



University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE

Student Handbook

2020-2021

Welcome to the University of Maryland Center for Environmental Science (UMCES). This student handbook has been created by the Office of the Vice President for Education to serve as a general reference to UMCES students regarding policies, resources and services, funding, and other pertinent program information.

The University of Maryland Center for Environmental Science is a globally eminent research and education institution informing how we protect our environment and sustain our natural resources. Scientists conduct research at four laboratories: the Appalachian Laboratory in the mountains of western Maryland, the Chesapeake Biological Laboratory on the western shore of Chesapeake Bay, the Horn Point Laboratory on the Eastern Shore, and the Institute of Marine and Environmental Technology in Baltimore. Science communicators at the Integration and Application Network produce timely syntheses and assessments on key environmental issues, with a special emphasis on Chesapeake Bay and its watershed. The Maryland Sea Grant Program helps to fund research, education, and outreach throughout the state of Maryland.

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I - Institutional Overview

The History of UMCES

In 1925, Dr. Reginald Truitt founded the Chesapeake Biological Laboratory in Solomons, as an outgrowth of his research into managing the Bay's fisheries to better understand factors causing a significant decrease in oyster abundance in the Chesapeake Bay.

In 1962, the Appalachian Laboratory was founded in the mountains of western Maryland at the headwaters of the Chesapeake Bay watershed. Faculty study the effects of land-use change on the freshwater and terrestrial ecosystems of the region, how they function in the Chesapeake Bay watershed, and how human activities may influence their health and sustainability, among other topics.

The Horn Point Laboratory, along the Choptank River on the Eastern Shore, was founded in 1972, helping to advance society's understanding of the world's estuarine and ocean ecosystems. Its faculty are widely respected for their interdisciplinary programs in oceanography, water quality, restoration of sea grasses, marshes, and shellfish, and for expertise in ecosystem modeling.

In 1973, the Appalachian Laboratory, the Chesapeake Bay Laboratory, and the Horn Point Laboratory became the University of Maryland Center for Environmental Science. UMCES was charged with a unique statutory mandate to "conduct a comprehensive program to develop and apply predictive ecology for Maryland to the improvement and preservation of the physical environment."

In 1981, UMCES's first student in the multi-institutional Marine Estuarine Environmental Sciences program graduated, continuing the long line of master's and doctoral students to be trained side-by-side with world-renowned scientists to be the next generation of environmental leaders.

The Integration and Application Network (IAN) was formed in 2002 to assess progress on Chesapeake Bay restoration and update citizens on progress in the form of report cards, websites, and publications now extending around the world.

Maryland Sea Grant was founded in 1977 in College Park, MD, and joined the UMCES family in 1999. Funded by the National Oceanic and Atmospheric Administration and the State of Maryland, Maryland Sea Grant forms part of a network of 33 university-based Sea Grant programs around the country.

In 2009, UMCES launched its state-of-the-art research vessel *Rachel Carson* specifically designed to help understand and monitor the health of the Chesapeake Bay and its tidal rivers.

In 2011, UMCES scientists joined researchers from the University of Maryland Baltimore County and the University of Maryland Baltimore to create the Institute of Marine and Environmental Technology (IMET) in Baltimore. Scientists at IMET are engaged in cutting-edge research in microbiology, molecular genetic analysis and biotechnology, including alternative energy and sustainable aquaculture.

UMCES Mission Statement

Through its four laboratories and two programs across Maryland, the University of Maryland Center for Environmental Science (UMCES) is a research, education, and service institution of the University System of Maryland (USM) and a world leader in the science of coastal environments and their watersheds. UMCES faculty advance knowledge through scientific

discovery, integration, application, and teaching that results in a comprehensive understanding of our environment and natural resources, helping to guide the State and world toward a more sustainable future. Through its role as the responsible institution for administration of the Maryland Sea Grant College and numerous collaborative programs with other institutions, UMCES leads, coordinates, and catalyzes environmental research and graduate education within the University System. The Integration and Application Network inspires, manages, produces and communicates timely syntheses and assessments on key environmental issues with a special emphasis on Chesapeake Bay.

UMCES faculty members advise, teach, and serve as mentors to many graduate students enrolled in USM institutions, including in joint degree programs particularly through the System-wide graduate programs in Marine- Estuarine-Environmental Sciences (MEES), in which UMCES has a leading role. Through its participation in the NOAA Living Marine Cooperative Science Center, UMCES is committed to train a diverse environmental workforce. UMCES also delivers its services through environmental science education programs for K-12 students and teachers, pertinent and timely information to the general public and decision makers, technology transfer to industries, and, in collaboration with, the Maryland Sea Grant College.

UMCES contributes to meeting the legislative mandates of the University System of Maryland in numerous ways including: achieving national eminence as one of the world's premier research centers focused on ecosystem science; uniquely integrating research, public service, and education related to the sustainability of environment and natural resources of Maryland and the Chesapeake Bay region; leading the System's nationally ranked graduate program in marine and environmental science; recruiting and retaining a nationally and internationally prominent faculty; attaining research funding and private support far in excess of its state support; promoting economic development; conducting outreach to state and federal agencies; and collaborating with other higher education institutions in Maryland in advanced research and graduate education.

UMCES Unique Educational Experience

Students at the University of Maryland Center for Environmental Science work to understand our world's natural resources and discover solutions that improve people's lives and the planet as whole. They monitor the impact of pollution on the Chesapeake Bay, track the migration of rockfish, and explore the impact of ocean acidification on marine life, among a variety of other research interests. At UMCES, our graduate students pursue M.S. and Ph.D. degrees through an immersive educational experience in partnership with the University System of Maryland (<https://www.usmd.edu/>). Students begin their research the same day they begin their classes. At each of the labs, students explore their own discipline, but in the classroom find themselves working with their peers from across the different programs.

Campus/Laboratory Overview

Appalachian Laboratory

The Appalachian Lab (AL) is located in the mountains of western Maryland, the headwaters of the Chesapeake Bay watershed. The Laboratory is dedicated to the study of terrestrial and freshwater ecosystems. Research areas include: Aquatic Ecology, Behavioral and Evolutionary Ecology,

Landscape Ecology, Conservation and Restoration Ecology, Watershed Hydrology and Biogeochemistry

<https://www.umces.edu/al>

Chesapeake Biological Laboratory

The Chesapeake Biological Lab (CBL) is located on the Western Shore of the Chesapeake Bay. A mid-Bay location at the mouth of the Patuxent River places it within easy reach of the diverse aquatic and terrestrial habitats of one of the world's largest estuarine ecosystems. Research areas include: Ecosystem Studies and Restoration Science, Fisheries Science, and Environmental Chemistry and Toxicology

<https://www.umces.edu/cbl>

Horn Point Laboratory

Horn Point Laboratory (HPL) is located on the banks of the Choptank River on Maryland's Eastern Shore. The Laboratory's faculty is engaged in research on the biology, chemistry, physics, and ecology of organisms and ecosystems from wetlands and estuarine waters of the Chesapeake Bay to the continental shelf and open waters of the world's oceans. Research areas include: Aquaculture Restoration Ecology Program, Biological Oceanography, Nutrient and Biogeochemical Cycles, and Physical Oceanography

<https://www.umces.edu/hpl>

Institute of Marine and Environmental Technology

Located on Baltimore's Inner Harbor, the Institute of Marine and Environmental Technology (IMET) capitalizes on the strengths of UMCES, the University of Maryland, Baltimore County and the University of Maryland, Baltimore to conduct marine and environmental research and create technologies designed to foster the protection and restoration of coastal marine systems and their watersheds. Research areas include: Marine Biodiversity, Ocean Health and Human Health Marine Bioenergy, and Consortia in Marine Ecosystems

<https://www.umces.edu/imet>

Integration & Application Network (IAN)

IAN is an initiative of the University of Maryland Center for Environmental Science. IAN's mission is to inspire, manage and produce timely syntheses and assessments on key environmental issues, with a special emphasis on Chesapeake Bay and its watershed. IAN is a network which includes different agencies and institutions in different locations.

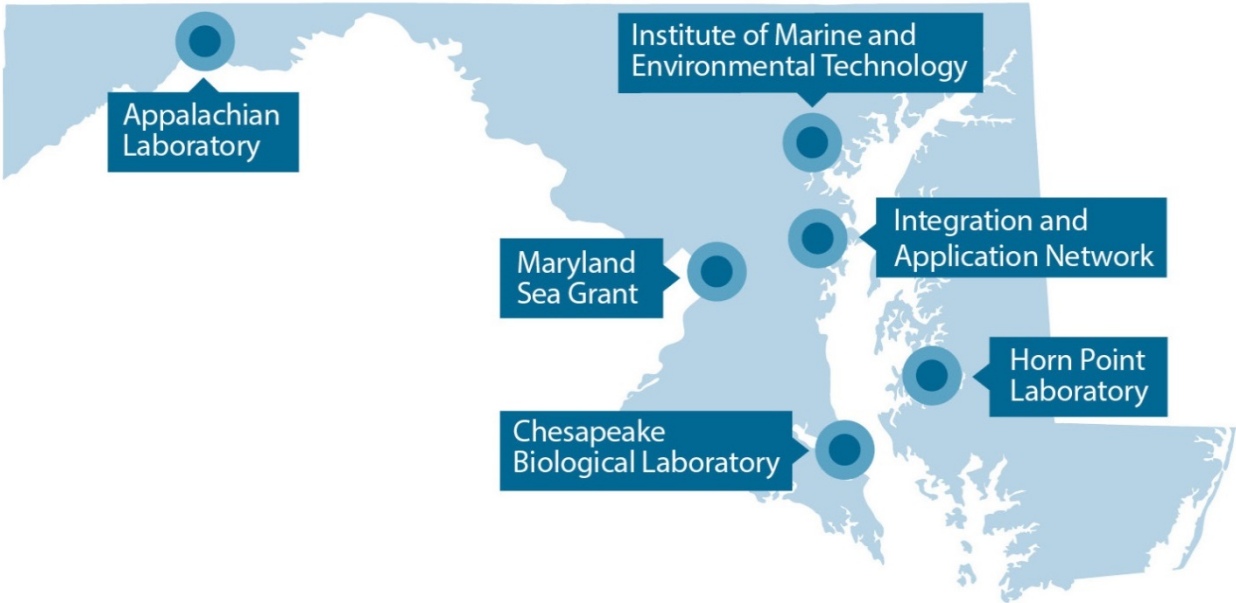
<https://www.umces.edu/ian>

Maryland Sea Grant

In addition to the Laboratories, UMCES administers the Maryland Sea Grant Program in College Park, Maryland. The Maryland Sea Grant College is a university-based partnership with the National Oceanic and Atmospheric Administration. Maryland Sea Grant helps to fund research, education, and outreach throughout the state of Maryland.

<https://www.mdsg.umd.edu/> and <https://www.umces.edu/maryland-sea-grant>

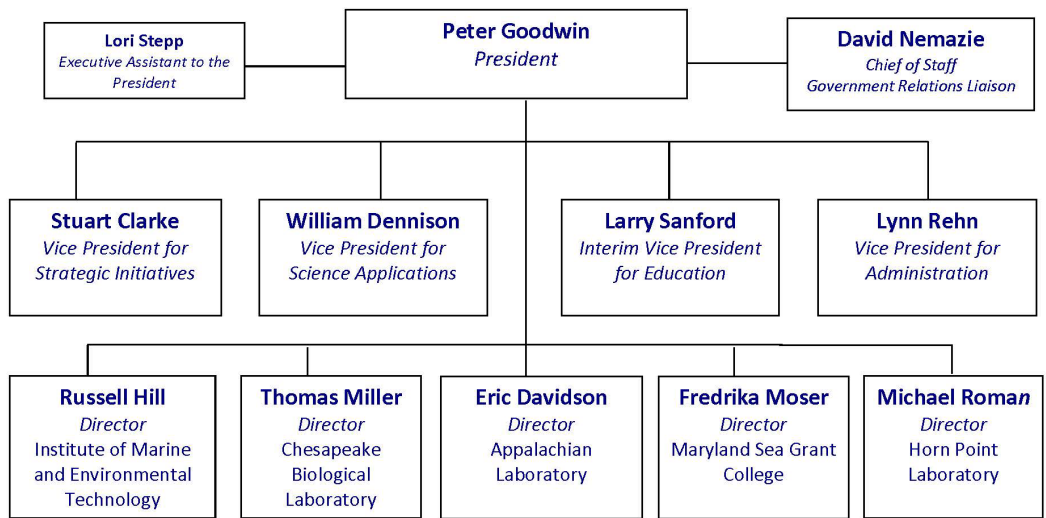
Campus Map



A campus map of the UMCES campuses described above. UMCES is a geographically distributed institution of the University System of Maryland, with Laboratory Units and Offices located across the state.

UMCES Leadership Organizational Structure

UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE ORGANIZATIONAL CHART



Accreditation

UMCES is accredited by the Middle States Commission on Higher Education. UMCES has been committed to graduate education for more than 40 years. Faculty members teach and mentor M.S. and Ph.D. students. Historically, students have received degrees and diplomas from degree-granting institutions in the University System of Maryland (USM), primarily from the University of Maryland College Park (UMD). With authorization of the Board of Regents and Maryland General Assembly, UMCES became a degree-granting institution within the USM in 2012-13 and was accredited in 2016. The first M.S. and Ph.D. degrees with UMCES recognition were jointly awarded with UMD in May 2014.

II - Key Offices and Contacts

Center Administration Mailing Address

University of Maryland Center for Environmental Science
P.O. Box 775
Cambridge, MD 21613
Website: <https://www.umces.edu>
Phone Number: 410-228-9250

Graduate Programs

Most students at UMCES are enrolled in the University of Maryland's system-wide program in environmental science: the Marine, Estuarine, and Environmental Sciences (MEES) program. Students can also enroll in the Molecular Microbiology & Immunology program in the Graduate Program in Life Sciences (GPILS) at the University of Maryland, Baltimore and the Masters Programs in Ecology/Conservation and Wildlife/Fisheries at Frostburg State University.

MEES Program

Website: <http://mees.umd.edu/>
Phone Number: 301- 405-6938
Email address: mees@umd.edu

MEES Program Staff:

Dr. Timothy Canty, Director, tcanty@umd.edu
Tamara Hendershot, Program Manager, tbarksda@umd.edu
Hang Nguyen, Program Coordinator, hnguye14@umd.edu

UMB – Graduate Program in Life Sciences

Website: <http://lifesciences.umaryland.edu/>

Molecular Microbiology & Immunology Program Staff:

Heather Ezelle, Academic Services Specialist, 410-706-7126
Sharron Graves, Program Administrator, s-graves@som.umaryland.edu

FSU - Biological Sciences Program

Wildlife/Fisheries Biology

Website: <https://www.frostburg.edu/academics/majorminors/graduate/ms-wildlife-fisheries-biology/index.php>

Applied Ecology and Conservation Biology

Website: <https://www.frostburg.edu/academics/majorminors/graduate/ms-applied-ecology-and-conservation-biology/index.php>

Biological Sciences Program Staff:

Dr. Thomas Serfass, Graduate Programs Coordinator, 301-68704171, tserfass@frostburg.edu

UMCES Education Office

The UMCES Education Office is comprised of the Vice President for Education, the Director of Graduate Certificate Programs and Extended Learning, and the Assistant to the Vice President for Education. This office is a key point of contact for UMCES students for policies, procedures, and general guidance. More about this office can be found in Section IV.

