulate ways to operationalize their study.

NSAM 5010 US Foreign Policy and National Security (3 credits)

This course examines the history of United States foreign policy from World War II to the present, with an emphasis on the emergence of national security as the dominant feature of policymaking in this period. In this class, we will explore the expanding global reach of U.S. interests since 1945, paying considerable attention to the role of the Cold War and the War on Terror in the creation of and continued expansion of a national security apparatus within the United States government. In readings and course discussions students will be exposed to key concepts such as the national interest and identity, isolationism and internationalism, and realist and idealist approaches to foreign policy. Students will also be exposed to the major schools of thought on US foreign policy, and develop a greater contextual understanding of contemporary policies and issues in national security. Offered annually, Fall only

NSAM 5014 Ethical Issues in National Security (3 credits)

This course provides an introduction to moral reasoning through a philosophical examination of major ethical problems in the context of national security, such as those encountered by security professionals; intelligence gathering; military engagements; responses to terrorism, among others. The relationship between security interests and traditional democratic values such as, privacy, truth and honesty will also be explored. Student will be introduced to the idea that ethical problems are largely a matter of normative ethical (philosophical) theory.

NSAM 5015 International Relations: Theory and Practice (3 credits)

This course is a survey of the dominant theories of international relations including (but not limited to) realism, liberalism, their neo-variants, as well as critical theories. The course will examine the "great debates" within international relations and apply these theories to historical case studies and current issues in U.S. national security. Annually Winter only

NSAM 5016 Civil Liberties and National Security (3 credits)

This course focuses on understanding the interconnection between Civil Liberties and National Security. Both elements are important – the first being the mechanism by which the Republic as an entity protects itself and the second by which many of the principles of the Republic are protected. How these two elements are balanced and shaped by the needs of the day will be examined by focusing on the historical development of this interaction, as well as the modern intersection by looking at readings in history, law and politics.

NSAM 5020 International Law and Institutions (3 credits)

This course introduces students to the sources of international law, treaty and custom, and explains how the International Court of Justice at The Hague as well as American courts work with international rules in deciding cases. It considers the operation of the United Nations in creating international norms and in handling international disputes. This course covers as well bases of international criminal jurisdiction, state recognition, sovereign immunity as well as state responsibility. After considering the critical and fundamental concepts in the field, the course will explore a few interesting transnational problems relating to security issues, namely controlling piracy, preventing human smuggling, and stopping terrorism. Odd Year Winter.

NSAM 5030 American Government and Domestic Security (3 credits)

This course is examination of the domestic national security state. It will explore the ways that concerns over domestic security have shaped the actions of American government and conversely, the ways that the structures of American Government have shaped our responses to domestic security concerns. Even Year Winter

NSAM 5040 Cyber Conflict and Statecraft (3 credits)

This seminar introduces the concept of international conflict in cyber space and the related statecraft involved in addressing American national security affairs while sustaining international relationships. Every nation, particularly the United States, finds itself ever more dependent upon cyber space and rapidly advancing technology in this age of globalization. The virtual impossibility of national and international law enforcement and legislative bodies to maintain currency with all the evolving issues presented by technological change creates opportunities for exploitation by nation states, criminal elements and organizations, terrorists, and private entities. Understanding the historical threats posed by various actors is essential to understanding the potential future of cyber conflict. This course examines the history of American cybersecurity, vulnerabilities to past attacks, and attempts to interdict and mitigate damage inflicted by future attacks on the national cyber system. Additionally, through examination of multiple international cyber conflicts a view of this component of the changing nature of modern warfare helps to illuminate the varied issues facing federal, state, and critical infrastructure operators across the country. On all these topics, this course emphasizes both theoretical and practical issues that will further the student's knowledge of Americas cyber vulnerability and the potential employment of cyber weapons in future conflicts.

