

# Environmental and Molecular Toxicology Department Graduate Student Handbook Version: September, 2022 v0

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We wish you success and hope that your time with us in Toxicology is rewarding, both academically and personally. You are responsible for reading this handbook thoroughly, but please realize that it is not all-inclusive and department and OSU policies are subject to revisions.

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## 1. GENERAL CONTACT INFORMATION

The Environmental and Molecular Toxicology Department main office is located at 1007 Ag Life Sciences.

Mailing address:  
 Department of Environmental and Molecular Toxicology  
 Oregon State University  
 1007 Ag Life Sciences Building  
 Corvallis, OR 97331

Phone: 541.737.3791  
 FAX: 541.737.0497  
 Email: [emt@oregonstate.edu](mailto:emt@oregonstate.edu)

### 1.1. Program Specific Contacts

Head of Department:	Kim Anderson	<a href="mailto:kim.anderson@oregonstate.edu">kim.anderson@oregonstate.edu</a>	541.737.8501
Director of Academic Programs	Susan Tilton	<a href="mailto:susan.tilton@oregonstate.edu">susan.tilton@oregonstate.edu</a>	541.737.1740
Deputy Director of Academic Programs	Lisa Truong	<a href="mailto:lisa.truong@oregonstate.edu">lisa.truong@oregonstate.edu</a>	541.737.7091
Graduate Program Coordinator	Mary Mucia	<a href="mailto:mary.mucia@oregonstate.edu">mary.mucia@oregonstate.edu</a>	541.737.9079
Office Manager/Employment	Cheyenne Pozar	<a href="mailto:cheyenne.pozar@oregonstate.edu">cheyenne.pozar@oregonstate.edu</a>	541.737.1762

### 1.2. Important Websites

Environmental & Molecular Dept. <https://emt.oregonstate.edu/>  
 Graduate School\* <http://gradschool.oregonstate.edu/>  
 Online Grad School Forms <https://publicsafety.oregonstate.edu/>  
 Academic Regulations <https://catalog.oregonstate.edu/regulations/>  
 Academic Calendar <https://registrar.oregonstate.edu/osu-academic-calendar>  
 OSU Course Catalog <http://catalog.oregonstate.edu/>  
 Department Safety <https://emt.oregonstate.edu/emt/safety-information/>

\* The Graduate School at OSU assures quality and consistent interpretation of Graduate Council policies related to graduate education across all programs. The [OSU Catalog](#) is the official source for information regarding OSU graduate education policy and procedures. It is the student's responsibility to refer to the catalog for this information. The Graduate School supports students throughout the academic lifecycle from admissions to degree completion and in addition, it offers an array of professional development opportunities <https://gradschool.oregonstate.edu/current-students/> specific to the success of graduate students.

### 1.3. University Emergency Contacts

OSU is dedicated to providing a safe and secure learning and living environment for its community members. The Department of Public Safety <https://publicsafety.oregonstate.edu/> provides resources, information, emergency phone numbers, and protocols for maintaining personal safety. Sign up for **OSU Alerts** <https://oregonstate.edu/alerts/osu-alert-portal> to get timely messages delivered right to your phone or inbox regarding university closures and other emergency situations.

## 2. ARRIVAL CHECKLIST

A few things to do when you first arrive at OSU:

- Get a University ID Card.** The OSU ID Card is the official identification card for students, faculty and staff. It functions as a meal card, library card and more. The ID Center is located in Memorial Union room 103. See [https://fa.oregonstate.edu/business-affairs/id-center\\_for\\_additional\\_information](https://fa.oregonstate.edu/business-affairs/id-center_for_additional_information). You will need to be registered for classes before getting your ID card.
  - Sign Up for Your Email Account.** Set up your ONID (OSU) email as soon as possible. Instructions are available at <https://onid.oregonstate.edu/>. ONID is the university's official email addressing system and you will miss crucial emails if you do not activate this account.
  - Meet with your Major or Temporary Advisor.** It is important to meet with an advisor before registering for your classes and to discuss objectives for your first year in the program. You will meet quarterly with the Director or Deputy Director of Academic Programs during your first year until identifying and joining a research group.
  - Register for Classes.** You must register for classes before the first day of the term to avoid late fees. You will register during Orientation Week with the help of your temporary advisor.
  - Get an office assignment.** First-year students have a desk available in ALS 1151.
  - Pick up your keys.** Your mentor will need to authorize the keys by contacting Mary Mucia. After the Key Request has been submitted, you will receive an email from the Key Shop. See additional information below under Facilities.
  - Make sure you have an after-hours permit.** After-Hours permits are distributed by mentors or lab managers after they submit a list of names to the EMT Office. You will need this in the Ag Life Sciences buildings at night or on weekends.
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## 3. FACILITIES