Contact:

Vice President for Education: Dr. Larry Sanford, lsanford@umces.edu

Director of Graduate Certificate Programs and Extended Learning: Dr. Denise Yost, dyost@umces.edu

Assistant to the Vice President for Education: Amy Griffin, agriffin@umces.edu

Education Office: education@umces.edu

Laboratory Contacts

Center Administration

HR Director: Lisa Ross, lross@umces.edu

HR Administrator: April Lewis, alewis@umces.edu

UMCES HR Website: <https://www.umces.edu/human-resources>

Appalachian Laboratory

Lab Director: Dr. Eric Davidson

HR: Heather Johnson

301-689-7111

hjohnson@umces.edu

Fax: 301-689-7200

Mailing Address: 301 Braddock Rd. / Frostburg, MD 21532

Chesapeake Biological Laboratory

Lab Director: Dr. Thomas Miller

HR: Stacy Hutchinson

410-326-7364

shutchinson@umces.edu

Fax: 410-326-7257

Mailing Address: P.O. Box 38 / Solomons, MD 20688

Horn Point Laboratory

Lab Director: Dr. Michael Roman

HR: Addie Cropper

410-221-8241

acropper@umces.edu

Fax: 410-221-8490

Mailing Address: 2020 Horns Point Rd. / Cambridge, MD 21613

Institute of Marine and Environmental Technology

Lab Director: Dr. Russell Hill

HR: Monica Chacon

410-234-8898

mchacon@umces.edu

Fax: 410-234-8896

Mailing Address: 701 E. Pratt St. / Baltimore, MD 21202

Integration and Application Network

Vice President for Science Application: Dr. Bill Dennison

Mailing Address: P.O. Box 775 / Cambridge, MD 21613

Maryland Sea Grant

Director: Dr. Fredrika Moser

HR: Jeannette Connors

301-405-6376

connors@mdsg.umd.edu

Fax: 301-314-5780

Mailing Address: 4321 Hartwick Rd. / Suite 300 / College Park, MD 20740

Research Fleet

The University of Maryland Center for Environmental Science's Research Fleet is the backbone of the Center's coastal science research programs, providing scientists with access to the Chesapeake Bay and its tributaries. Home-ported at the Chesapeake Biological Laboratory in Solomons, the research fleet consists of the 81-ft RV Rachel Carson and 16 small vessels stationed at the Chesapeake Biological Laboratory and the Horn Point Laboratory.

Director of Marine Operations: Capt. Michael H. Hulme

Phone: 410-326-7358, 410-326-7350

Email: hulme@umces.edu

Communications and Social Media

Director of Communications: Amy Pelsinsky, apelsinsky@umces.edu

Facebook: <https://www.facebook.com/UMCES/?fref=ts>

Instagram: <http://instagram.com/umces>

LinkedIn: <https://www.linkedin.com/company/university-of-maryland-center-for-environmental-science>

Twitter: <https://twitter.com/UMCES?lang=en>

III -UMCES Policies

Regardless of which program a student is enrolled in, all UMCES students must adhere to a set of policies regarding research, education, and human resources. To access UMCES policies, see this website: <https://www.umces.edu/policies-and-procedures>

UMCES Policy on Graduate Assistantships (III.7.11)

This UMCES policy, effective September 1, 2011, implements [BOR III-7.11 Policy](#) in support of graduate students who are appointed to assistantships. The purposes of graduate assistantships (GA) are:

1. To advance the student's graduate education through practicum-based experiences, including the development and application of teaching, research and other skills, while also advancing the mission of the institution.
2. To provide financial support, including stipends and tuition assistance, to aid degree-seeking students enrolled in USM masters or doctoral programs and appointed as graduate assistants in the pursuit of their graduate degrees.

This policy is intended to establish baseline standards for the administration of graduate assistantships, with a commitment to fair and continuous improvement in the treatment of graduate assistants in terms of compensation, level of effort and, opportunities for professional development.

This policy also contains information on Due Process Protections, including an informal resolution of concerns and a formal grievance policy for Graduate Assistantships.

Please see this website for the full policy: http://www.umces.edu/sites/default/files/III711UMCES_0.pdf

Ethics and Integrity

UMCES Policy and Procedures on Misconduct in Scholarly Work (III-1.10)

It is the policy of UMCES, as a component institution of the University System of Maryland, to maintain high ethical standards in scholarly work, to prevent misconduct where possible, and promptly and fairly to evaluate and resolve instances of alleged or apparent misconduct.

As defined in guidelines set forth in USM policy, misconduct in scholarly work shall include, but not be limited to, the following:

1. Falsification of data

2. Improper experimental manipulation
3. Plagiarism
4. Improper assignment of credit
5. Abuse of confidentiality
6. Deliberate violation of regulations
7. Misappropriation of funds or resources.

Please see the full policy for more information:

http://www.umces.edu/sites/default/files/III110UMCES_0.pdf

IV - Graduate Education Programs

Students at UMCES work to understand our world's natural resources and discover solutions that improve people's lives and the planet as a whole. UMCES students are enrolled in three, system-wide graduate programs, pursuing M.S. and Ph.D. degrees (described in section II above). While each program is unique, all UMCES students receive a rich and immersive education and are prepared to take on the myriad of environmental challenges we face today. Additional information and links about the student experience and the graduate education programs can be found here:

<https://www.umces.edu/graduate-program-myumces>

Additional resources, contact information and answers to FAQs can be found in the [Academic Cheat Sheet](#) and the [Financial Cheat Sheet](#).

Departmental Roles

Advisor

Your faculty advisor will be your key contact throughout your graduate studies at UMCES. Your advisor will serve as teacher and mentor, assisting you in developing your thesis research and in navigating through the many requirements of a graduate program. Your advisor will, in many cases, also be a source of funds that provide assistantship support and funding for your research. You will also work with your advisor annually to fill out the [Mutual Expectations document](#).

Advisory Committee

All UMCES students are required to form an advisory committee, consisting of qualified faculty members, early in their course of study. Your committee members will advise you on academics and research, periodically reviewing and evaluating your progress. Advisory committee members must hold a Graduate Faculty appointment in UMCES. Some exceptions are described in policies for each of the graduate programs below.

Office of the Vice President for Education

The UMCES Vice President for Education is the primary administrator representing UMCES in educational matters within the institution and more broadly within the University System of Maryland. The Office of the Vice President for Education supports UMCES education efforts in a

variety of ways. This includes being a source of information and assistance to students and faculty on education-related matters, and a liaison between faculty and students with the MEES Graduate Program/UMD Graduate School Offices. Students should [contact](#) the Office on any matters related to academic policy and procedures, or to answer questions. Many administrative procedures and forms for graduate students are processed by the Office of the VP for Education. The Office is always ready to assist and guide students and faculty advisors.

Website: <https://www.umces.edu/graduate-program-myumces>

Vice President for Education: Dr. Lawrence Sanford, 410-221-8429, lsanford@umces.edu

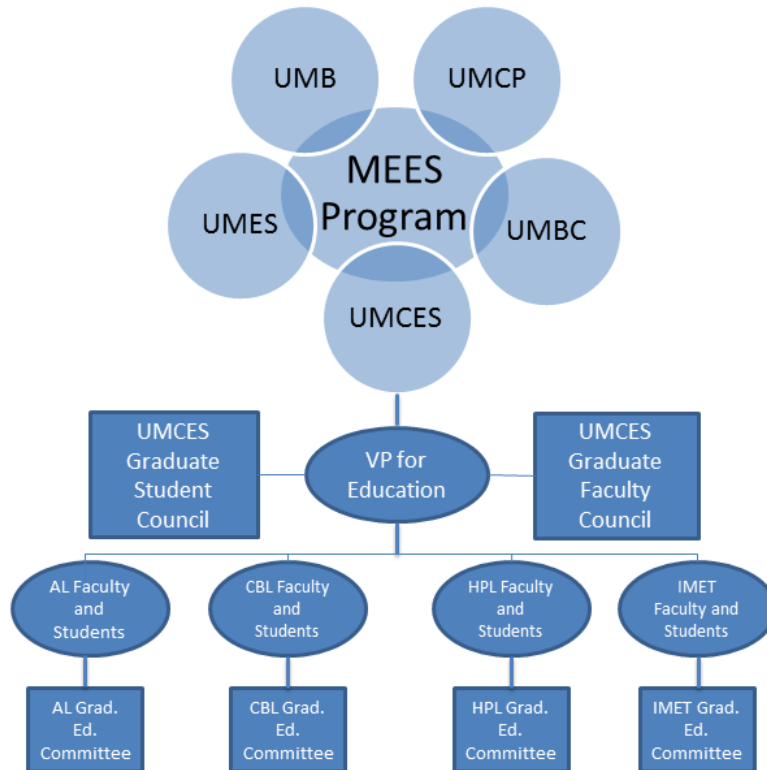
Assistant to the Vice President for Education: Amy Griffin, 410-326-7211, aqriffin@umces.edu

Marine-Estuarine-Environmental Sciences Program (MEES)

The following information is derived and summarized from the [MEES Program website](#). All communications with the MEES Program should be copied to the UMCES VPE Office.

The MEES Program is a multi-institutional graduate program in the University System of Maryland. Students in the program may study for M.S. and Ph.D. degrees. The diverse interests of students in the program generally focus broadly on environmental sciences and on interactions between biological, physical, chemical, and social systems. In UMCES, MEES students conduct thesis research on ecosystems ranging from the mountains to the sea. Research topics range from study of molecular mechanisms to economic assessments of environmental impacts. To ensure that students in the program appreciate the scope of environmental sciences, each student is required to take courses in professional development in addition to focused coursework in foundation areas related to their particular interests. Courses taken by MEES students are taught at five institutions within the USM. All MEES courses are available to graduate students registered at any of the five MEES institutions. UMCES has a major investment in MEES and most UMCES graduate students are enrolled in the MEES Program. Most MEES courses are taught via synchronous online instruction, precluding the need for students to travel to off-campus sites. In most cases, UMCES students in the MEES Program conduct their research at the Laboratory where their faculty advisor resides.

MEES-UMCES Relationships



Foundation Areas

While the MEES program is interdisciplinary, with faculty members teaching and advising from numerous units and backgrounds within the University System of Maryland, students choose a foundation area in which to specialize. The four foundation areas are as follows:

- Environment and Society
- Earth and Ocean Systems
- Ecological Systems
- Environmental Molecular Science and Technology

Application and Admissions

Applicants will be considered for admission and advising on all campuses by faculty associated with an appropriate Foundation Area (<https://www.mees.umd.edu/program-committee>), based on the applicant's requests. Prospective UMCES students should apply through the [Graduate School at College Park](#). This website serves as the homepage to important information and [forms](#) for current students.

Applicants to the MEES Program will be considered at both the M.S. and Ph.D. levels. In the event an applicant to the Ph.D. program has only a B.A. or B.S. degree, admission may initially be made to the

M.S. program with the possibility of a change to the Ph.D. program upon successful completion of a probationary period and the recommendation of the student's Research Advisory Committee. Though it is not necessary to have an advisor before applying, **no student will be admitted to the MEES Program until an advisor has been identified.** The responsibility for [finding an advisor](#) rests with the applicant.

A Program Committee representing the Foundation Areas will evaluate applications of prospective students. Application materials must be submitted by January 15 for fall-semester admittance and October 1 for spring-semester admittance.

1. The applicant's research interests must align with one of the MEES Foundation Areas.
2. The applicant's academic preparation must be sufficient and consistent with Foundation area expectations
3. The undergraduate GPA must be at least 3.0. In unusual circumstances, students with a GPA below 3.0 may be provisionally accepted based on appropriate research or work experiences.
4. Applicants must submit the following documents as part of their MEES application:
 - a. Official transcripts of all college-level work.
 - b. A brief essay clearly defining areas of research interest and research objectives (preferable including the Foundation area of interest). The essay will assist with identification of an academic advisor should the applicant be admissible.
 - c. A current CV or resume.
 - d. Three letters of recommendation from persons familiar with the academic work of the applicant.
 - e. Most international applicants will be required to submit TOEFL or IELTS exam scores. Should you have any questions as to whether you are exempt, please contact the UMD graduate school.

Submission of Graduate Record Examination (GRE) Scores is optional. GRE scores will not be considered as criteria for admission, but may serve as guidance for potential advisors.

Curriculum, Committees, and Courses

Initial Advisory Committee Meeting (M.S. and Ph.D.)

A five-member Ph.D. Research Advisory Committee or a three-member M.S. Research Advisory Committee should be appointed and meet during the first academic year to discuss a student's academic program and early research planning. This committee will follow the student throughout their tenure in the program. A [report](#) of this meeting must be filed with the UMCES Office of the Vice President for Education (VPE) and with the MEES Office by the end of the second semester after matriculation.

Annual Committee Reports (M.S. and Ph.D.)

MEES students are required to meet with their advisory committee at least once per year. Students must provide the VPE and MEES Program Offices with an annual report that summarizes the

meeting within 2 weeks of the meeting. The form can be found [here](#). The report must summarize research/coursework to date, include a transcript of academic coursework, and must be signed by all committee members.

These two forms and all other required [forms](#) are available on the MEES Program website.

Course Work (M.S. and Ph.D.)

Students in the M.S. program will work with an advisory committee to tailor and design a program of study appropriate to their interests. The program of study requires a research project and course work that must include a minimum of 30 credits with 24 credits of course work and 6 credits of graduate research (MEES 799). Of the 24 course credits, 12 must be at the 600 level or higher. MEES 799 can be taken throughout the student's tenure in the program, but six credits must be completed by the semester the student defends. The last credit can be taken in the semester that the student defends, as students must be registered for at least one credit in order to defend. Each approved plan of study in the framework above must include the following four elements:

1. Core Foundation course specific to student's chosen Foundation.
2. Three Professional Development courses that **must include** MEES 609A- Applied Environmental Science (any additional professional development courses beyond the required three can satisfy elective courses).
3. One Issue Study Group.
4. Elective courses approved by student's advisory committee.

Exceptions and waivers for equivalent courses taken before entry may be used to meet MEES course requirements upon approval by the advisory committee, the UMCES VPE Office, and the MEES Office. Although graduate courses taken elsewhere may serve to fulfill requirements, only six credits from such courses may be transferred for the MEES M.S. Program. Courses used to fulfill requirements for a previously awarded degree may not be used for transfer credits.

Students in the Ph.D. program will work with an advisory committee to tailor and design a program of study appropriate to their interests. The program of study requires an independent research project and course work that must include a minimum of 36 credits with 24 credits of course work and 12 credits of doctoral dissertation research (MEES898/899). In most cases this requirement is satisfied by two semesters (fall/spring) of post-candidacy registration, in which the candidate is automatically registered for six credits of Doctoral Dissertation Research (899) per semester. In exceptional cases, in which a student is able to defend the dissertation before completing 12 credits of 899, this requirement can be satisfied by completing a combined total of 12 credits of 898 (pre-candidacy dissertation research) and 899. Students must petition the Graduate School if they wish to use MEES898 credits to satisfy their required twelve 899 credits.

Of the 24 course credits, 12 must be at the 600 level or higher. A student is only able to take MEES899 once they have advanced to candidacy. If the 24 course credits are complete and the student needs credits to maintain full-time status before candidacy they can enroll in MEES898 (Pre-candidacy Doctoral Research). Each approved plan of study must fit in the framework above and include those four elements.

