

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 reference to the UMCES students regarding policy, resources and services, funding, and program information.

The University of Maryland Center for Environmental Science (UMCES) 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.

## Table of Contents

I - Institutional Overview.....	4
The History of UMCES.....	4
UMCES Mission Statement.....	5
UMCES Unique Educational Experience.....	6
Campus/Laboratory Overview.....	6
Campus Map.....	7
UMCES Organizational Structure.....	8
Accreditation.....	9
II - Key Offices and Contacts.....	9
Mailing Address.....	9
Graduate Programs.....	9
Laboratory Contacts.....	9
Research Fleet.....	11
Graduate Faculty Council.....	11
Faculty Senate.....	11
Social Media.....	11
III - Academic Policies.....	12
IV - Graduate Education Programs.....	12
Departmental Roles.....	12
Marine-Estuarine-Environmental Sciences Program (MEES).....	13
University of Maryland Baltimore – Graduate Program in Life Sciences.....	19
Frostburg State University.....	20
FERPA.....	23

V - Student Activities and Shared Governance .....	24
Graduate Student Council.....	24
MEES Graduate Student Organization (GSO).....	24
Student Advisory Council to MHEC.....	24
USM-wide Student Council .....	25
MEES Colloquium.....	25
Student Orientation .....	25
VI - International Students.....	25
Office of International Student and Scholar Services, UMCP.....	25
Banking and Money .....	26
Area Information.....	26
Tipping (Gratuities) .....	28
US Federal Holidays (dates given for 2016).....	28
Voting Registration .....	28
Point of Contact .....	28
VII - Diversity and Equal Opportunity .....	28
Living Marine Resources Cooperative Science Center.....	28
University System of Maryland Women’s Forum Student Scholarship.....	29
VII - Student Services and Resources.....	29
Experts Guide .....	29
UMCES Website .....	29
Environmental Statistics Collaborative .....	29
Integration and Application Network (IAN).....	30
Library Services .....	30
The National Socio-Environmental Synthesis Center (SESYNC).....	30
Lab Equipment and Technology Available to Students .....	30
Useful Software.....	32
Graduate Student Writing Services.....	33
IX - Student Activities.....	33
Appalachian Laboratory (AL).....	33
Chesapeake Biological Laboratory (CBL).....	34
Horn Point Laboratory (HPL).....	35
SESYNC and UMCES .....	37

X - Campus Logistics/Basics.....	37
Student IDs at University of MD, College Park.....	37
IMET – Badge Access and Parking.....	38
Recycling .....	38
Work Related Travel .....	38
Timesheets.....	38
Interactive Video Network.....	38
Scheduling IVN .....	38
IT .....	39
Email.....	39
Scheduling Vessels and Boats .....	39
Diving .....	40
Dive Requirements.....	40
Dive Committee .....	40
XI - Health and Safety.....	41
Health Related Policies and Services .....	41
HR Contacts.....	41
Family and Medical Leave Act.....	41
Parental Leave and other Family Supports for Staff .....	41
Health Insurance Information.....	41
INOVA Employee Assistance .....	42
Mental Health Resources and Counseling .....	42
Students with Disabilities.....	42
Safety and Security .....	42
Local Contacts .....	42
Campus Safety and Emergency Policies.....	43
e2Campus.....	43
Safety Training .....	43
Sexual Misconduct Policies .....	43
XII - Student Finance and Funding .....	44
Finance .....	44
Tuition .....	<b>Error! Bookmark not defined.</b>
Tuition Remission.....	44

College Park Student Fees .....	44
Graduate Assistant Stipends .....	44
Funding .....	44
MEES Scholarships .....	44
UMCES Presidential Fellowship .....	44
Travel Awards.....	45
UMCES Prospective Student Travel Awards .....	45
Appalachian Laboratory Student Funding .....	45
Chesapeake Biological Laboratory .....	46
Horn Point Laboratory .....	46
Institute for Marine and Environmental Technology .....	47
XIII - Graduation and Beyond.....	47
Joint Degree Information.....	47
Applying for Graduation (MEES) .....	47
Filing dates .....	47
UMCES Commencement.....	47
UMCES Alumni .....	48
Transcript Requests.....	48

## I - Institutional Overview

### The History of UMCES

In 1925, Dr. Reginald Truitt founded the Chesapeake Biological Laboratory in Solomons, an out-growth 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.

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’ 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 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. 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 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 distributed 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. The Center’s faculty advances 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.

UMCES faculty members advise, teach, and serve as mentors to many graduate students enrolled in joint degree programs with USM institutions, particularly through the System-wide graduate programs in Marine- Estuarine-Environmental Sciences (MEES), in which UMCES has a leading role. In addition, UMCES offers post-baccalaureate certificates in specialized areas for professional development. 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 the 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 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. 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. 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 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	

### Chesapeake Biological Laboratory

The Chesapeake Biological Lab 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
Environmental Chemistry and Toxicology	

### 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	Physical Oceanography

### Institute of Marine and Environmental Technology

Located on Baltimore's Inner Harbor, IMET capitalizes on the strengths of the UMCES, the University of MD, Baltimore County and the University of MD, 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  
Marine Bioenergy