### 3.1. Transportation info links

- Student parking permit <https://transportation.oregonstate.edu/parking>
- Bicycle security <https://publicsafety.oregonstate.edu/services/bike-information>
- Free campus shuttle bus <https://transportation.oregonstate.edu/riding-beaver-bus>  
Corvallis transit buses (note: CTS buses are fare-free in Corvallis)  
<http://www.corvallisoregon.gov/index.aspx?page=167>
- Saferide <http://asosu.oregonstate.edu/saferide>

### 3.2. Mail

Campus and U.S. mail can be sent from the EMT Office. There is an Out-Box in the Copier Room. You may have personal mail delivered to this office until you establish a permanent mail address. The mail address is on the first page of this guide. Incoming mail will be placed in your mailbox. Outgoing U.S. mail with postage already applied can be sent from the EMT Office. Graduate student mailboxes are located in the Mail Room (1009 Ag Life Sciences, adjacent to the Copier Room). Both campus mail and U.S. mail are delivered to your mailbox along with department notices.

### **3.3. Making Copies**

A Copy machines is located in ALS 1007E. The EMT Office staff can provide assistance when needed. Copies for lab use or meetings are free; personal copies are not allowed on department copiers. The photocopier has a scanning feature and can send digital copies (in PDF, JPG or other formats) directly to your email address.

### **3.4. Fax Machine**

The fax machine in the EMT Office may be used during office hours. OSU-related FAX are free. The fax number is 541-737-0497. Please ask the office staff for details about receiving/sending international FAX. The department does not allow personal faxes to be sent or received from this machine.

### **3.5. Campus Phones**

University phone numbers have the prefix 737 or 713. When calling from one campus telephone to another, dial only the last five digits of the phone number. When calling a local number, you must first dial 9 to get an outside line, then the area code and number. You will need an authorization code or personal calling card number to make long distance calls. Check with your major advisor for an authorization number.

### **3.6. Student Offices**

Your major advisor or the department will provide office space during your graduate studies at OSU. Office space is generally shared with other students. You may receive temporary space before you select a major advisor.

There is a refrigerator and microwave available for general use in ALS 1151.

### **3.7. Keys**

Keys must be requested from your major advisor. ((ADD EMT Key Request Form to website)) When you receive an email from the Key Shop, take it to the Key Shop located in the University ID Center in the Memorial Union. Key Shop hours are currently 9:00am–3:00 pm.

### **3.8. Supplies**

The EMT Office provides basic supplies (paper, pencils, pens, tape, erasers, whiteboard markers, etc.) as needed for seminars, meetings, and events at no charge.

### **3.9. Computers**

EMT recognizes and supports OSU's Network Engineering Acceptable Use Policy. <http://oregonstate.edu/aup.htm> All student, staff and faculty are responsible for adhering to these policies and those of the College of Agricultural Sciences:

<https://agsci.oregonstate.edu/mycas/cas-policies-and-procedures>

Computer support is provided at the Roots helpdesk: [roots.support@oregonstate.edu](mailto:roots.support@oregonstate.edu) Please report all computer and networking questions and problems directly to Roots. Roots has posted a FAQ page at <https://support.roots.oregonstate.edu/roots/faqs>

### **3.10. Printers**

A Department printer is available and printers are also available at various locations on campus. Report any department printer problems to the EMT Office. Student Multimedia Services at <https://is.oregonstate.edu/sms> provides many useful printing services such as free large-format (poster)

printing and thesis printing free. Please do not use printers as copy machines. Large print jobs should be sent to campus Mailing and Printing Services (see EMT Office staff for instructions).

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## **4. SECURITY AND SAFETY**

### **4.1. Building Security**

You are responsible for closing and locking all doors and windows when leaving rooms you have been using. Special care must be taken in this regard when leaving the building at the end of the day or after regular hours. Fire doors and outside doors may not be propped open at any time.