NSAM 5650 Economic Statecraft in National Security Affairs (3 credits)

This course examines the economic strategies employed by states to press other states to follow established agendas. Achieving National Security Policy objectives frequently involves the integrative use of sanctions, embargoes, boycotts, dumping, freezing of assets, strategic materials policies, tarrifs, as well as opening of markets, foreign investments, partnerships, and other developmental activities. Economic Statecraft is seen as a peaceful strategy to force countries to negotiate and then build their economy for strategic alignment.

NSAM 6130 Practicum I: Supervised Field Experience (3 credits)

This course is a field research project that incorporates classroom knowledge and real world settings. Students will demonstrate their ability to apply theory to practice and analyze situations utilizing knowledge from previous course work.

NSAM 6690 Special Topics in National Security Affairs and International Relations (3 credits)

Special Topics in National Security Affairs and International Relations is reserved for advanced studies in the field. Specific focus and topics are to be approved by the chair of the Department of History and Political Science and advertised to students in advance of each offering. If the content changes, this course may be repeated with the prior permission of the department chair. Every Year Summer.

NSAM 6700 Directed Thesis in National Security Affairs and International Relations (3-6 credits)

The directed thesis serves as a capstone on the student's experience in the National Security Affairs and International Relations (M.S.) program. As such preparation for this course began on day one of the student's course of study of in the program. The theories, research methods and analytical skills, and substantive knowledge acquired by the student through the master's curriculum provide the foundation upon which this thesis project is built. Students must complete all other coursework in the program before undertaking the directed thesis. Working under the direction of a designated faculty member in the program students will be responsible for developing and planning an innovative project, crafting a viable thesis, engaging in research using appropriate primary and secondary resource material, and executing a polished work of analysis that contributes to knowledge in the field. In addition to submitting a written thesis, students are required to offer an oral defense of their project. Every Year Fall, Winter, Summer

OCGY 796 Directed Study: Marine Biology (3 credits)

Directed Study: Marine Biology/3 credits.

OCGY 799 Directed Study: PhD (3-6 credits)

Advanced tutorial instruction and/or directed independent study in specialized aspects of ocean science.

OCGY 8000 Dissertation: PhD (3-6 credits)

Research and progress toward completion of the Ph.D. dissertation in specialized aspects of ocean science.

OCGY 8001 Experimental Methods of Field Ecology (3 credits)

A tutorial-based examination of applications of experimental methods of field ecology with literature readings and extensive discussions.

OCGY 8040 Amoebal Taxonomy (3 credits)

Directed independent study of the marine amoebal taxonomy.

OCGY 8065 Geographic Information Systems & Environmental Remote Sensing (3-6 credits)

This Directed Individual Study will focus on the instruction of Remote Sensing and GIS. The individual will work in tandem with the course instructor to learn how to effectively instruct a remote sensing/GIS course. He/she will be integrally involved with all aspects of teaching the course including preparing selected lecture notes and homework assignments, assisting in creating, editing, and moderating exams,

presenting selected course lectures, and facilitating the learning of Remote Sensing and GIS software. A passing grade will be received upon satisfactory completion of all aforementioned assignments.

OCGY 8500 Microbial Ecology (3 credits)

This course is designed to introduce the concepts and methodologies needed for investigating the ecology of microorganisms, specifically the heterotrophic progists, i.e. the ciliates, flagellates and naked amoebae. Instruction will be delivered by hands-on investigation of mangrove water and sediment samples to be collected in the vicinity of the Oceanographic Center. In addition, the student will be expected to conduct a thorough review of all relevant recent literature on the ecology of protists.

OCGY 8811 DIS: Data Analysis Methods in Physical Oceanography (4 credits)

The course introduces the principles of data analysis in physical oceanography. Topics include the methods of data acquisition and recording, data processing and presentation, statistical methods and error handling, spatial analysis of data fields, and time series analysis methods.