Ocean Health and Human Health  
Consortia in Marine Ecosystems

### 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.

### Integration & Application Network (IAN)

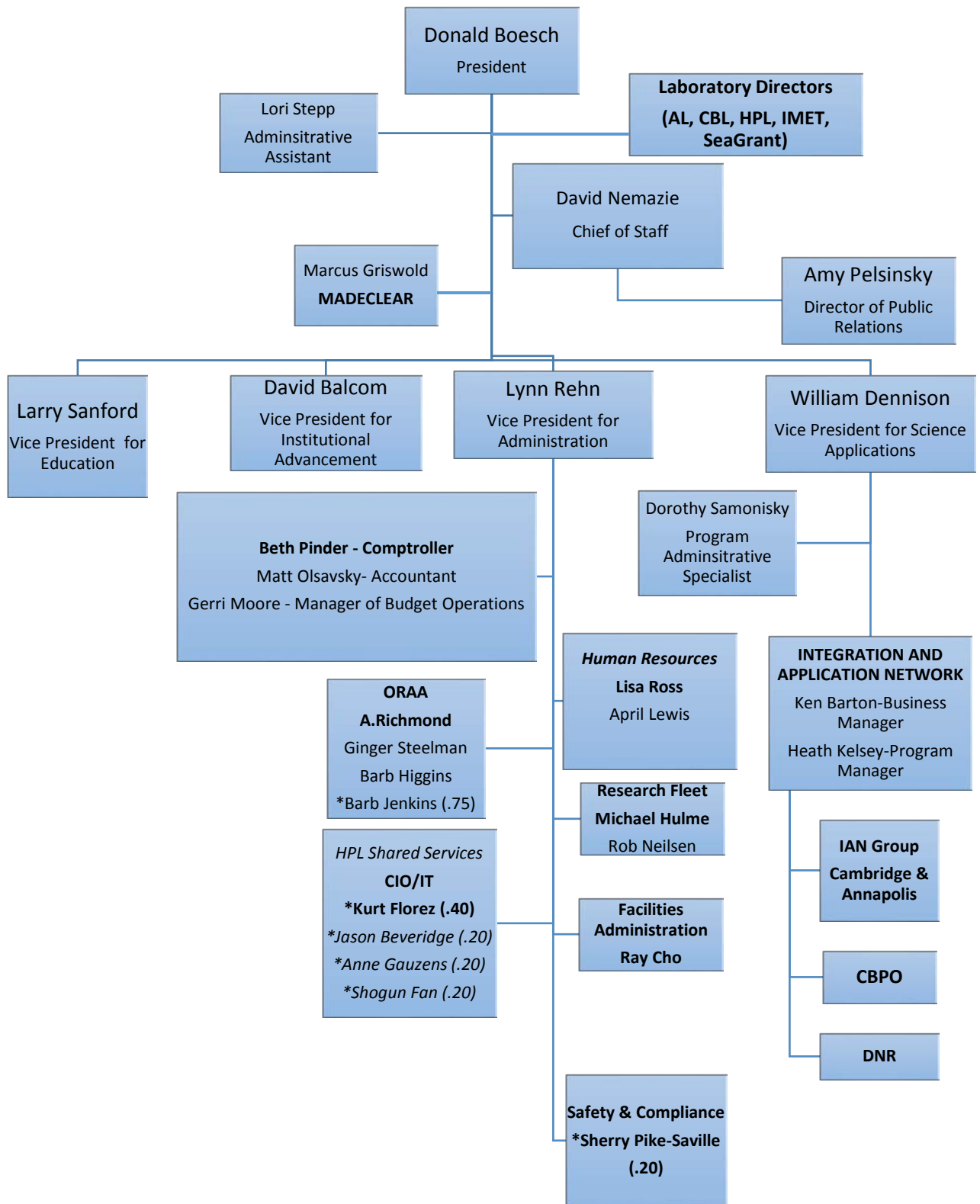
IAN is an initiative of the University of Maryland Center for Environmental Science. IAN's mission is to inspire, manage and produce timely syntheses and assessments on key environmental issues, with a special emphasis on Chesapeake Bay and its watershed. IAN is a network which includes different agencies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

### Campus Map



UMCES is a geographically distributed institution of the University System of Maryland. Its Laboratory Units and Offices are located across the state.

# UMCES Organizational Structure





## Accreditation

UMCES is accredited by the Middle States Commission on Higher Education. UMCES has been committed to graduate education for more than 35 years. Faculty members teach and mentor MS and PhD 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 (UMCP). With authorization of the Board of Regents and Maryland General Assembly in 2012-13, UMCES became a degree-granting institution within the USM. The first MS and PhD degrees with UMCES recognition were jointly awarded with UMCP in May 2014.