Note: Credits used to obtain a M.S. degree at UMD or elsewhere cannot be transferred to the Ph.D. program. However, if a student has completed a M.S. degree, up to 16 credits of appropriate courses can be waived with approval of the student’s advisory committee. Students are not able to substitute or waive a foundation course, the Applied Environmental Science course, or the Issue Study Group.

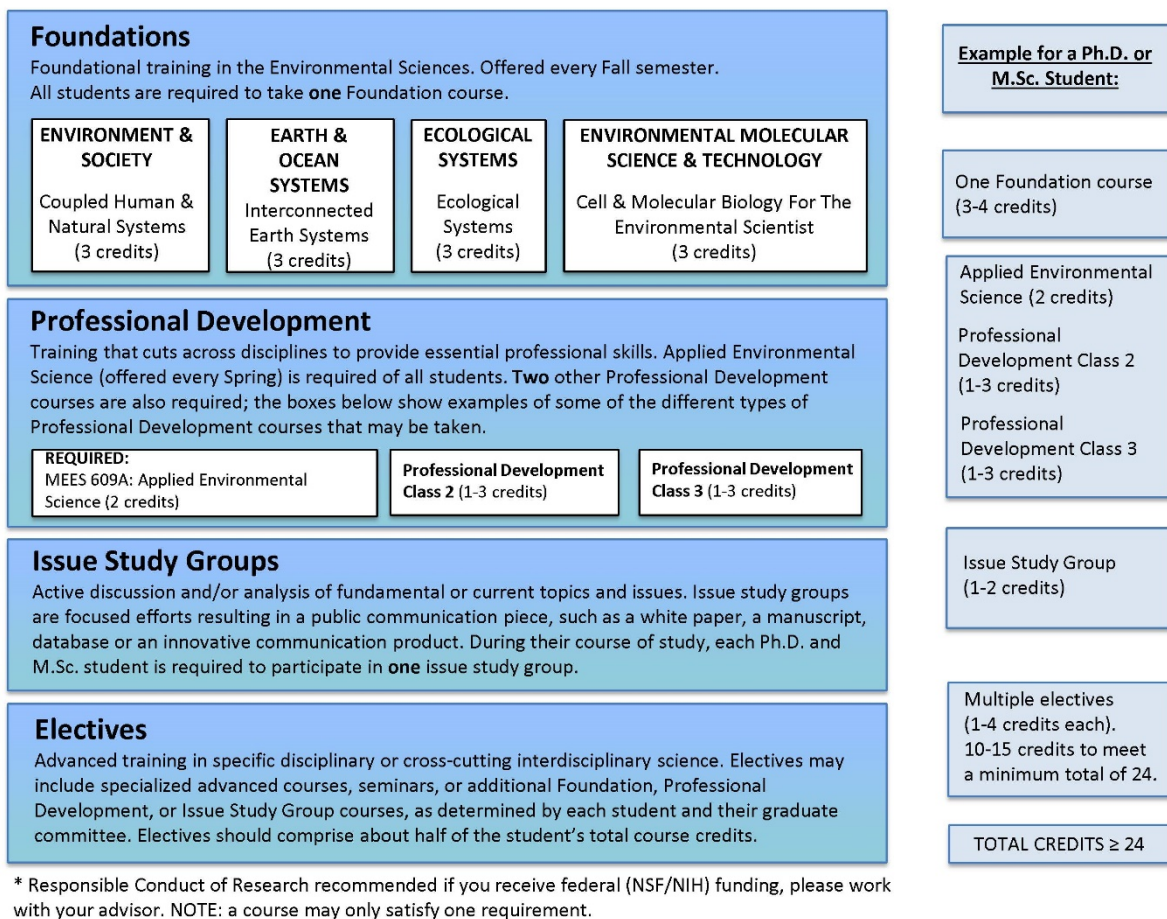


Figure 1 Diagram showing required courses for the MEES program and example course work plan for PhD and MSc students in the MEES program as described above in the course work section.

For a detailed listing of courses, please see the [MEES course catalog](#) and associated [course syllabi](#). For the most up-to-date syllabi or questions about course content, please email education@umces.edu

Course Types

Foundation Courses

The Foundation courses are permanent 3 credit course listings offered every Fall semester. The Foundation courses are designed to provide broad foundational training in the Environmental Sciences and provide context for subsequent courses and research. They are also meant to

provide basic pre-requisite knowledge for more advanced courses. There are four Foundation courses, one for each Foundational area, as follows:

1. Environment and Society: MEES 620 Environment and Society
2. Earth and Ocean Systems: MEES 640 Interconnected Earth Systems: Land, Ocean, and Estuary
3. Ecological systems: MEES 660 Ecological Systems
4. Environmental Molecular Science and Technology: MEES 680 Cell and Molecular Biology for the Environmental Scientist - from Genes to Ecosystems

Each MEES student is required to take at least one Foundation course for credit. A second Foundation course may be taken as an elective. Foundation courses are usually team-taught, often with faculty from different UMCES laboratories or MEES partner institutions.

Professional Development Courses (PDs)

PD courses are designed to provide training that cuts across disciplines to provide graduate students with essential professional skills. These are not specific to any foundation area. They may include courses in responsible conduct of research, ethics, scientific writing, communication, data visualization, statistics, quantitative analysis, career planning, etc. These courses are often team-taught with faculty from multiple UMCES laboratories or MEES partner institutions.

All incoming MEES students are required to take the PD course “MEES609A Applied Environmental Science”, preferably in their **first Spring semester** immediately after taking their primary Foundation course in the Fall. The goal of this course is to bring the cohort of new MEES students together to work on applied interdisciplinary problems with teams of students representing all foundational areas and laboratories.

All MEES students also are required to take two additional PD courses. Advisors/committees may recommend that their students take a responsible conduct of research class as a PD course, which will fulfill some funding agencies’ requirement to do so (e.g. National Science Foundation, National Institutes of Health). Students should work with their advisors/committees to determine the best PD courses for their individual programs. PD courses beyond the 3 required may be considered electives.

Issue Study Groups (ISGs)

Issue Study Groups are courses that focus on current issues in environmental science and/or policy. ISGs may involve reading, discussion, and synthesis of literature, or they may require accessing, analyzing and synthesizing primary material or data. Issue Study Groups collaboratively research, discuss, and synthesize information on the chosen topic, culminating in public communication pieces such as white papers, manuscripts, presentations, workshops, or other innovative communication products. All MEES students are required to complete one Issue Study Group course during their program of study. ISGs are usually 2-credit courses taught in a single semester, but they may also be taught over 2 semesters for 1 credit each semester. ISGs are not intended for students in their first semester; ideally ISGs should be taken after completing the MEES609A Applied Environmental Science course.

Electives

Half or more of a student's coursework in the MEES program should comprise elective courses. Electives are courses intended to follow on from Foundation courses (though they are not officially assigned to a specific Foundation) and are intended to provide in-depth training in specific intellectual fields of study. Elective courses are offered to provide concepts and tools that are required for a student to more fully understand and complete their research. If a course is not a Foundation, PD, or ISG then it is an elective by default. Foundations, PD courses, and ISGs beyond the minimum required may be considered as electives. Graduate courses from outside of MEES may also be taken as electives with the approval of a student's advisory committee.

Students should work closely with their advisors and committee members to discuss the appropriate electives to take, with consideration as to when specific courses are scheduled to be offered, particularly for courses offered only once every two years. Elective courses may have prerequisites if appropriate, including Foundation or PD courses.

Inter-Institutional Enrollment

UMCES students in the MEES Program are eligible to take courses at any other institution of the University System of Maryland subject to the approval of the Graduate Directors and the Graduate Deans of the home and host institutions. Students should work with their advisor to identify courses that would be most helpful for their course of study. Credits earned at the remote host institution are considered resident credit at the home institution, and, following normal procedures for graduate program approval, these credits may be used to meet University of Maryland graduation requirements. Transcripts of courses taken at another institution will be maintained at the home institution and tuition and fees will be paid to the home institution. Forms for registration as an inter-institutional student may be obtained from the Office of the Registrar of the home institution. For more information, refer to [Inter-Institutional Enrollment](#).

Research Proposal (M.S.)

A written statement detailing as specifically as possible the research to be conducted needs to be submitted to the MEES Program Office upon approval from the student's Advisory Committee. This is usually done no more than 1 year after matriculation. If vertebrate animals are to be used in the research, an animal use protocol must be filed before the research is done.

Thesis Defense (M.S)

An Oral Defense of the Thesis, administered according to [Graduate School M.S. regulations and policies](#) will take place at the completion of the research project. This defense will be conducted by the Research Advisory Committee and will be administered once all other degree requirements have been fulfilled. The thesis will be announced using the [Thesis Defense Announcement Form](#). The Thesis Defense will generally last no longer than two hours, but the time will be long enough to ensure an adequate examination. The Research Advisory Committee also approves the thesis, and it is the candidate's obligation to see that each member of the committee has at least two weeks in which to examine a copy of the thesis prior to the time of the defense.

The Research Advisory Committee may conclude that the candidate has passed or failed. A student may be conditionally passed with the provision that minor changes in the thesis be made and

approved by the Major Advisor. A student who fails may at the discretion of the committee and with approval of the MEES Director and the appropriate Graduate School be permitted to stand a second defense after acting on suggestions for improvement of the thesis (collection of more data, use of different statistical analysis, rewriting of the discussion, etc.), at such time as the advisor considers appropriate. Once the thesis has been successfully defended, one copy must be supplied to the MEES Office in addition to the copies required by the Graduate School. University of Maryland, College Park will place a copy of the thesis on [DRUM](#), the digital repository for the University (which does allow copyright embargoes). An additional digital copy must be supplied to the UMCES VPE Office. Materials for thesis formatting and guidelines can be found here <https://gradschool.umd.edu/students/academic-progress/thesis-and-dissertation-filing>. The thesis must be prepared based on the guidelines found in the [Electronic Thesis and Dissertation Style Guide](#) All thesis information related to milestones and requirements discussed here can also be found here: mees.umd.edu/current-ms-req-1

Comprehensive Exams (Ph.D.)

Currently, the policy for comprehensive exams follows the guidelines below from the MEES website. However, UMCES, in conjunction with the MEES Program, has been working on revised guidelines that will be available soon. If you have questions, please do not hesitate to contact the VPE Office.

The Research Advisory Committee is responsible for administering the comprehensive examination. Since this examination must be successfully completed before the dissertation proposal can be defended, it is in the student's best interests to take the Comprehensive Examination as early as possible in the Program. The exam must be taken by the end of the student's sixth semester. This examination is intended to determine whether the student demonstrates sufficient evidence of scholastic and intellectual ability in major and related academic areas. The examination will not be a defense of the research proposal.

Areas of the examination will be chosen by the student, with approval by their Committee, from a general list formulated by the Foundation Committee. One area of the examination must be chosen for interdisciplinary breadth (e.g. relating to the interdisciplinary course from the core curriculum). The examination will include a combination of written and oral sections. The Research Advisory Committee will determine whether the student passes (a minimum of four affirmative votes is required) or fails. If failed, the examination may at the recommendation of the Research Advisory Committee be taken again. In this case, the examination should be repeated within 1 year, but no sooner than 6 months after the initial examination. If the examination is failed a second time, matriculation will be canceled. The MEES Director's Office must be notified at least 2 weeks in advance of the pending examination. A report of the examination will be filed with the Director's Office following the examination.

Dissertation Proposal (Ph.D.)

The Proposal Defense is an oral examination on the research proposal administered by the Research Advisory Committee. The Proposal Defense must take place after passing the Comprehensive Exams. At least 2 weeks prior to the examination, the student must supply the committee members with a formal research proposal in which the following is detailed: background information, research progress to date (if any), specific objectives, and experimental design of the proposed research. However, the format of the proposal may vary slightly depending on topic.

The committee is expected to examine the student on all aspects of the proposed research to determine whether the research plan is sound and whether the student has the proper motivation, intellectual capacity and curiosity, and has or can develop the technical skills necessary to successfully pursue the research. The student passes if there are at least four affirmative votes. If failed, the student must re-defend the proposal within 1 year. A second failure will result in cancellation of matriculation.

The research proposal should be defended within 1 year of passing the Comprehensive Examination and at least 1 year before projected completion of the degree requirements. It is expected that all members of the Research Advisory Committee will attend the proposal defense. If a single member of the committee is unable to attend in person, they may attend the defense remotely pending prior approval from the Director of the MEES Program. The Director's Office must be notified of the pending examination several weeks prior to its administration and a report of the examination must be filed with the Director's Office following the examination. At the successful completion of this defense the student officially applies for Advancement to Candidacy for the Ph.D. degree and should submit the necessary forms to the Director of the MEES Program for transmission to the Graduate School. Students must be admitted to candidacy at least six months prior to the Defense of the Dissertation (final defense). Forms for advancement to candidacy can be found here <https://gradschool.umd.edu/forms> . Please be aware that paperwork must be received by the Graduate School prior to the 25th of the month in order for the advancement to become effective the first day of the following month. Students should also submit the Ph.D. Approved Program Form to the MEES Office when submitting their application for candidacy.

PLEASE NOTE: students must notify their respective business offices once they advance to candidacy to switch over to the GRA III stipend (see GA policies and Stipend and Finance Section above).

Note: Students using vertebrates in field or laboratory research must submit a protocol to the Animal Care and Use Committee of the appropriate campus prior to the initiation of research.

Dissertation Defense (Ph.D)

After the student has submitted their application for candidacy, they must submit a Nomination of Dissertation Committee Form to the UMD graduate school. The Committee must include a minimum of 5 members of the Graduate Faculty, at least three of whom must be Full Members. The Chair of the Committee is usually the student's primary advisor. The Dissertation Committee is usually formed by the members of the student's Research Advisory Committee. Each committee will have appointed to it a representative of the Dean of the Graduate School. The Dean's Representative may be one of the five voting members, or may also be a non-voting member of the committee (this is to be decided upon by the student, the primary advisor and the Dean's Representative prior to submission of the Nomination form). If the Dean's Representative is a non-voting member, the Dissertation Defense Committee must be comprised of at least six members. The Nomination of the Dissertation Defense Committee must be approved by the appropriate Graduate School and should be submitted at least six weeks before the date of the expected dissertation examination. **The MEES Office requires at least 12 weeks prior to the date of the expected examination to fully process Graduate Faculty Status and ensure timely submission of appropriate forms to the Graduate School.** The Examination cannot be held until the Graduate School approves the Dissertation Examining Committee.

For more specific policies regarding the eligibility and membership of nominated members of the Dissertation Defense Committee, please visit the [Graduate School Catalog](#).

The final defense of the dissertation is conducted by the Dissertation Committee (see above). The Defense must be held in University facilities that are readily accessible to all interested attendees. The time and place of the examination are established by the chair of the committee. An announcement of the final examination will be made through the MEES Office to all members of the MEES faculty and students at least two weeks prior to the examination. Please use the [Dissertation Defense Announcement Form](#) for the announcement. The student is responsible for distributing a complete, final copy of the dissertation to each member of the committee **at least two weeks** before the examination date for the committee to prepare for the Defense.

The Dissertation Examination consists of two parts. Part 1 is a public presentation by the candidate on the main aspects of the research reported in the dissertation. During Part 1 of the defense, questions from the audience to the candidate will be permitted. For questions from individuals outside of the Examining Committee, the Chair of the committee will determine how much time will be allotted for answers.