OCGY 8812 DIS Population Ecology (3 credits)

Population Ecology reviews key concepts of theoretical ecology concerning population dynamics, as needed by marine biologists to understand the numerical behavior of animal and plant populations to provide a general-knowledge background. Since it is graduate-level, students are required to enhance frontal classroom teaching by the instructor through research papers and their presentation on specialized subjects directly related to the taught material. Course material reviews principals of the mathematical treatment of theoretical ecological programs, the programming background to solve these problems and applied problems of population dynamics. Numerous case-studies are used to illustrate concepts such as stability, bifurcations, basins of attraction etc. Students will have a broad understanding of ecological dynamics and will be literate in present issues in the Life Sciences.
Furthermore, since quantitative data analysis is a key skill required on the job-market, students will be introduced to the freeware statistical software R and will be exposed to the analysis of realistic geological datasets.

OCGY 8813 DIS Basic R Programming for Ecology (3 credits)

Basic R programming reviews key concepts and basic programming skills required for innovative use of theoretical ecology concerning population dynamics, as needed by marine biologists to understand the numerical behavior of animal and plant populations. Since it is graduate-level, students are required to enhance frontal classroom teaching by the instructor through research papers and their presentation on specialized subjects directly related to the taught material. Course material reviews principals of the computational treatment of theoretical ecological programs, as well as the mathematical background to solve these problems and

applied problems of population dynamics. Numerous case-studies are used to illustrate concepts such as stability, bifurcations, basins of attraction etc. Students will have a broad understanding of ecological dynamics and will be literate in present issues in the Life Sciences.
Furthermore, since quantitative data analysis is a key skill required on the job-market, students will be introduced to the freeware statistical software R and will be exposed to the analysis of realistic geological datasets.

OCGY 8814 DIS: Advanced Topics in Air-Sea Interactions (3 credits)

This course provides a comprehensive account of how the atmosphere and the ocean interact, what physical laws govern this interaction, and what are the important mechanisms. An advanced feature of this course is that it develops its subject from the fundamental physical and thermodynamic principles.

OCGY 8815 DIS: Calculus I (4 credits)

Functions, limits, and derivatives of algebraic functions. Introduction to derivatives of trigonometric functions, logarithmic functions; application of derivatives to physics problems; related rates and maximum/minimum problems, and definite and indefinite integrals with applications. This course has been exempted from the requirements of the Writing Across the Curriculum policy. Prerequisite: Challenge examination or MATH 1250. Frequency: Every Fall and Winter. (Description Last Updated: Summer I 2016 (201650)

OCGY 8816 DIS: Concepts in Fluid Mechanics (3 credits)

The course introduces the principles of continuity, momentum, and energy applied to fluid motion. Topics include buoyancy, stability, and hydrostatics; ideal-fluid flow; laminar flow; turbulent flow in boundary layer and pipes; dimensional analysis, and flow in pipes and channels; applications to physical oceanography.

OCGY 8817 DIS: Isotopes in Spatial Ecology and Biogeochemistry (2-6 credits)

The SPATIAL Short Course represents a bridge between theory and measurement and regional-to-continental scale research. It builds on the skills and knowledge base developed in Course 1 or equivalent stable isotope biogeochemistry coursework to introduce current research themes in large-scale ecology and environmental Earth science, theoretical and technical aspects of assembling and working with large, spatially distributed datasets, and analytical and computational tools available to support such work. The course emphasizes stable isotopes as a research tool, and their unique capacity to address many ecological problems, but also stresses the integration of isotopes with other data types and methods within a geospatial framework.

OCGY 8818 DIS: Corals (3 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D.

OCGY 8819 Directed Study: Elasmobranchs (6 credits)

Directed Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D. Frequency: Every Fall, Winter, Spring and Summer.

OCGY 8820 Directed Study: Invertebrates (6 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D. Frequency: Every Winter, Fall, Spring and Summer.

OCGY 8821 Directed Study: Deep Sea (6 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D. Frequency: Every Winter, Fall, Spring and Summer.

OCGY 8822 Directed Study: Oceanography (6 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D. Frequency: Every Winter, Fall, Spring and Summer.

OCGY 8823 Directed Study: Marine Fisheries (3-6 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D. Frequency: Every Winter, Fall, Spring and Summer.

OCGY 8824 Directed Study: Marine Ecology (6 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D. Frequency: Every Winter, Fall, Spring and Summer.