## II - Key Offices and Contacts

### Mailing Address

University of Maryland Center for Environmental Science  
P.O. Box 775  
Cambridge, MD 21613

### 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 Toxicology program in the Graduate Program in Life Sciences (GPILS) and 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](mailto:mees@umd.edu)

### UMB - GPILS

Website: <http://lifesciences.umaryland.edu/default.aspx>  
Phone Number: Toxicology Program Coordinator, Linda Horne, 410-706-5422  
Molecular Microbiology & Immunology Coordinator, June Green, 410-706-7126  
Email address: [GPILS-Info@som.umaryland.edu](mailto:GPILS-Info@som.umaryland.edu)

### FSU - Biological Sciences Program

Website: <http://www.frostburg.edu/dept/biol/graduate-programs/>  
Phone: Graduate Program Coordinator, Dr. Sunshine Brosi, 301-687-4213  
E-mail: Dr. Brosi, [slbrosi@frostburg.edu](mailto:slbrosi@frostburg.edu)

### Laboratory Contacts

Appalachian Laboratory  
Lab Director: Dr. Eric Davidson

HR: Heather Johnson  
301-689-7111  
[hjohnson@umces.edu](mailto:hjohnson@umces.edu)  
Fax: 301-689-7200

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

#### Chesapeake Biological Laboratory

Lab Director: Dr. Thomas Miller

HR: Linda Lapera  
410-326-7365  
[lapera@umces.edu](mailto:lapera@umces.edu)  
Fax: 410-326-7257

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

#### Horn Point Laboratory

Lab Director: Dr. Michael Roman

HR: Wennett Jones-Johnson  
410-221-8241  
[wjonesjohnson@umces.edu](mailto:wjonesjohnson@umces.edu)  
Fax: 410-221-8490

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

#### Institute of Marine and Environmental Technology

Lab Director: Dr. Russel Hill

HR: Samantha Horn  
410-234-8839  
[shorn@umces.edu](mailto:shorn@umces.edu)  
Fax: 410-234-8896

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

#### Maryland Sea Grant

Director: Dr. Fredrika Moser

HR: Jeannette Connors  
301-405-6376

[connors@mdsg.umd.edu](mailto:connors@mdsg.umd.edu)

Fax: 301-314-5780

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

#### Integration and Application Network

Vice President for Science Application: Dr. Bill Dennison

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

#### 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 15 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](mailto:hulme@umces.edu)

#### 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 \(III-7.10\)](#).

Website: <http://www.umces.edu/people/GFC-info>

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

Website: [http://www.umces.edu/people/faculty\\_senate](http://www.umces.edu/people/faculty_senate)

Faculty Senate Chair: Dr. David Secor, 410-326-7229, [secor@umces.edu](mailto:secor@umces.edu)

#### Social Media

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 - Academic 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 policy, see this [website](#).

### 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. 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.

#### 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.

##### 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.

##### 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/UMCP 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: <http://www.umces.edu/ed-updates>

Vice President for Education: Dr. Lawrence Sanford, 410-221-8429, [lsanford@umces.edu](mailto:lsanford@umces.edu)

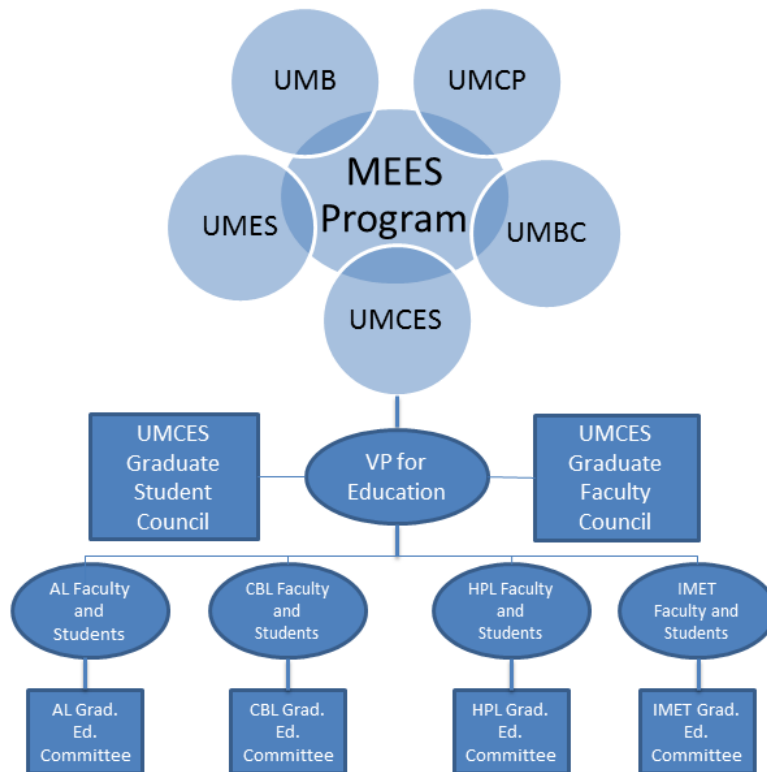
Assistant to the Vice President for Education: Amy Griffin, 410-326-7211, [aqriffin@umces.edu](mailto:aqriffin@umces.edu)

## Marine-Estuarine-Environmental Sciences Program (MEES)

*The following information is derived and summarized from the [MEES Program website](#).*

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, or chemical 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 interactive video (IVN), making them available at several institutional sites, precluding 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 Systems and Technologies

### Application and Admissions

Applicants will be considered for admission and advising on all campuses by faculty associated with an appropriate Foundation Area, based on the applicant's requests. Prospective UMCES students should apply through the [Graduate School at College Park](#).