Part 2 of the Examination will be a formal examination of the candidate by the Dissertation Examining Committee. This examination is open to all members of the graduate faculty, though only the Dissertation Examining Committee may ask questions. All members of the Dissertation Examining Committee must be physically present in the examining room for the duration of the entire dissertation defense. Participation by telephone of any examining committee members is not permitted. In the event that a committee member is unable to physically attend the dissertation defense, one member may remotely video teleconference into the defense with prior approval from the MEES Program and the Graduate School under special circumstances (contact the MEES Office for more information). After the questioning is completed, the committee deliberates and votes in private. Two or more negative votes constitute failure. The student may be examined no more than twice.

Following successful completion of the final examination, final copies of the dissertation must be supplied to the MEES Office and the UMCES VPE Office, in addition to those required by the Graduate School. University of Maryland, College Park will place a copy of the dissertation on [DRUM](#), the digital repository for the University (which does allow copyright embargoes). The dissertation must be prepared based on the guidelines set forth in the [Electronic Thesis and Dissertation Style Guide](#).

All dissertation information related to milestones and requirements discussed here can also be found here: <https://www.mees.umd.edu/current-doc-req-1>.

If a Ph.D. student plans to defend during the summer semester, the student will have to be registered with at least one credit (though more if needed) of MEES899. Students pay per credit based on the tuition rates outlined here:

https://oes.umd.edu/sites/oes.umd.edu/files/OES/Summer/ss20_tuition_fees_worksheet.pdf

UMD Academic Policies

UMCES students enrolled in the MEES Program will follow the University of Maryland, College Park's Graduate School policies and procedures. This includes [registration policies](#), [tuition and fees policies](#), [Master's Degree policies](#), and [Doctor of Philosophy Degree policies](#). If you have any questions about these, please do not hesitate to [contact the UMCES education office staff](#) who can assist you.

Course Registration

To attend classes at the University of Maryland, College Park, it is necessary to process an official registration. Specific registration dates and instructions are available at <http://registrar.umd.edu/current/>. The schedule of courses can be found on [Testudo](#).

Refunds from Dropping an Individual Course

Graduate students may obtain refunds for courses that are dropped during the Schedule Adjustment Period. Students may drop and add courses without penalty (see below) provided that the changes are made on the same day and that the total number of credits does not change. Graduate students are charged by the credit hour. A percentage charge and/or complete charge will be imposed according to the schedule below:

Withdrawal	Refund
Prior to the first day of classes - no charge	100% refund
During the Schedule Adjustment Period - 20% charge	80% refund
After the Schedule Adjustment Period - 100% charge	0% refund

Part-time vs. Full-Time Student Status

Students in the MEES Program will be classified as full- or part-time by the UMD Graduate School. The Graduate School uses a unit system in making calculations to determine full-time or part-time student status. Please note that graduate units are different from credit hours. The number of graduate units per credit hour is calculated in the following manner:

- Courses in the series: 600-897 carry 6 units per credit hour.
- Master's Research course: 799 carries 12 units per credit hour.
- Pre-candidacy Doctoral Research courses: 898 carries 18 units per credit hour.
- Doctoral Dissertation Research: 899 carries 18 units per credit hour. All doctoral candidates must pay candidacy tuition for which they will be registered for six (6) credit hours of 899; this defines all currently registered doctoral candidates as full-time.

To be certified as full time, a graduate student must be officially registered for a combination of courses equivalent to 48 units per semester. Graduate assistants holding regular appointments have full-time status if they are registered for at least 24 course or research units in addition to their assistantship; holders of half-time assistantships are considered full-time if registered for 36 course or research units. Audited courses do not generate graduate units and cannot be used in calculating full-time or part-time status. Please speak with your advisor or business office if you have questions about your original appointment.

Part-time students are limited to nine years in which to graduate for a Ph.D. (with five years for advancement to candidacy), and five years in which to graduate for a M.S. Part-time status will only be granted upon request of the student's advisory committee and approval of the MEES Director. Criteria will include number of hours in employment (>20 hours/week, not on an assistantship) and number of credits registered. Students considered part-time cannot receive UM assistantship or fellowship support.

Academic and Semester Calendars and Deadlines

The UMD semester calendar is located [here](#). This calendar includes holidays, semester start and end dates, and UMD commencement dates.

For details on course deadlines, including the refund schedule for course withdraw, view the [course deadlines calendar](#).

The Graduate School also has academic [deadlines for graduation](#), including what forms need to be turned in and when.

Changing from M.S to Ph.D.

The MEES Graduate Program policy regarding changing from the M.S to Ph.D. level program within MEES is as follows:

- A new application and statement must be submitted for the Ph.D. – no additional transcripts, test scores, or letters of recommendation are required.
- A current and up-to-date transcript must be on file with MEES.
- The initial advisory committee meeting report and research proposal for the M.S. program must be on file with the MEES Office.
- A letter of support for the degree switch, signed by the entire M.S. advisory committee, must be submitted to MEES and the UMCES VPE Office and approved by the MEES Director.
- After review, MEES will submit its decision to the UMD Graduate School.

Finishing an M.S. and starting a Ph.D. within MEES Program

The MEES Graduate Program policy in finishing a M.S and starting a Ph.D. level program within MEES is as follows:

- A new application and statement must be submitted for the Ph.D. including a letter of recommendation from your M.S. advisor and your Ph.D. advisor. If these are the same person one letter will suffice – no additional transcripts or test scores are required.
- A current and up-to-date transcript must be on file with MEES.
- Up to 16 credits from the M.S. program can be applied to waive the 24 course credit requirement in the Ph.D. program.

Changing from one Foundation Area to Another

The MEES Graduate Program policy regarding changing Foundation Areas from that in which the student was accepted to a different Foundation Area is as follows:

- A current and up-to-date transcript must be on file with MEES.
- A letter of support for the switch of Foundation Area must be signed by the student's advisor and submitted to MEES.
- Upon approval, MEES will send the student's entire file to the new Foundation Area for review to confirm that the student meets its requirements.
- The new Foundation Area will render its decision to the student, advisor, and the MEES Office.

MEES Graduate Program Time Limits

(derived from the [UMD Graduate Program Policies](#))

All requirements for the master's degree must be completed within a five-year period. Time taken for an approved Leave of Absence does not count toward this five-year limit.

Ph.D. students must complete the entire program, including the dissertation and final examination, during a four-year period after admission to candidacy, but no later than nine years after admission to the doctoral program. Students must be advanced to candidacy within five years of admission to the doctoral program. Time taken for an approved Leave of is not counted in these time limitations.

University of Maryland Baltimore – Graduate Program in Life Sciences

The following information is derived and summarized from the [GPILS Program Website](#).

The Graduate Program in Life Sciences (GPILS) offers cutting edge research training in basic, biomedical, clinical and population sciences. GPILS offers seven Ph.D. graduate programs and four M.S. level programs. The GPILS graduate programs cover the entire range of biomedical research, from the basics of protein structure and molecular biology, through integrative systems physiology, virology and vaccine development to behavior, cognition, population-based genetics, and the impact of the environment on human health. The programs place a special emphasis on the importance of translational research.

Application and Admissions

Prospective students should fill out the [request more information form](#) and will get sent a program brochure. Students will also receive an email and letter from the appropriate graduate program staff member. Once you are ready to [officially apply](#) you can do so online.

UMB Graduate Catalog – Policies and Procedures

The UMB Graduate Catalog can be found [here](#) and includes links to general information, admissions, registration procedures, and policies.

Program Time Limits

Students must be admitted to candidacy within five years of admission to the doctoral program and at least two full sequential semesters or sessions before graduating. All degree requirements, including the doctoral dissertation and final doctoral examination, must be completed within four years of admission to candidacy and no more than nine years after admission into the doctoral program. The UMB Graduate School grants extensions of time only under the most unusual circumstances.

Change of Degree

An enrolled student who desires a change of degree must submit a written request to her/his advisor and program director. The request should include the reason for the request and the effective semester of change. The request must be approved by the advisor and the program director, and forwarded to the UMB Graduate School for final approval.

Change of Program

An enrolled student who desires to change her/his GPILS program of study within the Graduate School must submit a written request to the program director of the desired program. The request must include the reason for the request and the effective semester of change. The request must also be copied to the director and advisor from the program the student is leaving, and to the Graduate School. In most cases, a new application for admission and supplemental documentation may be required.

Frostburg State University

The following information is derived and summarized from the [FSU Department of Biology Website](#).

UMCES faculty members serve as thesis advisors or committee members in the FSU master's level biology programs. Faculty members can direct the research and receive merit credits for their participation. The two programs offered in the biological sciences represent a joint effort between Frostburg State University and UMCES. Each program is distinct, but both adhere to a common set of requirements.

M.S. Applied Ecology and Conservation Biology

Frostburg State University's Master of Science in Applied Ecology and Conservation Biology uses the extensive resources available at Frostburg State University and diverse field environments. Students in this graduate degree program gain skills to explore complex conservation topics.

M.S. Wildlife/Fisheries Biology

The Wildlife/Fisheries Biology program is designed to prepare students for research and management positions within the public and private sectors. The program allows flexibility, but offers courses required for professional certification in agencies and organizations such as The Wildlife Society and the American Fisheries Society.

Application and Admissions

In addition to the general admission requirements for all graduate programs, you are required to meet the following criteria. All materials must be submitted by March 1 for the fall semester and November 1 for the spring semester.

1. Undergraduate GPA of at least 3.0 on a 4.0 scale.
2. GRE scores with a minimum score of 1,000 (V+Q) (for tests taken prior to August 1, 2011) or 300 (V+Q) (for tests taken on or after August 1, 2011) on the General Test of the GRE. Scores below the above criteria will be considered individually.

3. You must ask three professionals to complete reference forms. Forms can be found [here](#).
4. You are to provide a resume with your application for admission.
5. You are to provide a statement that will summarize your educational goals and research interests.
6. You must contact the department of Biology to secure a major professor that is willing to mentor and work with you as your major professor who will guide your thesis research.

A screening committee composed of FSU biology faculty will examine your transcripts and determine if your course work meets the specified requirements. For specific requirements, see the FSU Biological Sciences Graduate School [website](#).

FSU Graduate Catalog 2020-2021

For more information on the FSU graduate school, policies and procedures, and program requirements and information, please see the [FSU Graduate Catalog](#).

FERPA

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. Students to whom the rights have transferred are "eligible students."

- Parents or eligible students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for parents or eligible students to review the records. Schools may charge a fee for copies.
- Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the parent or eligible student then has the right to a formal hearing. After the hearing, if the school still decides not to amend the record, the parent or eligible student has the right to place a statement with the record setting forth his or her view about the contested information.
- Generally, schools must have written permission from the parent or eligible student in order to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):
 - School officials with legitimate educational interest;
 - Other schools to which a student is transferring;
 - Specified officials for audit or evaluation purposes;
 - Appropriate parties in connection with financial aid to a student;
 - Organizations conducting certain studies for or on behalf of the school;
 - Accrediting organizations;
 - To comply with a judicial order or lawfully issued subpoena;
 - Appropriate officials in cases of health and safety emergencies; and

- State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools may disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools must tell parents and eligible students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify parents and eligible students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school (cited from the U.S. Department of Education).

V - Student Finance and Funding

UMCES students should access their student accounts and payments on <https://billpay.umd.edu/> This should be checked periodically throughout the semester.

Finance

Tuition Remission

Many students are eligible for tuition remission. Tuition remission covers the cost of course credits for the student and is paid for by the grant or assistantships that have been awarded to the student. Forms are made available by the laboratory business office approximately one month before the beginning of the semester and an email reminder is usually sent around that time. Tuition remission may be available for the summer and winter semesters as well.

College Park Student Fees

All students at the University of Maryland College Park are charged mandatory student fees which cover such things as shuttle bus service, tickets to athletic events and use of campus recreational facilities. These fees are not eligible for tuition remission or direct payment by a grant. Students at UMCES Labs can have these fees waived if they agree to not use the services or are not located at UMD. An email will get sent out at the beginning of the semester with information on waiving these fees. In order to waive your fees each semester please fill out the following form: <https://www.mees.umd.edu/mandatory-fee-waiver-request> Please contact mees@umd.edu or agriffin@umces.edu if you have any questions about student fees.

Effective Fall 2017, the University of Maryland (UMD) will charge a fee of \$125 per semester for all newly enrolled students requiring an I-20/DS-2019 issued by the University. For more information, please see the [UMD website on graduate student tuition and fees](#).

Graduate Assistant Stipends

If you are on a graduate assistantship (GA) you can find the policies including information on stipend levels, found in [BOR III-7.11 Policy](#).

Current salaries can be found at: <https://www.umces.edu/human-resources>

Salaries from 2017-2020 can be found here:

<https://www.umces.edu/sites/default/files/FY2020%20GA%20Stipends.pdf>

If you have questions about what level you are currently at and your current rate of pay you can check that information following the steps below:

1. Go to <https://ares.umd.edu/home/> .
2. Click 'Payroll and Human Resources' in the menu on the left hand side.
3. From 'Payroll and Human Resources' menu choose 'Access Personal PHR information'.
4. Enter in your login information.
5. At the top of the resulting screen, click 'Employment Info'.
6. This page will show you your title and other employment information as well as information about your salary, including annual salary.

To view your bi-weekly earnings statement follow the instructions below:

1. Go to <https://ares.umd.edu/home/> .
2. Click 'Payroll and Human Resources' in the menu on the left hand side.
3. From 'Payroll and Human Resources' menu choose 'Bi-Weekly Earnings Statement'.
4. Login.
5. Choose the pay period you are interested in viewing.

Other FAQs about finances can be found here on the [Financial Cheat Sheet](#).

Funding

UMD Funding

Reid Evans Menzer Memorial Summer Research Fellowship: MEES Founding Director, Dr. Robert Menzer, and his family have established an endowment in memory of their grandson to support the summer research of a MEES doctoral student. The fellowship carries a stipend of \$5,000 to be used for research purposes at the awardee's discretion.

Website: <http://mees.umd.edu/menzer-fellowship-detials>

Debbie Morrin-Nordlund Memorial Travel Award: Debbie Morrin-Nordlund, who served as the Assistant Director of the MEES Graduate Program for over 18 years, passed away in 2014. The Morrin family has donated funds in her memory to assist MEES students to present their research at professional meetings. This award provides funds up to \$1,200.

Website: <http://mees.umd.edu/morrin-award-details>

Anne G. Wylie Dissertation Fellowship

The Ann G. Wylie Dissertation Fellowship is part of the Graduate School's Semester Dissertation Fellowship program. This program provides support to University of Maryland doctoral candidates who are in the latter stages of writing their dissertations. The Wylie is full-time fellowship and awarded students can choose to use the fellowship in either Fall 2020 or Spring 2021. Fellowship benefits include a \$15,000 Stipend, a Candidacy Tuition award (899 only), a credit for mandatory fees, and reimbursement for the purchase of an individual health insurance plan for the semester.

Website: <https://gradschool.umd.edu/funding/student-fellowships-awards/ann-g-wylie-dissertation-fellowship>

Travel Awards

UMD Travel Awards

The UMD Graduate School offers two travel grants for University of Maryland graduate students. These grants are intended to help defray the expenses incurred by UMD graduate students who are traveling to scholarly, scientific, or professional conferences to present papers, posters, or other scholarly material. Students may receive each award twice during their graduate education at UMD, once before the achievement of candidacy (including master's students) and, for PhD students, a second time after the achievement of candidacy. To be eligible, students must be presenting a paper, poster, or other type of presentation and must be enrolled at UMD at the time of travel.