OCGY 8825 Directed Study: Marine Chemistry (6 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D. Frequency: Every Winter, Fall, Spring and Summer.

OCGY 8826 Directed Study: Advanced Statistics (1-6 credits)

Directed Independent Study courses are offered each term on an optional basis. Directed study in aspects of marine science. May be used for the completion of Ph.D.

OCGY 9000 Ph.D. Continuation (1 credit)

Post defense completion of dissertation.

WRIT 5000 Professional and Public Writing (3 credits)

This course offers an advanced study of professional writing strategies for public documents, including documentation and research, proposals and reports, argument and persuasion, layout and design, and writing and etiquette within electronic media.

WRIT 5010 Research Methods (3 credits)

This course offers writers opportunities to practice various qualitative, quantitative, textual, and historical research methods.

WRIT 5020 Poetry Writing Workshop (3 credits)

An advanced poetry writing workshop focusing on the art and craft of poetry within a collaborative, peer-review environment. Development of metaphorical structure and metrical language exploration of the universal in individual human experience will be particularly emphasized.

WRIT 5030 Fiction Writing Workshop (3 credits)

An advanced fiction writing workshop focusing on the art and craft of fiction within a collaborative, peer-review environment. Students will hone the techniques and tools of the fiction writer, such as a plot, narrative strategy, character, and motif.

WRIT 5040 Screenwriting Workshop (3 credits)

This workshop style class will examine the narrative structure and mechanics of the screenplay, as well as its creation and history. Particular emphasis will be on idea generation, plot development, screenplay format, writing treatments, scene construction, dialogue, and character development.

WRIT 5050 Autobiography and Memoir Workshop (3 credits)

This workshop style course focuses on the art and craft of autobiographical and memoir writing, by reading representative authors, understanding strategies used to represent the self in memory, and writing autobiographical/memoir pieces.

WRIT 5060 Writing Literary Nonfiction (3 credits)

This course focuses on reading and developing writing strategies for true-life stories in the nonfiction tradition exemplified by such writers as Agee, McPhee, Didion, Krakauer, and Sedaris, with particular emphasis on understanding and experimenting with the boundaries on non-fiction prose.

WRIT 5100 Teaching Writing (3 credits)

An introduction to teaching composition on the secondary and college undergraduate levels; methods of teaching composition based on modern theories of rhetoric, reading, language acquisition, and pedagogical strategies.

WRIT 5110 Writing Science (3 credits)

This writing workshop focuses on writing about science in an approachable, engaging way. Students learn a variety of writing techniques that can be used to help clearly convey complex information to a general academic audience.
Frequency: Every fall and every winter

WRIT 5120 Theories of Composition (3 credits)

This course provides the necessary foundation for students to be able to examine critical and rhetorical theories related to writing. Students will engage academic discourse to synthesize and analyze existing theoretical frameworks and apply them in their own writing. This course prepares students to write for academic contexts and to propose writing-related research.

WRIT 5140 Writing Center Praxis (3 credits)

This course provides students with advanced theoretical and experiential grounding in peer conferencing. Students study writing center theory and practice, and they apply such strategies in conferences with writers. The course prepares students for administrative duties of writing center practitioners.

WRIT 5160 Teaching Writing Online (3 credits)

This course focuses on the development of online writing instruction. Students learn to use a variety of online teaching technologies in order to produce effective writing curricula based on appropriate theories of composition.

WRIT 5200 Grammar and History of the English Language (3 credits)

A study of the structure and development of the English language from Old English to Modern English, including changes in word forms, meanings and sounds, syntax and grammar.

WRIT 5250 Social Media Writing and Strategy (3 credits)

This course offers students practical instruction in writing strategies for social media and other electronic media.

WRIT 5320 Advanced Writing with Technologies (3 credits)

This course focuses on developing advanced writing techniques for mobile and web-based technologies. Students in this course will examine in-depth the theories and approaches to writing within such digital environments and networks while at the same time investigate technologies as rhetorical objects. This course will prepare students to answer a variety of design problems related to technological contexts.