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 of [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:
  - Official transcripts of all college-level work.
  - A brief essay clearly defining areas of research interest and research objectives (preferably including the Foundation Area of interest). The essay will assist with identification of an academic advisor should the applicant be admissible.
  - A current CV or resume.
  - Three letters of recommendation from persons familiar with the academic work of the applicant.
  - Official Graduate Record Examination Scores
  - International Applicants: 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 UMCP graduate school.

## Curriculum and Course Sequence

### **1. Initial Advisory Committee Meeting and Research Proposal**

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 semester to discuss a student's academic program and early research planning. 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.

### **2. Annual Committee Reports**

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 report must summarize research/coursework to date, include a transcript of academic coursework, and must be signed by all committee members. The required [forms](#) are available on the MEES Program web site.

### **3. Course Work**

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 an independent 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. Of the 24 course credits, 12 of them must be at the 600 level or higher. Each approved plan of study must include the follow four elements:

- Foundation Course (3 credits)
- Professional Development Courses: Applied Environmental Sciences (required for all MEES students) plus two additional professional development courses.
- Elective Courses: Students are free to select from a range of existing MEES courses, bearing in mind the stated Foundation Course pre-requisites. Professional Development courses may qualify as elective courses.
- Issue Study Group Seminars: students must enroll in at least one interdisciplinary, topical seminar.

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 graduate research. Of the 24 course credits, 12 of them must be at the 600 level or higher. Each approved plan of study must include the following four elements:

- Foundation Course (3 credits)
- Professional Development Courses: Applied Environmental Sciences (required for all MEES students) plus two additional professional development courses.
- Elective Courses: Students are free to select from a range of existing MEES courses, bearing in mind the stated Foundation Course pre-requisites. Professional Development courses may qualify as elective courses.
- Issue Study Group Seminars: students must enroll in at least one interdisciplinary, topical seminar.

#### **4. 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 entrance into the program. If vertebrate animals are to be used in the research, the animal use protocol should be filed at this time, before the research is done.

#### **5. Thesis Defense (M.S)**

An Oral Defense of the Thesis, administered according to Graduate School regulations 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 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. An additional copy must be deposited to the UMCES library. The thesis must be prepared based on the guidelines found in the [Electronic Thesis and Dissertation Style Guide](#).

#### **6. Comprehensive Exams (Ph.D.)**

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 fifth 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 AOS 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.

#### **7. Dissertation Proposal Proposal (Ph.D.)**

Following successful completion of the comprehensive examination, and generally within one semester, formal application to candidacy (for PhD students) is submitted following the preparation of a formal dissertation proposal and successful oral defense of that proposal. The Advisory Committee, consisting of at least five members, must receive the formal research proposal at least two weeks prior to the defense date; the MEES Office must be notified of date and committee members at this time. A report of the defense must be filed with the MEES Office within two weeks of the defense. The proposal defense should be held within six semesters of entrance into the MEES program, and **before** the research is completed. Although the format for the proposal may vary depending on topic, it should include a background and review of the literature, a discussion of research progress to date, a hypothesis and statement of objectives, and a complete description of the methodologies to be used. The oral defense provides the opportunity for the student's committee 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 Ph.D. degree. The student passes the proposal defense if there are at least four affirmative votes by the Advisory Committee. If failed, the student may be allowed to re-defend the proposal within 1 year. A second failure will result in cancellation of matriculation.

After the oral defense of the proposal, the signed report, on the dissertation proposal defense form, must be submitted to the MEES Office. Successfully defending the proposal will advance a PhD student to candidacy, which must occur at least six months before the final doctoral defense is to be held. The student must officially apply 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 Registrar's Office at UMCP. Students must be admitted to candidacy at least six months prior to the Defense of the Dissertation (final defense).

### **8. Dissertation Defense (Ph.D)**

A candidate for the Ph.D. degree will present a public seminar on the dissertation research during the academic year in which the degree will be awarded. Students expecting degrees at the end of the summer must be scheduled for presentation before the end of May. The seminar should, under normal circumstances, be given within five weeks in advance of the day of the oral final examination. The student and Advisor will be responsible for initiating arrangements through the MEES Office for the date and advertisement of advertisement of the seminar. The seminar will be open to faculty, students, and other interested parties. The final oral defense of the dissertation is conducted by a committee of the graduate faculty approved by the Dean for Graduate Studies (the Research Advisory Committee plus a Dean's Representative).

Nominations for membership on this committee are submitted on the designated form through the MEES Director by the student's Advisor, by the third week of the semester in which the student expects to complete all requirements, and no later than six weeks, prior to the dissertation defense. The time and place of the examination are established by the chair of the committee. 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. Announcement of the final examination will be made through the MEES Office to all members of the MEES faculty at least 2 weeks prior to the examination.

All final oral examinations are open to all members of the graduate faculty, although only members of the examining committee may question the candidate. After the examination, 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, a final copy of the dissertation must be supplied to the MEES Office, in addition to those required by the Graduate School. An additional copy must be deposited to the UMCES library. The dissertation must be prepared based on the guidelines set forth in the [Electronic Thesis and Dissertation Style Guide](#).

### **MEES Graduate Program Time Limits**

MEES full-time Ph.D. students are limited to a seven-year period in which to graduate. Students must be advanced to candidacy – i.e. pass both the comprehensive examination (written and oral components) and the proposal defense – within six semesters after entering the Ph.D. program. MEES

full-time M.S. students are limited to four years in which to graduate. For both Ph.D. and M.S. students, a one semester extension may be granted at the request of the student's advisory committee and the approval of the MEES Director.