- **Goldhaber Award:** The Goldhaber Award is a matching grant and requires that students secure matching funds from an internal or external source prior to submitting an application. Please see complete guidelines for additional information.
- **ICSSA Award:** The ICSSA pays the registration fee for conferences located outside of the United States. Please see complete guidelines for additional information.

For more information and the applications: <https://gradschool.umd.edu/funding/student-fellowships-awards/graduate-school-travel-grants>

Southern Association of Marine Laboratories Student Support Program

Southern Association of Marine Laboratories (SAML) offers limited support to students attending or visiting SAML member institutions to attend a conference, summer program, and/or to support research.

Website: <http://saml.naml.org/members/studentssupport.php>

UMCES Prospective Student Travel Awards

Pending availability, prospective UMCES students have access to funding to support their visit the UMCES campus or laboratory at which they wish to study. For more information or to inquire about availability of funds, email your potential faculty advisor or contact the [Vice President for Education's Office](#).

Laboratory Funding

Appalachian Laboratory Student Funding

Small Student Grants

Each year the AL Graduate Education Committee (GEC) has limited funds for student research proposals. The goal of these awards is to fund activities or supplies that would not otherwise be available or could not be supported on a faculty supervisor's grants. The proposals are competitively ranked and awards are typically in the range of \$500-\$2000 depending on funds available.

Travel Awards

Each year the AL Graduate Education Committee makes limited money available to fund student research proposals. The goal of these awards is to fund travel, activities or supplies that would not otherwise be available or could not be supported on the supervisor's grants. The proposals are competitively ranked and awards are typically in the range of \$500-\$2000 depending on funds available. Proposals will be evaluated based on scientific merit, justification of the requested funds,

and overall quality of the proposal. Announcements and deadlines are made via email by the head of the Education Committee.

Teaching Assistantships

AL students can obtain teaching experience at several academic institutions in the area. AL offers assistantships to selected students each semester to assist with classes taught at the Laboratory. The TA positions are awarded by deliberation of the AL Graduate Education Committee. AL students can also gain experience by teaching at College Park, Frostburg State University, and Allegany College.

Chesapeake Biological Laboratory

Student Fellowship Opportunities

The Graduate Education Committee (GEC) (<https://facebook.cbl.umces.edu/student-issues/gec>) administers several fellowship opportunities for students each year. One or two GEC fellowships per year are awarded for first year M.S. or PhD students. These provide stipend, tuition, and health benefits for two years. Faculty members nominate applicants for this fellowship each year from the new student applications. More information can be found at <https://facebook.cbl.umces.edu/student-issues/gec-fellowships>.

Ruth Mathes Scholarship

This is an annual award of \$2,500 to support graduate student research at CBL. The money is generously donated by the Cove Point Natural Heritage Trust (CPNHT). The Ruth Mathes Scholarship is open to all CBL graduate students, including GEC fellows, regardless of degree program or discipline and is meant to support new research, for a period of 2 years. Research that directly benefits Southern Maryland, particularly Calvert County, is preferred, but not mandatory. The GEC typically makes a single award of \$2,500, so requests for the maximum amount are strongly encouraged. More information can be found at <https://facebook.cbl.umces.edu/student-issues/research-and-awards>.

Travel Awards

The CBL Graduate Education Committee travel awards are offered throughout the year to help defray costs of presenting at a conference. These are open to all CBL graduate students, regardless of degree program or discipline, however they are made exclusively to graduate students who are giving an oral presentation or presenting a poster at the meeting that they are attending. These awards do not support workshop attendance. Students are limited to two awards per calendar year. Awards are \$500 for domestic travel and \$750 for international travel. Presentation of the research in a student "Brown Bag" seminar and four hours per travel award of an outreach/education or development opportunity are required for students who receive the funds. Upon receiving a GEC travel award, students will be notified via e-mail, with cc's to the student's advisor and to the CBL budget office. Further details about the application materials and requirements can be found at <https://facebook.cbl.umces.edu/student-issues/gec-travel-awards>

Teaching Assistantships

CBL students have may gain experience in teaching undergraduate laboratory courses at the University of Maryland College Park. Additionally, there are opportunities to guest lecture, mentor students, and occasionally adjunct teach St. Mary's College of Maryland.

Horn Point Laboratory

Horn Point Assistantships

The Horn Point Laboratory offers, on a competitive basis, several assistantships to incoming students. Student applicants are nominated by the faculty advisor. These awards provide stipend, health benefits and tuition for up to one year for M.S. and 2 years for Ph.D. students.

The HPL Graduate Education Committee also administers other scholarships as may be available. The philanthropically funded Bay and Rivers Fellowship was established in 2010 to augment graduate student support. Additionally, there is a small pot of Bridge Funds of varying amounts that are used to support students' short term as needed.

Ryan Saba Memorial Endowment Fund

This fund was set up to honor Ryan by supporting a Horn Point Laboratory student in the pursuit of their professional goals and dreams in the field of environmental science. It provides a fellowship grant (up to \$2000) on an annual basis and is selected by the HPL Education Committee.

Izaak Walton League of America- Mid-Shore Chapter

This chapter has two fellowships (\$2000) available per year. More information can be found on the chapter's website, <http://www.iwla.org/mid-shore>

Teaching Assistantships

HPL offers several ½-time teaching assistantships each semester to assist with classes taught at the Laboratory. These positions are awarded by the Graduate Education Committee. Students can apply with a letter of support from their advisor. The Graduate Education Committee selects the Teaching Assistants.

HPL students have may gain experience in teaching undergraduate laboratory courses at the University of Maryland College Park, Washington College, and Salisbury University.

Travel Awards

The Graduate Education Committee of HPL offers funding for students to attend meetings or workshops. Approximately twice a year an announcement is made. Students can apply, along with a letter of support from their advisor. All students after the first year are eligible to apply. A student can receive only one award per year. Typically, this support partially covers expenses and the advisor provides additional funding. Available funding is up to \$850 for a national conference and up to \$1500 for international conferences. Students must present during an HPL student seminar as a condition of the award.

Institute for Marine and Environmental Technology

Graduate Enhancement Fund

Each year the IMET Graduate Education Committee makes funds available to support student activities that are not supported on grants. Typically, these include, but are not restricted to: funds for attendance/travel to scientific meetings at which the student is presenting, for publication costs of student first-authored papers, and for costs of printing of dissertations.

James Albrecht Graduate Student Fellowship

This fellowship funds the first year of study for a Master's or Ph.D. student for the next five years and is aimed at bringing incoming students onboard.

Travel Awards

Funds designated to support student travel are available, generally for one national conference per year at \$1000 or one international conference per year at \$1500. There is an application process for these funds and applicants must show other sources of support (i.e. fellowships, other lab support). The pool of funding is limited, so this not guaranteed.

Living Marine Resources Cooperative Science Center

Each year, 3-5 graduate students are supported, or partially supported, by the [Living Marine Resources Cooperative Science Center \(LMRCSC\)](#), a NOAA-sponsored Center. The focus of the LMRCSC is to increase the number of educated, trained and graduated students from underrepresented communities in marine science for career opportunities with NOAA, NOAA contractors, other Federal agencies, and academia. More information can be found here; <https://www.noaa.gov/office-education/epp-msi/csc/noaa-living-marine-resources-cooperative-science-center>

VI - Shared Governance

Graduate Student Council

UMCES Policy ([III-7.11.VI](#)) describes the Graduate Student Council (GSC), an organization representing UMCES graduate students and graduate research assistants. The GSC includes two representatives from each Laboratory Unit. The GSC meets on a regular basis, including an annual Meet and Confer meeting with the Vice President for Education, Vice President for Administration, Assistant to the Vice President for Education, and the head of Human Resources, and members are invited to participate in various UMCES committees and councils. Policies, bylaws, Meet and Confer meeting minutes, committee and council seats, and membership can be found on the website listed below.

Website: <https://www.umces.edu/graduate-student-council>

Email: gradstudentcouncil@umces.edu

Graduate Student Council Chair: Anna Windle, HPL

Graduate Student Council Co-Chair: Kyarii (Kia) Ramarui, IMET

Past Chair: Christina Goethel, CBL

MEES Graduate Student Organization (GSO)

All students working toward an M.S. or Ph.D. in the MEES graduate program are members of the Graduate Student Organization, as are faculty and administration who choose to take part. The GSO appoints two graduate students as the contacts at each of the campuses participating in the MEES Program. The two graduate students who serve on the UMCES Graduate Student Council from each lab also serve on the MEES GSO.

The MEES GSO serves as the legitimate voice of the MEES student body and directs student input on issues concerning the MEES Program to the appropriate administrative levels; it also provides a forum for the exchange of ideas, concerns and information among graduate students and between students and faculty with the goal of establishing a comfortable, productive academic environment.

Email: gso-reps@umd.edu

Website: <http://mees.umd.edu/gso/>

Student Advisory Council to MHEC

The Student Advisory Council to the Maryland Higher Education Commission provides advice to the Maryland Secretary on Higher Education. Council membership includes one student from the student governance body at each higher education institution in the University System of Maryland. UMCES students choose a new representative each year to attend the monthly meetings.

Website: <http://www.mhec.state.md.us/Pages/sac/sac.aspx>

USM-Wide Student Council

The University System of Maryland Student Council was created to provide advice to the Chancellor and Board of Regents. Council membership includes students from throughout the University System of Maryland. UMCES students choose two new representatives every two years to attend the monthly meetings from September-May. Generally these two representatives are the Chair and Co-Chair of the UMCES Graduate Student Council.

Website: <http://www.usmd.edu/usm/workgroups/StudentCouncil>

Graduate Faculty Council

The UMCES Graduate Faculty Council acts on behalf of the UMCES Graduate Faculty in the development and facilitation of all Center policies relating to graduate education. The Graduate Faculty Council is described under the [UMCES Policy and Procedures on Graduate Education \(III-7.10\)](#). Students have two representatives on this council. These representatives are usually the GSC Chair and Co-Chair and serve for two years.

Website: <https://www.umces.edu/graduate-faculty-council>

Graduate Faculty Chair: Dr. Lawrence Sanford, 410-221-8429, lsanford@umces.edu

Faculty Senate

The UMCES Faculty Senate provides faculty with a voice in the deliberation of Center policies, strategies, and administrative decisions that affect the entire UMCES community. There is one student representative on this council, usually the GSC Chair or Co-chair.

Website: <https://www.umces.edu/faculty-senate>

Faculty Senate Chair: Dr. Michael Wilberg, CBL

VII - International Students

International students may find that making the transition to living and studying in the United States can present challenges and prompt culture shock. UMCES faculty, staff, and current students are here to assist with that transition. Please do not hesitate to contact the [education office](#) or the [graduate student council](#) if you have any questions or concerns. Additional helpful information can be found [here](#).

Office of International Student and Scholar Services, UMD

International students should contact the [Office of International Student and Scholar Services](#) to obtain the necessary information on visa requirements and immigration matters. There is a mandatory orientation session offered by this office for all new foreign students. A [schedule](#) with registration information is provided on their [website](#).

The Office of International Student and Scholar Services provides a range of information and services to international students and scholars, including:

- The evaluation of transcripts for all applicants who have completed coursework outside of the U.S.
- Orientation services for international students admitted to UMCES
- Counseling for students on immigration concerns, financial problems, and cross-cultural issues
- Assisting departments in obtaining appropriate visas for visiting scholars and faculty members
- Providing advisement and programs for American and international students interested in studying outside the U.S.

UMCES International students in the MEES Program also have access to [English Editing for International Graduate Students](#). Students can submit portions of their academic writing to be edited for free. This service is done online during the fall and spring semesters.

Effective Fall 2017, the University of Maryland (UMD) will charge a fee of \$125 per semester for all newly enrolled students requiring an I-20/DS-2019 issued by the University. For more information, please see the [UMD website on graduate student tuition and fees](#).

Banking and Money

Currency

The United States uses both coins and paper money for its currency. Coins come in the following denominations: penny = 1 cent; nickel = 5 cents; dime = 10 cents; quarter = 25 cents; and a one dollar coin. Paper money comes in the following denominations: \$1, \$2, \$5, \$10, \$20, \$50, and \$100.

Checking Accounts

Students may set up a checking account at a local or national bank. A checking account allows deposits and withdrawals of currency and checks. Money held in a checking account is generally considered liquid money that it is easily accessible. Checking accounts generally allow money to be withdrawn as cash, check, or cash via a debit card. Student stipends (assistantships and fellowships) are paid by direct deposit into your checking account.

Savings Accounts

A savings account is an account set up for depositing money or checks. Money in a savings account is more difficult to withdraw on immediate request than a checking account. Money in a savings account may accrue a small amount of interest over time.

Filing Income Tax

International students who have a taxable scholarship or fellowship; have income partially or totally exempt from tax under the terms of a tax treaty; or any other income, which is taxable under the U.S. Internal Revenue Code, must file taxes. Tax filings generally are due on April 15 of each year.

See the International Revenue Service for more information on filing taxes:

<https://www.irs.gov/individuals/international-taxpayers/references-for-foreign-students-and-scholars>

Area Information

Police and Emergency

In the case of a safety or medical emergency, 9-1-1 can be dialed from any mobile or desk phone to notify police of a crime, to contact emergency medical assistance, or to report a safety or hazard emergency. In Maryland, if a police or emergency vehicle is underway with its emergency lights on, all drivers are required to safely slow down and move to the side of the road (if possible) to allow the police or emergency vehicle to pass.

Mail and the U.S. Postal Service

Mail is delivered via the United States Postal Service once per day to UMCES Laboratories, Monday through Friday, except on major holidays. Delivery to home addresses is Monday through Saturday. Postage stamps, mailing envelopes, boxes, and packing supplies are available at your local post office. To find your local office, click [here](#).

UPS and FedEx

Alternatively, many packages are shipped nationally and internationally through other shipping companies, including [UPS](#) and [FedEx](#). When shipping packages, it can be helpful to research shipping options and pricing prior to mailing the package.

Climate and Weather

Due to its location and geography, Maryland experiences a wide range of temperatures and weather patterns. Spring and fall have mild temperatures, while summers can be hot and humid. Winters are variable but can be cold and, at times snowy, especially in western Maryland. Maryland also occasionally experiences tropical storms, and rarely hurricanes and tornados.

Transportation

Local Transportation

Paid, public transportation is available at all the UMCES campuses. Note, however, that certain areas might have limited time schedules and/or routes for buses.

AL:

- Allegany County Transit: <https://gov.allconet.org/350/Rider-Information>

Annapolis:

- Annapolis Bus Routes and Schedules: <https://www.annapolis.gov/185/Bus-Routes-Schedules>

CBL:

- Calvert County Public Transportation: <http://www.co.cal.md.us/residents/transportation/>

HPL:

- Maryland Upper Shore Transit bus: <http://www.mustbus.org/>

IMET:

- Maryland Light Rail link: <https://www.mta.maryland.gov/schedule/stops/lightrail>

- Many students at IMET use the Charm City Circulator bus. For more information, including route maps and schedules, see this website: <https://www.charmcitycirculator.com/>

Owning and Operating a Vehicle

It is recommended that students residing in non-urban areas of Maryland purchase a vehicle for local transportation. All vehicles must be insured, registered, and have a title in the owner’s name. It is also important to have the proper license to drive a vehicle in the United States. For more information, see the Maryland Motor Vehicle Administration’s [website regarding international applicants](#).

Traffic Violations

While driving, motorists are subject to a [laws](#) governing driving, including speed limitations, safety regulations, and proper documentation. State and local police patrol the roads to ensure driver safety. If a police vehicle following you turns on its emergency lights, you must safely move to the side of the road, stop your vehicle, and open your window to discuss the concern or violation with the officer. A written warning or a ticket for a violation will be presented, if necessary. Tickets usually result in fines that must be paid to local or state government authorities.