WRIT 5340 Studies in Multimodality and Digital Media (3 credits)

This course explores the rhetorical relationships between multiple modes and media. It focuses on the acquisition of skills for editing and layout of multimodal publications, such as marketing materials, newsletters, online magazines, and websites. Students get hands-on experience applying these skills while working on student-led publications.

WRIT 5350 Game Studies (3 credits)

This course focuses on several methods for studying video games as primary objects of research. Students will play a wide selection of games across genres and platforms to better understand the scope of the medium and its media ecologies. Students will also read foundational video game studies texts and produce game artifacts in a variety of formats as means to participate in this interdisciplinary field. This course also examines the intersection of game studies with rhetoric and composition, exploring how theories of writing and rhetoric facilitate critical awareness in the ways we engage with video games and their social, cultural, and economic effects. Frequency: Odd Year Winter.

WRIT 5400 Technical Writing (3 credits)

This course focuses on learning the techniques and technologies used to compose genres such as proposals, reports, instructions, and infographics for various audiences. Students will explore theories and practices related to interface, graphic, web, and information design, as well as procedural rhetoric, project management, and usability testing. This course will emphasize the technical communicator's role as a problem solver and critical maker working across physical and online spaces.

WRIT 5550 Feature Writing (3 credits)

This course offers students practical instruction in writing publishable features for print magazines and newspapers, as well as for electronic news and entertainment sources.

WRIT 5600 Writing Science (3 credits)

This writing workshop focuses on writing about science in an approachable, engaging way. Students learn a variety of writing techniques that can be used to help clearly convey complex information to a general academic audience. Frequency: Every fall and every winter

WRIT 5620 Rhetorical Traditions in Writing Studies (3 credits)

This course focuses on the primary texts that have been the core of rhetoric in the history of writing studies as well as alternative rhetoric that challenge this canon. Students apply ancient rhetorical concepts to contemporary practice in writing studies. The course provides a theoretical foundation for advanced study of rhetorical principles.

WRIT 5650 Rhetorical Criticism (3 credits)

This course focuses on applying various critical lenses to a variety of texts. Students reflect on the symbolism and power of language to promote civic participation and social change. The course provides students with a foundation for the analysis and interpretations of cultural artifacts.

WRIT 5700 Travel Writing (3 credits)

This course focuses on the particular genre of travel writing, focusing on the history and forms of the literary travel essay and writing about travel for the book and magazine market.

WRIT 5750 Transmedia Theory and Production (3 credits)

This course offers an advanced study of transmedia theory and production, including design, delivery, and dissemination of compositional structures, and composer and consumer participatory behaviors across multiple media sites.

WRIT 5800 Editing, Layout, and Design (3 credits)

This course focuses on the acquisition of skills for editing and layout of print and electronic publications, such as marketing materials, newsletters, magazines, and websites. These skills include copyediting, desktop publishing, project management, graphic design, typography, and layout using relevant software.

WRIT 5850 Teaching and Tutoring Second Language Writing (3 credits)

This course focuses on the theory and practice of teaching and tutoring culturally and linguistically diverse composition students. Students will explore theories of second language acquisition, including the roles of culture and identity, as well as L2 pedagogy, including course design, response, treatment of error, and assessment.

WRIT 5900 Special Topics (3 credits)

This course will focus on advanced study of topics in composition, rhetoric, and digital media. Students will study topics such as discourse analysis, stylistics, writing program administration, TESOL, writing assessment, writing in the community, literacy studies. May be repeated for credit as topics vary.

WRIT 5950 Media Internship (1-3 credits)

This course requires field or work experience in the student's area of study. Consult academic department for specific details and requirements. Repeatable up to six credits. Prerequisite: permission of Department Chair.

WRIT 5995 Program Completion in Progress (1 credit)

Students who need to complete any part of the completion exam or portfolio project will be enrolled in this course. Prerequisite: permission of academic program.

WRIT 6000 Master's Thesis (1-3 credits)

Research and writing for M.A. in CRDM thesis. Repeatable up to 13 credits. Prerequisite: permission of program director.