### Part-time Student Status

Students in the MEES Program will be classified as full- or part-time by the MEES Program Office. 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 an 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 will cannot receive UM assistantship or fellowship support.

### 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 approved by the MEES Director.
- After review, MEES will submit its decision to the UMCP Graduate School.

### 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 Areas 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.

### Academic Calendar

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

### 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 eight 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. Our programs place a special emphasis on the importance of translational research. UMCES students in the GPILS program are especially interested in Toxicology and Molecular Microbiology and Immunology.

### Application and Admissions

Perspective 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.

### 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 needs to 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.

### Academic Calendar

The UMB academic calendar is located [here](#). This calendar includes program-specific semester start and end dates, holidays, and some deadlines.

### 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](#).

### Procedural Sequence and Requirements

#### **1. Select Master's Committee**

With assistance of your faculty advisor, you must select a Master's Committee during your first semester. The Master's Committee must consist of your faculty advisor plus at least two other members, one of whom must be a faculty member of FSU.

#### **2. Take Oral Qualifying Examination**

By April 15 (for the fall semester) or November 15 (for the spring semester), your Master's Committee will give you an oral qualifying exam. This tests your general knowledge of the biological sciences and your proposed area of specialization. In the event of substandard performance in all areas, a retest must be taken within 6 months of the first exam. Failure of the second examination or failure to retake the exam within 6 months will result in your termination from the MS program.

### **3. Develop Plan of Study**

After successful completion of the oral qualifying exam, you and your committee will develop a plan of study that is a list of the courses you will take. The plan of study must be approved unanimously and signed by the members of your Master's Committee.

Your plan of study will address four areas:

- a. Undergraduate deficiencies
- b. Core courses and any substitutions of core courses
- c. Elective courses
- d. Any additional requirements that your Master's Committee identifies

The following special requirements apply to the selection of courses:

- a. At least 15 credit hours must be at the 600 level or above.
- b. During your first fall semester, you should register for BIOL 600 (Methods of Research in Biological Sciences) and, for Wildlife/Fisheries Biology, MATH 680 (Research Statistics) or a suitable statistics course.
- c. No more than 6 credits of Special Topics (BIOL 650) and 3 credits of Individual Research (BIOL 699) may be counted as elective courses. Thesis (BIOL 710) credits may not be counted as elective course credits.
- d. No more than 12 credits of Thesis (BIOL 710) may be counted toward the degree.

### **4. Submit Plan of Study.**

The approved Plan of Study form will be forwarded by your major professor to the graduate program coordinator.

### **5. Submit an Approved Thesis Proposal.**

A copy of your written thesis proposal (see Graduate Student Handbook for details) must be signed by all members of your Master's Committee and forwarded to the graduate program coordinator. The thesis proposal must be distributed to your Master's Committee at least 1 week prior to the meeting where that committee will consider approval of your proposal.

### **6. Apply for Degree Candidacy**

Forms for degree candidacy are available through your graduate program coordinator. To be admitted to degree candidacy, you must have completed steps one through five, completed any deficiency courses, and have completed 12 hours of graduate course work, maintaining at least a 3.0 GPA.

### **7. Write and Defend Thesis**

The thesis is reflected in 6 credit hours minimum of Thesis (BIOL 710), although the effort expended on the thesis research may substantially exceed that typically expended on 6 credit hours of standard course work. Specific information regarding the proposal, thesis preparation, binding and distribution can be found in the Graduate Student Handbook available through your graduate program coordinator. You must present a public seminar on your thesis research, once you have written the thesis. After the presentation, you must defend the thesis orally, which entails responding to questions from your Master's Committee concerning your thesis research.

### Program Time Limits

You will be dismissed from the University if you do not complete all your degree requirements within six years from the time of completion of the first graduate course or within six years after having been admitted as a degree-seeking student. The only exception will be if you received an approved extension on the time limit from your graduate program coordinator and the director of the Office of Graduate Services.

### 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 Activities and Shared Governance

### Graduate Student Council

UMCES Policy (III-7.11.VI.B) 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 meeting with the Vice President for Education, and invited participation in meetings of the Graduate Faculty Council.

*Current GSC Representatives from each*

*campus: [http://www.umces.edu/sites/default/files/pdfs/2016UMCESGradStudReps\\_0.pdf](http://www.umces.edu/sites/default/files/pdfs/2016UMCESGradStudReps_0.pdf)*

### 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 well as 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 MEES GSO serves as the legitimate voice of the MEES student body, and to direct student input on issues concerning the MEES Program to the appropriate administrative levels; provide 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](mailto: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/highered/sac/index.asp>*



## 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 a new representative each year to attend the monthly meetings.

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

## 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 is a good place for students to present their research in a familiar 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

All graduate students (new and continuing) are encouraged to present a poster at the Colloquium. The Program requests that graduate students entering the third (MS) or fifth (PhD) 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.

*Poster Guidelines:* <http://mees.umd.edu/colloquium-poster-guidelines/>

## Student Orientation

UMCES hosts a university-wide new student orientation every fall at the Annapolis Office. 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 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.