Maryland Sales Tax

Most goods purchased in Maryland are subject to a 6 percent sales tax. Food from grocery stores and prescription medications are exempt from the sales tax.

Tipping (Gratuities)

While not required under state or federal law, tipping at restaurants, hair salons and barbers, and to various attendants or service personnel while traveling often is expected. A 15-20 percent tip at restaurants and beauty salons is customary for good to excellent service. Tips to drivers, service personnel, and hotel attendants while traveling vary depending on the services provided.

US Federal Holidays (dates given for 2020)

Wednesday, January 1	New Year’s Day
Monday, January 20	Birthday of Martin Luther King, Jr.
Monday, February 17	President’s Day
Monday, May 25	Memorial Day
Saturday, July 4	Independence Day
Monday, September 7	Labor Day
Monday, October 12	Columbus Day
Wednesday, November 11	Veterans Day
Thursday, November 26	Thanksgiving Day
Friday, December 25	Christmas Day

Please see the UMCES Human Resources Webpage (<https://www.umces.edu/human-resources>) for the UMCES calendar.

Voting Registration

In order to register to vote in local, state, and national political elections, you must be a U.S. Citizen, a Maryland resident (for local and Maryland elections), and be at least 16 years of age.

For more information and to register to vote, see this [website](#).

Point of Contact

If you have questions about local customs, concerns, or area information, we encourage you to contact your Laboratory Graduate Student Council [representative](#). He or she can assist you with your inquiries.

VIII - Diversity and Equal Opportunity

UMCES is committed to cultivating inclusivity, equity, and diversity in a supportive environment. We are committed to be an exemplar of environmental science professionals reflecting the face of the communities served by its work. Societal relevance of scientific research improves when supported by a diverse work force (UMCES Strategic Initiatives, 2019).

UMCES is committed to be in the vanguard of efforts to make geosciences more diverse, equitable, and inclusive. Our commitment will involve conscious actions to attract, recruit and retain faculty, students and staff from underrepresented minorities in geosciences.

UMCES is committed to creating and maintaining a diverse and supportive learning and research environment for all staff and students.

Education and research opportunities for underrepresented minorities and women are available.

Diversity, Equity, and Inclusion Collaborative (DEIC)

In 2020, UMCES established the Diversity, Equity and Inclusion Collaborative (DEIC) to provide a forum for a community of practice. It partners with the various shared governance groups (some described in section V above) to effect institutional changes required to promote improvements in our diversity, equity, and inclusion. This is an inclusive and open process, and the purpose is to coordinate, convene, and ensure everyone can contribute within their specific interests.

Learn more and see resources from the DEIC here: <https://www.umces.edu/diversity-equity-and-inclusion-collaborative>

Appalachian Laboratory

Students at AL can take advantage of Frostburg State University's cultural events series and activities. For a full list of Frostburg events, see [here](#).

Living Marine Resources Cooperative Science Center

The Living Marine Resources Cooperative Science Center (LMRCSC) is a cooperative agreement between the National Oceanic and Atmospheric Administration (NOAA) Educational Partnership and selected universities. The partnership works closely with [NOAA's National Marine Fisheries Service](#), to train underrepresented undergraduate and graduate minority scholars in areas that support the mission of NOAA Fishery managers. The UMCES component of the LMRCSC is located at the Institute of Marine and Environmental Science. It supports undergraduate research experiences with stipends and travel funds, and graduate training through stipends, tuition and science-related travel.

Website: <https://www.umces.edu/lmrcsc/program-partners>

University System of Maryland Women's Forum Student Scholarship

The USM Women's Forum Student Scholarship is open to all women students attending a USM institution. To be eligible for the award, a student must have earned a total of 48 undergraduate or 9 graduate credits, have a minimum GPA of 3.0, be a U.S. citizen or permanent resident, and have demonstrated financial need.

Website: <http://usmwf.usmd.edu/awards-and-scholarships.html>

American Association of University Women

CBL students run a chapter of the American Association of University Women. Students, faculty, and staff are welcome to attend meetings to discuss issues surrounding women and diversity and inclusion in higher education in the STEM fields. Occasionally, students bring in speakers to talk to the group and facilitate conversation.

Contact: aauw.cbl.chapter@gmail.com

Society for Women in Marine Science

SWMS aims to promote women in all the marine sciences. Resources and opportunities are posted on their website and social media pages. An annual workshop is organized where women can present their work and network with peers in their field. SWMS at Horn Point hosts monthly meetings and several workshops per semester that includes professional development events and round tables with female faculty members.

Contact: hplswms@gmail.com

IX - Student Services and Resources

UMCES has numerous services and research resources available to its students. While some services are located on the website, others are throughout the various campuses. More information can be found on the specific websites or by communicating with the point of contact.

Experts Guide

Students have access to the UMCES Expert's Guide. Here you will find information, organized by research areas, about each UMCES faculty member and the expertise they can provide to students.

Website: <http://www.umces.edu/sites/default/files/UMCES%20faculty%20experts%20guide%202017-18.pdf>

UMCES Website

The UMCES website is a source of information on resources and services for all of the UMCES community. Here are listed web pages of particular interest to students.

[Student Resources and Information](#)

[Graduate Student Council](#)

[Graduate Education - General](#)

[Student Consumer Information](#)

[Graduate Education At-A-Glance](#)

[UMCES News Stories](#)

UMCES Newsletters

The UMCES Graduate Education Office produces a quarterly newsletter, Covalent Bonds, specifically for students, highlighting student work and achievements, providing information on upcoming events, conferences, and funding opportunities, and updating students on student council happenings.

A monthly email entitled, “Inside UMCES” is sent out from the Director of Communications to all UMCES faculty, staff, and students. This email roundup includes news worth sharing and celebrating from the UMCES community.

Environmental Statistics Collaborative

The UMCES Environmental Statistics Collaborative, located at the Chesapeake Biological Laboratory, is committed to providing state-of-the-art statistical advice in support of environmental research for UMCES faculty and students.

Website: <http://esc.cbl.umces.edu/>

Integration and Application Network (IAN)

IAN, located in the UMCES Annapolis offices and at the Horn Point Laboratory, provides opportunities for scientists to build credibility with stakeholders and scientific peers. Creative ways of synthesizing data, communicating results, and developing solutions are emphasized. UMCES students can take advantage of services IAN has to offer, including its Symbol and Image Library, its online diagram creator, and improving science communication skills.

Symbol and Image Library

The IAN/UMCES Symbol and Image Library is provided free for use, except for redistribution or sales.

Website: <http://ian.umces.edu/imagelibrary/>

Science Communication

Throughout the year, UMCES students can utilize IAN to improve their science communication skills. In May of each year, IAN sponsors a course for students interested in effective science communication.

Website: http://ian.umces.edu/learn/science_communication_course/

Library Services

UMCES students have broad access to the University System of Maryland Affiliated Institutions ([USMAI](#)) Catalog, print journals, online journal databases, thesis and dissertations, and print book borrowing. Access to those collections and resources is automatically enabled by inclusion in the PHR system and/or enrollment as a student at an UMCES partner campus. A University of Maryland ID card is useful for checking books out from other USMAI campuses. To access UMD specific journal and database subscriptions in the University of Maryland library site (<https://www.lib.umd.edu>) use your ARES Central Authentication System login when prompted.

Additionally, UMCES has separate, unique journal subscriptions which can be accessed only on campus or via remote VPN set-up. A UMCES specific barcode is required if accessing UMCES library resources from off campus and to order inter-library loan books and articles from non-USMAI institutions. Contact librarian@umces.edu for UMCES barcode and other access issues.

Website: <https://www.umces.edu/library-resources> . This site includes links to the main UMD library.

The National Socio-Environmental Synthesis Center (SESYNC)

The National Socio-Environmental Synthesis Center (SESYNC) is a unique resource for the scholarly management and policy communities. UMCES is a partner in this Center; co-partners are University of Maryland and Resources for the Future. SESYNC brings together diverse groups in interdisciplinary collaborations to identify solutions to society's most challenging and complex environmental problems. Its researchers provide knowledge to inform policy experts and managers.

Website: <https://www.sesync.org/>

Lab Equipment and Technology at UMCES

BioAnalytical Services Laboratory (BAS Lab)

The BioAnalytical Services Laboratory (BAS Lab), located at the Institute of Marine and Environmental Technology, provides state-of-the-art sequencing services and instrument availability to promote advances in genomics and molecular biology research. The BAS Lab services are available to scientists nationwide.

BAS Lab services include:

- DNA Sequencing
- Plasmid Purification & DNA Sequencing
- PCR Product Clean-up & DNA Sequencing
- Genotyping
- Clone Library Construction

Website: <https://www.umces.edu/baslab>

Nutrient Analytical Services Laboratory

The Nutrient Analytical Services Laboratory (NASL) provides analytical support to researchers of the University System of Maryland, state and federal agencies, and the private sector. It is located at the Chesapeake Biological Laboratory.

Website: <https://www.umces.edu/nutrient-analytical-services-laboratory>

Water Chemistry Analytical Laboratory

AL's Water Chemistry Laboratory provides high quality analytical services for UMCES researchers, as well as for a variety of state, local, and private agencies, on water, soil, and plant samples. Constituents include, but are not limited to, nutrients, trace metals, and common acid/base parameters.

Website: <https://www.umces.edu/water-chemistry-lab>

Raman Microscope

Located at the Horn Point Laboratory, an XploRA confocal Raman microscope by Horiba Jobin Yvon, Inc., is available for open use at minimal cost.

Website: <https://www.umces.edu/raman-microscope>

Stable Isotopes Laboratory

The Central Appalachians Stable Isotope Facility (CASIF) is located at the UMCES Appalachian Laboratory. The SIL provides state-of-the-art stable isotope measurements on biological samples of many types and origins.

Website: <https://sites.google.com/umces.edu/stable-isotopes-lab-at-cbl/home>

Horn Point Analytical Services

The Horn Point Analytical Services Laboratory provides a wide range of state-of-the-art water quality analyses for scientists from the University System of Maryland and elsewhere.

Website: <https://www.umces.edu/analytical-services>

Cell Analysis Center

The Cell Analysis Center, located at the Horn Point Laboratory, applies optics to study aquatic microorganisms, using microscopy (fluorescence and phase contrast) and flow cytometry. The instruments also are used for various fluorescence *in situ* hybridization (FISH) techniques.

Website: <https://www.umces.edu/cell-analysis-center>

Central Appalachian Stable Isotope Facility

The Central Appalachians Stable Isotope Facility performs stable isotope measurements on a variety of sample matrices. It measures stable isotope ratios of carbon, nitrogen, hydrogen, and oxygen in environmental samples of solids, liquids, and gases using Thermo Fisher Delta V+ isotope ratio mass spectrometer interfaced with various peripheral devices.

Website: <http://research.al.umces.edu/casif>

Membrane Inlet Mass Spectrometry (MIMS)

Located at the Horn Point Laboratory, the MIMS is optimized for scientists requiring very high precision dissolved gas measurements. This instrument allows for rapid, high precision measurements of dissolved air gases, nitrogen, oxygen, and argon, for application in aquatic denitrification and system metabolism.

Website: <https://www.umces.edu/todd-kana>

Sonar and Optical Plankton Imaging System

Located at the Chesapeake Biological Laboratory, the sonar imaging system is capable of imaging large organisms like fish and jellyfish, which could be used for behavioral studies like fish schooling and quantify organism's spatial distribution. The optical plankton imaging system can image large phytoplankton, zooplankton and larval fish (up to 8 cm) and quantify their spatial distribution. These two imaging systems provide unique opportunities to investigate the spatial overlaps between predator and prey and examine their trophic interactions.

For more information, contact [Dr. Hongsheng Bi](#)

Passive Acoustic Monitoring and Acoustic Telemetry

Underwater hydrophones are used to monitor for the calls made by whales, dolphins and porpoises. These devices can monitor at a range of frequencies and also record other underwater sounds, such as boats.

Acoustic transmitters are used to track the movements of marine species, such as fish and sea turtles. Mobile or fixed receivers can detect the tagged animals and monitor their movements for a period of hours to several years.

For more information, contact [Dr. Helen Bailey](#)

Field Work and Research Tips

Many students at UMCES will participate in field work as part of their laboratory's work or for their own research. Field work can be a new environment for many and while for many it will look slightly different (land work, river work, offshore work, boats etc.) there is some great broad information about what someone can expect in the field, inclusive field practices, safety precautions, and other topics here:

https://serc.carleton.edu/advancegeo/resources/field_work.html?fbclid=IwAR03jkceyiEvC42BCC1es-5pnB1FuRDCPQOvp_ekeD2kVJ_nISU5foZawgc

Generic Field Work Tips and Safety

All details for field work plans should be finalized and created in consultation with your primary advisor, faculty, or PI for the given work; however, below are a few broad tips to consider when conducting field work.

Clothing

Clothing in the field generally consists of close toed shoes, and covering that is appropriate to the environment you are working in. For example, when conducting field work on the Chesapeake Bay in July a tank top might be appropriate, whereas field work in the Arctic in July warmer clothes should be packed and worn.

When working on boats and ships life jackets will usually be worn.

Specifics in clothing requirements and clothing needs like waders or steel-toed shoes will be discussed with your team prior to conducting the research.

Bathroom Use

Each field type will have different bathroom amenities. Bathrooms may be unavailable or shared with multiple other people so plan accordingly. Be cognizant of the situation and polite and respectful to the rest of your group.

Food

Field days can be long and often are 12+ hour days away from your home base. Many students travel with snacks, as appropriate, when heading out to a field site or on to the boat. Portable snacks and water bottles are highly encouraged.

General Safety

A general rule of thumb that will be followed: Fieldwork will not be conducted alone, and you will need to always have a least one other person approved in the field with you.

UMCES Research Fleet

The University of Maryland Center for Environmental Science's Research Fleet is the backbone of the Center's coastal science research programs, providing scientists with access to the Chesapeake Bay and its tributaries. Home-ported at the Chesapeake Biological Laboratory in Solomons, the research fleet consists of the 81-ft RV Rachel Carson and 16 small vessels stationed at the Chesapeake Biological Laboratory and the Horn Point Laboratory.

Director of Marine Operations: Capt. Michael H. Hulme

Phone: 410-326-7358, 410-326-7350

Email: hulme@umces.edu

Website: <https://www.umces.edu/research-fleet>

Scheduling Vessels and Boats

The 81-foot *Rachel Carson* is a multi-purpose vessel that can support a wide variety of estuarine and near-coastal oceanographic research, including dredging, trawling, coring, water quality observations, plankton sampling, and buoy deployment.

Students frequently participate in research surveys and cruises, usually as a participant but occasionally as the principal scientist. For small-boat use, all operators must take and pass a test on boat operation administered by Research Fleet personnel.

When planning a cruise, it is important to remember that U. S. Coast Guard regulations stipulate that the vessel's crew can be underway for no more than 12 hours a day.

A Cruise Plan must be prepared by the Principal Investigator or Chief Scientist and submitted to the Marine Superintendent at least one week in advance of the cruise. The plan should include the following information:

- Time of departure
- General cruise itinerary
- Station coordinates.
- Number of people in scientific party
- Gear needed from the RFO equipment pool
- Special loading, rigging or testing requirements
- Grant or contract number for billing

Research Fleet Operations (RFO) will begin accepting requests for use of *Rachel Carson* in November for the following calendar year. Requests for vessel time can be made by [e-mailing](#) the above information to Captain Michael Hulme. The current cruise and vessel schedules are available [here](#).