## VI - International Students

International students may find that making the transition to living and studying in the United States can present challenges and culture shock. UMCES faculty, staff, and current students are here to assist with that transition.

### Office of International Student and Scholar Services, UMCP

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.

## 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 of the UMCES campuses. Note, however, that certain areas might have limited time schedules and/or routes for buses.

AL: <http://gov.allconet.org/act/bus.html>

Annapolis: <http://www.annapolis.gov/government/city-departments/transportation>

CBL: <http://www.co.cal.md.us/residents/transportation/>

HPL: <http://www.mustbus.org/>

IMET: <http://mta.maryland.gov/>

### *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](#).

### *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 insure 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 2016)

Friday, January 1	New Year's Day
Monday, January 18	Birthday of Martin Luther King, Jr.
Monday, February 15	Washington's Birthday
Monday, May 30	Memorial Day
Monday, July 4	Independence Day
Monday, September 5	Labor Day
Monday, October 10	Columbus Day
Friday, November 11	Veterans Day
Thursday, November 24	Thanksgiving Day
Monday, December 26*	Christmas Day

\*The legal public holiday for Christmas Day falls on a Sunday in calendar year 2016. The holiday will be observed by most federal employees on Monday, December 26<sup>th</sup>.

## 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.

## VII - Diversity and Equal Opportunity

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.

## 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: <http://www.umces.edu/imet/lmrcsc>

### [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>

## VII - 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/experts-guide>

### [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.

[Graduate Education](#)

[Student Consumer Information](#)

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

[UMCES News Stories](#)

### [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:* [ian.umces.edu/imagelibrary/](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/](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, etc. Two UMCES campuses, CBL and HPL, have libraries; the major library is located at CBL where a full-time Librarian is available to assist and provide inter-library loans. All UMCES students have access to the full suite of library services and resources.

*Website: Chesapeake Biological Laboratory* <http://www.umces.edu/cbl/library>

*Website: Horn Point Laboratory* <http://www.umces.edu/hpl/hpl-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 Available to Students

#### 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: <http://www.umces.edu/imet/bioanalytical-services-laboratory-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: <http://nasl.cbl.umces.edu/>

#### 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: <http://casif.al.umces.edu/>

#### 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: <http://www.umces.edu/hpl/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: <http://www.hpl.umces.edu/cell-analysis-center/>

#### 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 de-nitrification and system metabolism.

Website: <http://www.hpl.umces.edu/~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

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 telemetry

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.

### 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's 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: [terpware.umd.edu](http://terpware.umd.edu)*

### 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: <http://www.umces.edu/lynda-access-umces>*

*For more information, contact: [hplcahelp@umces.edu](mailto: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: [terpware.umd.edu](http://terpware.umd.edu)*



## 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/UMCP: <http://gradschool.umd.edu/graduate-school-writing-center>
- 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/>

# IX - Student Activities

Each of the Laboratories 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.

## 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.

Website and schedule: <http://www.umces.edu/al/brown-bag-seminar-series>

### 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: <http://www.umces.edu/al/seminar/schedule>

### 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: <http://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)

### American Fisheries Society Student Subunit

CBL hosts the University of Maryland student subunit of the American Fisheries Society. 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. Contact the current president: [emilylil@umces.edu](mailto:emilylil@umces.edu) or see the blog if you are interested in joining: <http://afs-umd.blogspot.com/>

## 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.

Website and schedule: <http://www.umces.edu/cbl/brown-bag>

## 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. 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 before the talk. There is always the opportunity for students to request from the current seminar coordinators special time to meet with the speaker. A social hour with refreshments occurs after the seminar to provide further opportunity to interact with the seminar speaker.

Website and Schedule: <http://www.umces.edu/cbl/cbl-distinguished-scholar-seminar-series>

## Run for Research 5k

Annually, the CBL students host a Run for Research 5k. The course begins and ends at CBL and takes the participants on a morning tour of beautiful Solomons, MD. Funds raised by the Run for Research are used exclusively to provide travel grants to CBL students.

Website: <http://www.umces.edu/cbl/5k-run>

## Outreach Opportunities

CBL has an active outreach program run out of the Visitor Center in the Solomons House. Students can volunteer to help with these activities, and will gain experience speaking to members of the general 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:* <http://www.umces.edu/cbl/visitors-center-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:* <http://www.umces.edu/cbl/outreach-seminars>

## 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.

*Website and Schedule:* <http://www.umces.edu/hpl/seminars-faculty>

## 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 a number of 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. In addition, students are involved as volunteers in development activities as ambassadors for their education and research programs.

*Contact:* [starling@umces.edu](mailto:starling@umces.edu)

### 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.*

*Website and Schedule: <http://www.umces.edu/hpl/student-seminars>*

### Spat Dash

Spat Dash 5k is a run that benefits environmental education at the Horn Point Laboratory. Walkers are welcome. The 5k is a loop over road, grass, gravel, and trails of the beautiful UMCES HPL.

*Website: <https://www.facebook.com/Horn-Point-Laboratory-Spat-Dash-5K-129445917123643/info/?tab=overview>*

### 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 in the town of Cambridge, including businesses, non-profits, and trusts interested in enriching local culture and supporting stewardship of the environment for the middle Eastern Shore. Meeting places change and emails are distributed with information.

### 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](mailto:hplcahelp@umces.edu) to get added to the sports email listserv.

### 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.

### 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.

### 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>

## X - Campus Logistics/Basics

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

### Student IDs at University of MD, College Park

UMCES students in the MEES Program have the option of obtaining a UMCP student ID card. This card is issued solely for the purpose of accessing programs and services administered by the University of Maryland, College Park. 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

To have access to the building and laboratories, all IMET students are required to complete the Columbus Center [Badge Access Authorization Form](#).

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. To request a parking space, students must fill out and submit this [form](#).

## Recycling

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

## 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.

## Timesheets

Students who are graduate assistants or otherwise employed by UMCES may access their time/leave records as well as their annual, sick, and personal leave balances at [www.timesheets.umd.edu](http://www.timesheets.umd.edu) or [www.ares.umd.edu](http://www.ares.umd.edu). Timesheets are due on a bi-weekly basis. Student assistants or employees must fill out their timesheets and direct them to their supervisor for approval.

## Interactive Video Network

IVN, the University System of Maryland's Interactive Video Network, provides infrastructure for voice and video conferencing for the University System community and other educational institutions in the State of Maryland. 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 are offered over IVN.

## 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: [hjohnson@umces.edu](mailto:hjohnson@umces.edu)
- CBL: [events@cbl.umces.edu](mailto:events@cbl.umces.edu)
- HPL: <http://www.umces.edu/hpl/hpl-ivn>
- IMET: <http://www.umces.edu/content/columbus-center-roomivn-reservation-request>

## 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/pdfs/UMCES%20Computer%20Use%20Policy.pdf>

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

- AL: [eafarris@umces.edu](mailto:eafarris@umces.edu)
- CBL: [feedback@cbl.umces.edu](mailto:feedback@cbl.umces.edu)
- HPL: [hplcahelp@umces.edu](mailto:hplcahelp@umces.edu)
- IMET:

## 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 during orientation.

## Scheduling Vessels and Boats

The UMCES Research Fleet provides scientists with access to the Chesapeake Bay and its tributaries. The Research Fleet Office is housed at the Chesapeake Biological Laboratory in Solomons. The research fleet consists of 16 vessels stationed at the Chesapeake Biological Laboratory and the Horn Point Laboratory.

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 completing a [Request for Research Vessel Time](#) form or by [e-mail](#) following the format of this form. The current cruise and vessel schedules are available [here](#).

### Diving

Faculty and students at the University of Maryland Center for Environmental Science may use scuba diving as a scientific tool. Each laboratory within UMCES has its own diving committee overseen by the UMCES Dive Board. Therefore, there is reciprocity in diver qualifications among Labs. The UMCES Diving Program is in the process of becoming affiliated with the American Association of Underwater Scientists (AAUS), which will give UMCES diving reciprocity with other institutions. The guidelines we follow can be found in the UMCES Diving Manual.

To become an UMCES Scientific Diver, a series of requirements (below) must be fulfilled. Please contact the Head of the Diving Committee at your Lab and/or the UMCES Diving Safety Officer. After becoming an UMCES diver, the requirements must be updated on a regular basis.

### Dive Requirements

- Medical approval copy of your C-card
- Proof of cardiopulmonary resuscitation (CPR) training (contact your nearest Red Cross chapter)
- Proof of emergency oxygen administration training
- Proof of first aid for diving accidents training
- Proof of hazardous materials training
- If you are planning to use your own scuba equipment (tank, regulator, BC, dry suit), please also provide the receipt of when it was last serviced.
- Proof of Divers Alert Network (DAN) insurance.

### Dive Committee

Horn Point Lab Donald Meritt 410.221.8475 dmeritt@umces.edu	Center Administration David Nemazie, Chair 410.221.2006 nemazie@umces.edu	Dive Safety Officer Les Burke 301.405.3960 -- 202.489.6340 (Cell) lesburke@umd.edu
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Website with dive resources and forms: <http://www.umces.edu/about/dive-information-umces>



## XI - 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

<b>Center Administration</b> Lisa A. Ross, PHR / Director, Human Resources / 410-221-2017 / <a href="mailto:lross@umces.edu">lross@umces.edu</a>
<b>Appalachian Laboratory</b> Heather Johnson / 301-689-7111 / <a href="mailto:hjohnson@umces.edu">hjohnson@umces.edu</a>
<b>Chesapeake Biological Laboratory</b> Linda Lopera / 410-326-7365 / <a href="mailto:lopera@umces.edu">lopera@umces.edu</a>
<b>Horn Point Laboratory</b> Wennett Jones-Johnson / 410-221-8241 / <a href="mailto:wjonesjohnson@umces.edu">wjonesjohnson@umces.edu</a>
<b>Institute for Marine and Environmental Technology</b> Samantha Horn / 410-234-8839 / <a href="mailto:shorn@umces.edu">shorn@umces.edu</a>

#### 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: <http://www.umces.edu/about/health-benefits>

### INOVA Employee Assistance

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.

To gain access, request the INOVA member ID and password from your Lab HR contact.

Website: [www.inova.org/eap](http://www.inova.org/eap)

### Mental Health Resources and Counseling

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.