Diving

Faculty and students at the University of Maryland Center for Environmental Science occasionally use scuba diving as a scientific tool. UMCES has joined in with several other USM institutions toward a consolidated USM Scientific Dive Safety Program. Josh Dykman, the Diving Safety Officer (DSO), is located at UMD. He can be reached at: divesafety@umd.edu

Desk: 301-405-3062

Cell: 443-716-5698

For more information, please go to: <https://essr.umd.edu/research-safety/scientific-diving>

Website with dive resources: <https://www.umces.edu/umces-diving>

Useful Software

Many software packages, useful for teaching and research, are available to students and faculty in UMCES.

Camtasia

Camtasia lets you record a video of what is on your computer screen. Use it to make lessons, tutorials, or product demos. Turn your screen recordings into compelling videos with Camtasia's video editing tools, animations, and effects.

Ask IT Department at your laboratory for more information.

Adobe Creative Cloud Apps

Adobe Creative Cloud (CC) is a web-based service that allows customers to download many of Adobe's most popular Creative Suite applications and cloud services via a cloud server. Among the apps offered through Adobe Creative Cloud are Photoshop, Illustrator, InDesign, Acrobat, Edge Animate, Muse, as well as Adobe's new Touch Apps for mobile devices.

Website: <https://www.umces.edu/information-technology>

Lynda

Lynda.com is a tutorial site that has a multitude of software "classes" to be taken at your own pace. There are 10 licenses for UMCES. You will need to reserve a time to use this service.

Website: <https://www.umces.edu/lynda-access-umces>

For more information, contact: hplcahelp@umces.edu

Matlab

MATLAB is a high-level language and interactive environment that enables you to perform computationally intensive tasks faster than with traditional programming languages such as C, C++, and Fortran. Students of UMD can obtain a license for MATLAB with a variety of Toolboxes under the Total Academic Headcount Student license.

Website: <https://terpware.umd.edu/Windows>

R-studio

R-Studio is a set of integrated tools designed to help you be more productive with R. It includes a console, syntax-highlighting editor that supports direct code execution, as well as tools for plotting, history, debugging and workspace management.

Website: <https://www.rstudio.com/products/rstudio/download/>

Graduate Student Writing Services

In addition to the required professional development communication courses for students in the MEES program, writing services and assistance are available to all UMCES graduate students. For more information regarding writing assistance, see the sites listed here.

- MEES/UMD: <http://gradschool.umd.edu/graduate-school-writing-center>
- MEES International Students: [English Editing for International Graduate Students](#)
- FSU: All writing appointments are made using our online scheduling software, TutorTrac. The link: <https://tutortrac.frostburg.edu/TracWeb40/Default.html>
- GPILS/UMB: <http://www.umaryland.edu/writing/>

X - Student Activities

MEES and UMCES students are invited to a few activities throughout the year, with new students being invited to the New Student Orientation and all students invited to the annual MEES Colloquium. Each of the Laboratories also sponsors activities primarily targeted to its graduate students. Throughout their course of study, students can take advantage of these campus lectures, seminars, and events, bringing together the campus communities while gaining additional educational experiences.

New Student Orientation

UMCES hosts a university-wide new student orientation every fall at the Annapolis Office and a virtual spring orientation over Zoom. New students are required to attend this day-long orientation. Information presented will include human resources, IT, MEES, GPILS, and FSU Program overviews, and key UMCES and laboratory contacts.

Students will also attend a lab-specific orientation. While the formats of the meetings will vary by laboratory, all students will receive pertinent information to ensure success throughout their studies.

MEES Colloquium

Each year students and faculty from all the campuses involved in the MEES Program gather at one of the MEES campuses for a Graduate Colloquium. The two-day event features student presentations and posters, faculty presentations, guest talks, and social events. The Colloquium provides a good opportunity for students to present their research in a friendly environment as well as to learn what other students in the MEES program are doing. All students are strongly encouraged to attend this event.

Posters and Presentations

All graduate students (new and continuing) are encouraged to present their research at the Colloquium. The Program requests that graduate students entering the third (M.S.) or fifth (Ph.D.) year of the MEES Program present a poster. The poster session is designed to provide an informal, comfortable setting for graduate students to present their research, obtain feedback on research projects, and inform faculty and students of the research being conducted in the MEES Program. It will also serve to enhance communication and understanding among campuses and areas of specialization.

MEES All Student Meeting

As part of the MEES Colloquium, the chair and co-chair of the UMCES Graduate Student Council host an all-MEES student meeting. This meeting is designed as a time to discuss updates and any pertinent

program information that has come up in the previous year, and to broadly check in with the student body. It is also a great time for everyone to gather and meet the fellow MEES students.

Appalachian Laboratory (AL)

Brown Bag Seminars

This lunchtime seminar series is held to highlight student, staff, and faculty research at AL. It provides an informal and friendly atmosphere for practicing for oral exams and/or conference presentations. The schedule is determined at the beginning of each semester, and depending on the current number of graduate students, its schedule varies from year to year.

Visiting Scholar Seminars

During the academic year, AL invites speakers from regional and national institutions to give an hour-long afternoon seminar, typically on Thursdays at 3:30 PM. Students have lunch with the seminar speakers, attend speaker seminars, and participate in informal post-talk receptions with faculty and staff. These seminars may also be attended by the general public as part of the lab's commitment to education and public service.

Website and schedule: <https://www.umces.edu/al/seminars>

Watershed Moments Community Learning Series

AL offers adult learners the opportunity to engage their right and left brains as they learn more about the pressing environmental issues of our day, from endangered species to climate change, from water pollutants to improvements in air quality. From lectures to film screenings, these community-focused events are free and open to the public. Speakers may be locally or nationally known, depending on the topic. Students may choose to attend and volunteer, if desired. *Website and Schedule:* <https://www.umces.edu/al/watershed-moments>

Open House

AL's Open House is an incredible opportunity for the lab and graduate students alike. Because of the "all hands on deck" nature of the event, students typically volunteer for this family-focused learning event. They may lead a hands-on activity, assist a faculty member, or share their own research techniques and findings. Organized by AL's Lab Manager and a Volunteer Committee, the Open House is often held in combination with the Western Maryland STEM Festival and the Allegany County Public Schools. It provides an exceptional opportunity for students to communicate with learners of all ages, especially children, and from all backgrounds, levels of education, and varying degrees of interest.

Chesapeake Biological Laboratory (CBL)

Brown Bag Seminars

A Friday lunchtime seminar series is held to highlight student research, give students practice with oral presentations, and provide a forum for the CBL community to learn more about current research on campus. Students are expected to present their work at least once a year after their first year and if they receive a GEC travel award. It is a nice way for students to practice their presentation for a meeting in a friendly environment. The schedule is determined at the beginning of each semester and can be found at https://www.umces.edu/events?field_campus_target_id=4

Distinguished Scholar Seminar Series

During the fall and spring semesters, formal seminars are typically held on Wednesdays at 3:30 p.m. The schedule is announced on the CBL website [here](#). These hour-long seminars are given by scientists invited to CBL by the faculty and are coordinated by a rotating pair of faculty members. Speakers are usually scheduled to meet with faculty and students throughout the day before the presentation. The students and faculty research assistants (FRAs) have the opportunity to meet with the speaker during a one hour long lunch time pizza lunch discussion. Additionally, they can request special times to meet with the speaker. A social hour with refreshments occurs after the seminar to provide further opportunity for all to interact with the seminar speaker.

American Fisheries Society Student Subunit

CBL hosts the University of Maryland student subunit of the American Fisheries Society (AFS). This group is composed of graduate students, research assistants, and faculty who are members of the AFS and interested in growing their scientific and interpersonal skills through discussions and outreach. See the blog if you are interested in joining: <http://afs-umd.blogspot.com/>

American Association of University Women

CBL students run a chapter of the American Association of University Women. Students, faculty, and staff are welcome to attend meetings to discuss issues surrounding women and diversity and inclusion in higher education in the STEM fields. Occasionally, students bring in speakers to talk to the group and facilitate conversation.

Website: <https://www.aauw.org/>

Contact: aauw.cbl.chapter@gmail.com

R-Club at CBL

This group is open to all at CBL and generally meets twice a month. Specific meeting days and times are determined at the beginning of each semester to accommodate as many interested parties as possible. They meet to discuss different tips, tricks, and methods in R. Some meetings have agendas, other meetings are designed for members to bring projects and questions they are currently working on.

Contact: cbl_useRs@googlegroups.com

Outreach Opportunities

CBL has an active outreach program run out of the Visitor Center located in the Solomons House. Students can volunteer to help with these activities and will gain experience speaking to members of the public about their research and CBL science. Students can volunteer as Visitor Center docents, can staff educational displays for special community events such as the Patuxent River Appreciation Day (PRAD), and can lead the weekly public campus tours. The Outreach Coordinator schedules volunteers for these activities.

Website: <https://www.umces.edu/cbl/outreach>

Science for Citizens Seminar Series

Science for Citizens seminars are split into a fall and spring series, each of which will include five seminars. Each Science for Citizens seminar will be presented by an UMCES scientist and will inform the public about a featured research effort.

Website and Schedule: <https://www.umces.edu/cbl/science-citizens>

CBL Open House

This event is usually hosted in September and is open and free to the public. Exhibits and hands-on activities include: piloting an underwater robot, experiments about toxicology, tours of the research ship the R/V Rachel Carson, and a scientist selfie station. Children attending the Open House receive a passport and move through the different labs and experiments to have the passport stamped for prizes. All labs and members of the CBL community are encouraged to participate by setting up booths to present their lab's work, design and engage in interactive activities, and answer any questions in a way that is easy for non-scientists to understand.

Horn Point Laboratory (HPL)

Faculty Seminars

Weekly seminars are in the HPL auditorium (Coastal Science Bldg.) at 11:00 am on Wednesdays unless otherwise specified. There is usually time to meet with the seminar speaker before and after the talk and during lunch.

Ian Morris Scholar in Residence

Approximately every two years, students and faculty join to select an Ian Morris Scholar in Residence. The Ian Morris Scholar in Residence program provides an opportunity for students to get to know scientists of stature who have made major contributions to areas of environmental science that are of interest to our faculty and students. The Ian Morris Scholar is invited to spend a week at the lab, conduct several seminars, roundtables, and workshops on a variety of topics related to his or her expertise. Students actively help in the arrangements for the week, both scientific and social.

Website: <http://www.umces.edu/hpl/ian-morris-scholar-residence>

Outreach Activities

There are several opportunities each year for students to interact with the public during outreach activities. These activities offer students a chance to engage with the public and hone their public speaking skills when talking about their research to non-scientists. Outreach activities can take the form of giving campus tours, presenting at career fairs and STEM events, or staffing a display table at festivals/events around the area, including the Horn Point Open House that takes place annually. In addition, students are involved as volunteers in development activities as ambassadors for their education and research programs.

Contact: cstarr@umces.edu

Society for Women in Marine Science

SWMS aims to promote women in all the marine sciences. Resources and opportunities are posted on their website and social media pages. An annual workshop is organized where women can present their work and network with peers in their field. SWMS at Horn Point hosts monthly meetings and several workshops per semester that includes professional development events and round tables with female faculty members.

Website: <http://swmsmarinescience.com/>

Contact: hplswms@gmail.com

Student Seminars

All students at HPL, except those in their first year, are expected to give a seminar on their current research each year. These seminars are given as part of the student seminar series and provide an opportunity for students to practice speaking in public to a familiar audience while simultaneously keeping the HPL community aware of your research. Student seminars are also a prerequisite for consideration for funding through teaching assistantships or other awards administered by the Education Committee. Seminars are on Friday at 3:00pm in the Coastal Science auditorium unless otherwise specified.

Horn Point Open House

In October, HPL invites the public to an Open House. Every year has a different theme that features exhibits by the laboratory's scientists. Students and faculty explain their research with activities and displays that make it easy for the public to understand. The public can watch scientific models, perform hands-on demonstrations, crafts, and touch tanks. The open house is designed to interest all ages.

Green Drinks

A meeting of environmental folks, including businesses, non-profits, and trusts interested in enriching local culture and supporting stewardship of the environment for the middle Eastern Shore. This is a fun, informal gathering with folks from all over the Eastern Shore with environmental interests. Meeting places change and emails are distributed with information. Visit the Green Drinks Eastern Shore Facebook page for the next date and location!

Facebook Page: <https://www.facebook.com/greendrinkses/>

Student Sports

Students meet during different parts of the year for various sports, including soccer, basketball, horseshoes, hockey, ultimate Frisbee, and volleyball. Contact hplcahelp@umces.edu to get added to the sports email listserv.

R-Club at HPL

The club welcomes all interested in R to join (beginners, intermediate, and advanced). Come and keep up to date with latest R content or come to learn how to use different packages and improve your coding! Weekly meetings will take place on Wednesdays at 10 am in Coastal Sciences Building.

Other Activities at Horn Point

Horn Point Laboratory has many student resources and hosts a variety of other events. These include the Horn Point Community Garden, a composting group, the Writing and Reading Club, and the New Student Party tradition. For more information, please contact your HPL student representatives (gradstudentcouncil@umces.edu) and they will be happy to answer your questions.

Institute of Marine and Environmental Technology (IMET)

Ratcliffe Environmental Entrepreneurship (REEF) Program

The REEF Program, funded by the Philip E. and Carole R. Ratcliffe Foundation, is a program unique to UMCES and IMET. Students attend monthly “short courses” to refine their presentation skills, learn about marketing and investors, and perfect their business pitch. The program includes fellowship and business start-up opportunities. Students are not required to have a business idea to participate- just a desire to learn a number of marketable skills. REEF alumni have used their skills to land postdoctoral positions and begin their own startups. The REEF program is open to all UMCES students. Please contact Monica Chacon (mchacon@umces.edu) for more information.

Entrepreneur Office Hours

IMET’s Incubator, Harbor Launch, hosts monthly Entrepreneur Office Hours on site. At these sessions, students have the opportunity to meet with investors and professionals that could assist them at almost any stage of the entrepreneurship process- from refining an idea to finding investors.

More information at: <http://www.eoh.umd.edu/>.

Seminars

IMET hosts regular seminars that are held on-site. Primarily held on Wednesday afternoons, the seminars provide students, faculty and staff the opportunity to learn about a new or familiar topic in a convenient and familiar setting. The speakers are available for most of the day to meet with faculty and students. The schedule is found on the IMET website: <http://www.umbc.edu/blogs/imet/events/>

Microbial Biotechnology Club

Laboratory staff and students from IMET and UMBC gather monthly to present research, collaborate on projects and guide any scientist that may need assistance. Meetings alternate locations between UMBC Campus and IMET.

Living Marine Resources Cooperative Science Center (LMRCSC) Seminar Series

The LMRCSC Seminar series is held monthly via Adobe Connect. This series is organized by students funded by LMRCSC from a number of different institutions, including UMCES, University of Maryland Eastern Shore, Hampton University, Oregon State University and more.

IMET Open House

Every May, IMET opens its doors to the public for an afternoon, providing an opportunity to meet IMET students and faculty, take a behind-the-scenes tour of the Aquaculture Research Center (ARC), learn about recent scientific discoveries, and enjoy hands-on activities for all ages. All labs are expected to participate by setting up booths to present their lab’s work, design and engage in interactive activities, and answer any questions in a way that is easy for non-scientists to understand. This annual event is an outreach activity intended to involve the public in the scientific happenings at IMET.