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

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

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

In an emergency, dial 911 or visit your nearest emergency room. Health insurance plans now must cover mental health services. Accordingly, even if you do not have a University of Maryland benefits plan, your insurance should cover mental health counseling and/or psychiatry from providers of your choice. You can contact your mental health provider (counselor or psychiatrist) to verify insurance coverage, or check your provider directory on your insurance website to see if a provider is listed.

### Students with Disabilities

UMCES is committed to creating and maintaining a workplace accessible to all students, regardless of physical or mental disabilities, and will insure 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:

<b>Appalachian Laboratory</b> Frostburg State University Police / 301-687-4222 (emergency) or 301-687-4223 (non-emergency)
<b>Chesapeake Biological Laboratory</b> Calvert County Sheriff's Office / 410-535-2800
<b>Horn Point Laboratory</b>

Dorchester County Sheriff's Office/ 410-228-4141
<b>Institute for Marine and Environmental Technology</b>
University of MD Baltimore Police / 410-706-6882

*For all emergencies, dial 911*

### 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 \(HPL\)](#)

### e2Campus

e2Campus 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 e2 Campus. Each student or employee must register to be included in the system. It is UMCES policy that all personnel, including students, must register.

Website: <http://www.umces.edu/e2campus>

### 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 resources 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/VI160.pdf>

## XII - Student Finance and Funding

UMCES graduate students have financial responsibilities. They also have several sources of financial support to assist them with living expenses and with funding to enhance their research experiences.

### Finance

#### Tuition Remission

Many students are eligible for tuition remission. Tuition remission covers the cost of class credits for the student and is paid 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. Students at UMCES Labs can have these fees waived if they agree to not use the services.

#### Graduate Assistant Stipends

For current information regarding Graduate Assistant Stipend Levels, see this [website](#).

### Funding

#### MEES Scholarships

**Reid Evans Menzer Memorial Summer Research Fellowship:** Dr. Robert Menzer, MEES Founding Director, 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 awardees discretion.

Website with additional information: <http://mees.umd.edu/menzer-fellowship-details>

**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>

#### UMCES Presidential Fellowship

Annually, the University of Maryland Center for Environmental Science offers a merit-based Presidential Fellowship for up to three new, entering students. This fellowship is designed to support recruitment of outstanding Ph.D. students into the UMCES graduate programs. Up to three years stipend, health benefits, and tuition are covered. Students applying for the Marine-Estuarine-Environmental Sciences (MEES) Graduate Program or the Graduate Program in Life Science (GPILS) are eligible to apply.

Website: <http://www.umces.edu/education/graduate/fellowships>

### Travel Awards

The UMCP 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>

### UMCES Prospective Student Travel Awards

Upon 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](#).

### 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 on the basis of 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 Lab. The TA

positions are awarded by deliberation of the AL Graduate Education Committee. AL students have also gained experience by teaching at College Park, Frostburg State University, and Allegany College.

### Chesapeake Biological Laboratory

#### *Student Fellowship Opportunities*

The Graduate Education Committee (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.

- Drach-Mellody Navigator Award. Annual up to \$5000 (currently) for two years of funding to support graduate student research. Open to all CBL students. These funds may not be used for salary or travel for conferences.
- Ruth Mathes Fellowship. Annual up to \$2500 (currently) for two years of funding to support graduate student research. Open to all CBL students. These funds may not be used for salary or travel for conferences.

#### *Travel Awards*

The CBL Graduate Education Committee travel awards are offered three times a year to help defray costs of presenting at a conference. There is no limit to the number of times a student can apply or receive funds. Awards are \$500 for domestic travel and \$750 for international travel. Presentation of the research in a Student “Brown Bag” seminar is required for students who receive the funds.

### Horn Point Laboratory

#### *Horn Point Assistantships*

The Horn Point Laboratory offers, on a competitive basis, several assistantships to incoming students. These are awarded on a competitive basis. 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 students support.

#### *Teaching Assistantships*

HPL offers several assistantships each semester to assist with classes taught at the Lab. These positions are awarded by the Graduate Education Committee. Students apply, with a letter of support from their advisor. The Graduate Education Committee selects the Teaching Fellows.

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 apply, along with a letter of support by 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.

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.

#### *Graduate Student Fellowships*

Each year, from 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.

## 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 (UMCP). UMCES students in MEES and their advisors may request the joint degree. To request award of a joint degree, the student and advisor must complete and submit [this form](#), with its required signatures. 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 UMCP 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/UMCP: <http://gradschool.umd.edu/calendar/deadlines/academic-deadlines>

FSU: <http://www.frostburg.edu/fsu/assets/File/grad/appForGraduation.pdf>

GPILS/UMB: <https://graduate.umaryland.edu/Current-Students/Academic-Calendar-and-Deadlines/>

### UMCES Commencement

Each May, UMCES holds a commencement ceremony to honor its graduates who received degrees in the period, August – May. 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 UMCP on it. Diplomas will be mailed to graduates and should arrive within eight weeks of the graduation ceremony.

## UMCES Alumni

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!

## Transcript Requests

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

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

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

GPILS/UMB: <http://www.umaryland.edu/registrar/transcripts-and-certifications/>