SESYNC and UMCES

The National Socio-Environmental Synthesis Center (SESYNC) organizes the Annapolis Café Scientifique—a place where, for the price of a cup of coffee or a glass of wine, anyone can come to

explore the latest ideas in science and technology. Café Scientifique meets the last Thursday of every month (except November and December) at 6:30 p.m.

Website: <http://www.sesync.org/cafe>

XI - Campus Logistics/Basics

This section provides the basic information you will need to know around campus, including email access, travel, and timesheets.

Student IDs at University of MD, College Park

UMCES students in the MEES Program have the option of obtaining a UMD student ID card. This card is issued solely for the purpose of accessing programs and services administered by the University of Maryland, College Park. Your I.D. card should have a barcode on the back of the card, which is used to access UMCES library specific subscriptions. A University I.D. number is located on the front, which is used for your ARES login and to access the UMD main campus library resources. To receive a student ID card, students must be registered for classes for the current or upcoming semester.

For more information, see this website: <http://registrar.umd.edu/current/Policies/id-cards.html>

IMET – Badge Access and Parking

Parking at the UMCES IMET location is paid and needs to be requested through the UMCES administrative office at IMET. More information, including the Columbus Center Transportation Enrollment Form, is located [here](#). Additionally, students may request a temporary visitor parking space, if needed. Parking for students on the weekends and evenings is free.

Sustainability and Recycling

UMCES encourages its faculty, staff, and students to recycle. Throughout the Laboratory campuses, you will see recycling receptacles for paper, plastic, cans, and cardboard.

Work Related Travel

Throughout their studies at UMCES, students may have opportunities for research-related travel. There are certain procedures students must follow to schedule travel and receive reimbursement. Before travel and purchasing of any items (i.e. flights, lodging, etc.) for that travel, a Travel Approval Request (TAR) must be filled out. Once travel is complete a Travel Expense Statement (TES) needs to be submitted. Advisors can help with this process and will sometimes fill out group TARs for all participants if there are multiple travelers on the same trip. All participants in the travel, however, must fill out an individual TES after travel is complete. Travel contacts at each lab's business office can also help with associated travel and specific form questions. To access the TAR and TES forms follow the instructions below:

1. Go to ares.umd.edu
2. On the left-hand menu click "Electronic Forms"
3. Login in using your credentials
4. In the bottom left hand side of the screen click "Access my forms"

5. A list of your ongoing and approved forms will appear. To start a new TAR or TES click the button in the upper left corner that says, “New Form” and then choose the form you need to fill out.

Scheduling Vehicles

Any person, including students, driving a State-owned vehicle must have a driver's license that is valid in the State of Maryland, comply with all traffic laws, and obtain approval as required by UMCES or its Laboratory Units. An employee may not drive a state vehicle if the employee has accrued in excess of 5 points on their driver's license. It is the employee's responsibility if they have an out-of-state license to obtain a copy of their driving record once a year and submit a report to the UMCES Fleet Manager. If an employee has a valid Maryland driver's license, this report is automatically sent to the Fleet Manager.

Online form: <https://www.umces.edu/vehicle-request-form>

Video Networking Programs

Interactive Video Network (IVN)

IVN, the University System of Maryland's Interactive Video Network, provided infrastructure for voice and video conferencing for the University System community and other educational institutions in the State of Maryland for many years. IVN sessions enable live interactive distance education as well as teleconferencing for meetings and other academic and administrative events. In lieu of regularly driving to the various UMCES Labs across the state, faculty, staff, and students connect to meetings and classes via IVN. Most UMCES-taught classes were offered over IVN. **However, IVN is currently being phased out due to its hardware dependence and the recent rise of platform-independent, highly capable video communication software such as Zoom and Webex. Thus, IVN information is included here only for special circumstances in which it may still be required, and not for regular use.**

Scheduling IVN

Occasionally, students may wish to secure IVN-capable rooms for research purposes, proposal and thesis defenses, Graduate Student Council meetings, and other related activities. Students have access to and use of IVN rooms across the UMCES and USM campuses. IVN rooms at all campuses must be reserved in advance. Fill out a request form or email to the IVN coordinator at your respective Lab.

- AL: kharper@umces.edu
- CBL: Cbl-events@umces.edu; also see form at <https://www.umces.edu/event-room-request-form>
- HPL: jparks@umces.edu
- IMET: <https://www.umces.edu/columbus-center-roomivn-reservation-request>

Zoom

Another platform commonly used for online meetings and classes is Zoom. Zoom is a web-based application enabling faculty, staff, and students to host meetings, webinars, and conference calls

remotely. UMCES has a number of Zoom login credentials for use. Please contact your lab's assistant director or IT group for more information on your lab's credentials.

To download Zoom for your desktop, laptop, or mobile device, please see the Zoom website: <https://zoom.us/download>

UMCES IT Director Kurt Florez has identified the following minimum requirements for a successful Zoom connection: An internet connection that is at least broadband wired or wireless (3G or 4G/LTE). Minimum bandwidth is 600kbps (up/down) and recommended is 1.5 Mbps (up/down). Check your Internet bandwidth using Speed Test: <https://www.speedtest.net/>

IT

The IT staff at each Laboratory of UMCES provides individual computer service, open computing facilities, and access to a rich set of software, Internet, and electronics services, including: email, file transfer and storage, local networking services, phone service, specialized electronics services, and means to create websites. UMCES computer accounts are required to access the UMCES open computing classrooms and file/email access. Policies for computer and IT use and access are provided at: <http://www.umces.edu/sites/default/files/UMCES%20Computer%20Use%20Policy.pdf>

For IT assistance, telephone or email the contact at your respective campus:

- AL: efarris@umces.edu
- CBL: Cbl-IT@umces.edu
- HPL: hplcahelp@umces.edu
- IMET: ccsupport@umbc.edu

Email

All faculty, staff, and students at a Lab may obtain a computer account, which also provides an e-mail account. New students are automatically issued an account. All UMCES email addresses end in @umces.edu.

XII - Health and Safety

In UMCES, student health and safety are top priorities. Information herein is intended to provide students with an overview of health resources and safety measures available in UMCES. For additional or more detailed information, or for information regarding specific health insurance plans available through the University System, contact the Human Resources (HR) Director in Center Administration or the HR contact at your Laboratory.

Health Related Policies and Services

HR Contacts

<p style="text-align: center;">Center Administration Lisa A. Ross, PHR / Director, Human Resources / 410-221-2017 / lross@umces.edu April Lewis / HR Administrator / 410-221-2018 / alewis@umces.edu</p>
<p style="text-align: center;">Appalachian Laboratory Heather Johnson / 301-689-7111 / hjohnson@umces.edu</p>
<p style="text-align: center;">Chesapeake Biological Laboratory Stacy Hutchinson / 410-326-7364 / shutchinson@umces.edu</p>

Horn Point Laboratory Addie Cropper / 410-221-8241 / acropper@umces.edu
Institute for Marine and Environmental Technology Monica Chacon / 410-234-8898 / mchacon@umces.edu
Maryland Sea Grant Jeannette Connors / 301-405-6376 / connors@mdsg.umd.edu

Family and Medical Leave Act

Per [UMCES Policy VII-7.50](#), Exempt and Nonexempt staff employees on Regular Status are entitled to up to a maximum of twelve (12) weeks of unpaid leave during a twelve (12) month period for certain family and certain serious health condition reasons. See the policy for more details.

Parental Leave and other Family Supports for Staff

The University System of Maryland [Policy VII-7.49](#) states that each eligible staff employee shall be assured a period of up to eight (8) weeks of paid parental leave to care for a new child. The parental leave period will consist of any form of annual, sick, personal, holiday or leave reserve fund leave accrued or otherwise available to the employee under USM policies, to be supplemented as necessary by the institution with additional paid leave days to attain an eight (8) week period of paid parental leave. This leave is available during a six (6) month period surrounding: 1-the birth of a newborn; 2-the recent adoption of a child under the age of six; and 3-at the discretion of the UMCES President or designee and subject to any limitations established by UMCES, the assumption of other parenting responsibilities, such as foster parenting or legal guardianship of a child under the age of six.

Health Insurance Information

UMCES graduate research assistants are eligible for health insurance, including health, dental, vision, and prescription coverage. Enrollment must be within the first 60 days of employment. For more information, contact your Laboratory HR representative, or access the website:

<https://www.umces.edu/human-resources>

UMCES Mental Health Resources

In an emergency, dial 9-1-1 or visit your nearest emergency room.

College Park Resources

Students registered in the MEES program (or any other University of Maryland College Park affiliated program) have access to the Mental Health Services provided by the University of Maryland, College Park.

Website: <http://www.health.umd.edu/mentalhealth/services>

In addition to the Mental Health Service, UMD offers counseling services, including available walk-in hours.

Website: <http://www.counseling.umd.edu/>

Guidance Resources Online – Employee Assistance Program

All students, whether employed as graduate assistants or not, whether you have elected for health insurance coverage through the state or not, are covered under the Employee Assistance Program (EAP). This program provides a number of resources including online or over-the-phone counseling and consultation services, articles, videos, forums, and other resources to assist UMCES students in addressing life issues.

UMCES HR Website with Additional Information: <https://www.umces.edu/human-resources>

Lab Resources

Health insurance plans now must cover mental health services. Accordingly, even if you do not have a University of Maryland benefits plan, your insurance may cover mental health counseling and/or psychiatry from providers of your choice. You can contact local mental health providers (counselor or psychiatrist) to verify insurance coverage, or check your provider directory on your insurance website to see if a provider is listed.

UMCES has developed a [living document of mental health resources](#) available to students, staff, and faculty. The document highlights state level resources as well as local resources for each of the lab units (AL, CBL, HPL, IMET, IAN, and MD Sea Grant).

Students with Disabilities

UMCES is committed to creating and maintaining a workplace accessible to all students, regardless of physical or mental disabilities, and will ensure there are no barriers that interfere with ability of students to perform their job duties and excel in their studies.

Safety and Security

Local Contacts

University of Maryland Center for Environmental Science (UMCES) is committed to providing a safe environment for faculty, staff, students, visitors, and volunteers in all its sites. UMCES provides campus security for each lab location by establishing a Memorandum of Understanding (MOU) with local law enforcement departments or other security entities:

Appalachian Laboratory Frostburg State University Police / 301-687-4222 (emergency) or 301-687-4223 (non-emergency)
Chesapeake Biological Laboratory Calvert County Sheriff's Office / 410-535-2800
Horn Point Laboratory Dorchester County Sheriff's Office / 410-228-4141
Institute for Marine and Environmental Technology University of MD Baltimore Police / 410-706-6882

For all emergencies, dial 9-1-1

Campus Safety and Emergency Policies

Each Laboratory operated by UMCES has established written emergency preparedness plans.

- [Appalachian Laboratory \(AL\)](#)

- [Chesapeake Biological Laboratory \(CBL\)](#)
- [Horn Point Laboratory \(HPL\)](#)

Omnilert

Omnilert is a service allowing mass notification by sending time-sensitive information to large groups of people. One can register with the service and receive text, email and/or voice messages during emergency situations. UMCES subscribes to Omnilert. Each student or employee must register to be included in the system. It is UMCES policy that all personnel, including students, must register.

Website: <https://www.umces.edu/omnilert-campus-emergency-notification-system>

Safety Training

Basic facility and campus safety will be reviewed with all new students and employees within the first few days on campus. This will include the proper procedures for reporting issues and concerns as well as keys/access to campus facilities. Detailed laboratory specific training will be conducted with every new student and their PI including proper use of laboratory equipment and safe handling of materials within their respective laboratory. SDS “Right to Know” training is scheduled with each individual student via an online resource within the first month of employment. This training is scheduled by the Central Office Safety Officer.

Sexual Misconduct Policies

UMCES is committed to providing a working and learning environment free from Sexual Misconduct, including sexual and gender-based harassment, sexual violence, dating violence, domestic violence, sexual exploitation, and sexual intimidation. Sexual Misconduct is a form of sex discrimination prohibited by state and federal laws, including Title IX of the Education Amendments of 1972 as amended (“Title IX”) and Title VII of the Civil Rights Act of 1964, and may also constitute criminal activity.

UMCES endeavors to foster a climate free from Sexual Misconduct through training, education, prevention programs, and through procedures that promote prompt reporting, prohibit retaliation, and provide for timely, fair, and impartial investigation and resolution of Sexual Misconduct cases in a manner that eliminates the Sexual Misconduct, prevents its recurrence, and addresses its effects. All UMCES community members, including students, are subject to this policy, regardless of sex, sexual orientation, gender identity, or gender expression. This Policy applies to Sexual Misconduct in connection with any UMCES laboratory, office, education program, or activity.

For more information on the UMCES Sexual Misconduct Policy (VI-1.60), see this website:

<http://www.umces.edu/sites/default/files/VI160UMCES.pdf>

For sexual misconduct resources, see this website: <https://www.umces.edu/sexual-misconduct-resources>

XIII - Graduation and Beyond

Joint Degree Information

UMCES is authorized to jointly award degrees in Marine-Estuarine-Environmental Sciences (MEES) with the University of Maryland College Park (UMD). UMCES students in MEES and their advisors may request a joint degree. To request award of a joint degree, the student and advisor must complete and submit [this form](#), with its required signatures when applying for graduation at College Park. The form must be sent to the UMCES Vice President for Education for approval. Upon approval, the request will be forwarded to the MEES Office and UMD Graduate School for required approvals.

For questions or to submit the form, email [Amy Griffin](#)

Applying for Graduation (MEES)

Candidates for Masters or Doctor of Philosophy degrees must apply for graduation through their respective programs.

Filing dates

MEES/UMD: <http://gradschool.umd.edu/calendar/deadlines/academic-deadlines>

FSU: <https://www.frostburg.edu/academics/calendar.php>

GPILS/UMB: <https://www.graduate.umaryland.edu/Current-Students/Information-for-Graduating-Students/>

UMCES Commencement

Each May, UMCES holds a commencement ceremony to honor its graduates who received degrees during the preceding August through May period. Graduates will be notified about the ceremony and invited to participate. Those graduates receiving a joint degree will receive a diploma that has the seals of both UMCES and UMD on it. Diplomas will be mailed to graduates after commencement, but if you have further questions about the timeline, the [Office of the Registrar](#) can assist with this.

UMCES Alumni

After defending your thesis or dissertation, the UMCES VPE Office will contact you with a brief form to collect alumni information to stay connected. UMCES alumni are located throughout the world, leading their fields in federal positions, at academic institutions, and on the local levels. As an UMCES alumna/alumnus, we encourage you to be in touch with us!

Join in connecting with current students and alums on the MEES Graduate Students Facebook page [here](#).

Transcript Requests

To request transcripts, former UMCES students should contact the Registrar's Office through their respective school/program.

MEES/UMD: <http://www.registrar.umd.edu/current/Policies/Transcripts.html>

FSU: <http://www.frostburg.edu/admin/regoff/records/transcript-requests/>

GPILS/UMB: <https://surfs.umaryland.edu/umbhtml/tranureq.html>

Degree Verification Requests

MEES/UMD: <http://registrar.umd.edu/current/>

FSU: <https://www.frostburg.edu/about-frostburg/Administrative-Offices/registrars-office/Records/Enrollment%20and%20Degree%20Verification.php>

GPILS/UMB: <https://www.umaryland.edu/registrar/forms-and-services/>