Be aware that university buildings are open to the public. Offices and laboratories with open or unlocked doors are not secure from theft. Be sure to keep all your portable valuable items in locked rooms or cabinets.

Do not let unauthorized persons in the building after hours! If an individual belongs in the building, they should already have a key. Do not prop open outside doors! Keep your after-hours permit with you when you are in the building in the evening or on weekends. If Security comes through the building and you do not have your after-hours permit, you will be required to leave the building. You should receive a permit from your major advisor or lab manager, and you will need to renew it annually.

### **4.2. Laboratory and General Safety**

The department has a safety liaison, Dr. Andy Annalora, and a website:

<https://emt.oregonstate.edu/emt/safety-information>

OSU contacts and comprehensive safety policy information are available at:

<https://ehs.oregonstate.edu/>

Safety-related issues should be reported to Dr. Annalora, Dr. Anderson or to the building manager, Chris Sullivan. Laboratory safety rules are posted throughout the ALS building and labs.

A laboratory safety workshop is offered during orientation week for incoming graduate students and additional lab safety workshops or seminars may be offered during the year by special arrangement.

### **4.3. Insurance**

GRAs and students on hourly wages are covered by the State Accident Insurance Fund (SAIF) while involved in OSU work. This insurance covers you while working on campus and if you are off campus on OSU business in state vehicles. The coverage includes medical care for job-related accidents. In case of death, there are certain benefits to survivors. This insurance does not cover non-work-related accidents or illnesses. Students not on the OSU payroll are not covered by SAIF. This means that any such student injured in any laboratory, state vehicle, research vessel, etc., generally has no recourse to state insurance.

All GRAs are required to have health insurance. PacificSource Insurance is the OSU provider, and offers comprehensive medical, dental and vision plans. All GRAs must either enroll in PacificSource or provide proof of comparable coverage. OSU pays 89% of the graduate student's and dependents' monthly premiums and 50% of administration fees. The remaining premium costs will be deducted directly from your paycheck. If you have a break in service, you may be able to continue health insurance with either Graduate Assistant Summer Insurance or the COBRA Continuation Plan.

<https://studenthealth.oregonstate.edu/insurance>

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## 5. OSU EMPLOYMENT

### 5.1. Assistantships

If you are appointed on an assistantship at 0.30 FTE or more during a term, tuition and other fees will be automatically billed to your account and then paid as indicated by the Department of Environmental and Molecular Toxicology after the second week of classes (tuition at 100%, other fees at 90%). However, you must pay certain of your non-instructional fees. Each term your assistantship is in effect, you will be required to carry health insurance.

See the following links for information on sick leave (through CGE), substitution pay, and OSU's timesheet system (Empcenter):

<http://mytime.oregonstate.edu/grad-student-training>  
<https://www.cge6069.org/>

### 5.2. Taxes

Salaries paid to graduate assistants are taxable income. However, the tuition remission accompanying a graduate assistantship is not taxable income. Scholarships and fellowship incomes are also taxable on the portion not spent for tuition or course-required educational supplies and fees. When completing a Withholding Allowance Certificate (IRS W4 form), be sure to have a sufficient amount withheld from your monthly check to match your tax liability. There may be IRS penalties for insufficient tax withholding. International students should keep careful records; most non-resident aliens cannot take the standard income tax deduction and are allowed only one exemption and actual itemized deductions. Taxation agreements between the US and certain foreign countries may result in different tax requirements. More information on this may be available via the International Student Advising and Services (ISAS):

<https://fa.oregonstate.edu/business-affairs/payroll/NRA-tax-resources>

### 5.3. Travel

Participation at professional meetings can be one of the best professional development activities during your graduate studies. You can present your research results to a broader audience, gain valuable feedback, network with scholars in your discipline(s), and polish your public speaking skills and confidence.

All OSU travel booking and reimbursements are processed through Concur. Concur can be accessed through your My Oregon State Dashboard. There are a lot of resources available, so it's easiest to do a search.

The OSU Travel Office <https://fa.oregonstate.edu/travel-and-expense> offers additional information, including travel policies and training videos.

### 5.4. Tenure of Support

Graduate Teaching (GTA) and Research Assistantships (GRA) are awarded by EMT to graduate students with superior records in their undergraduate and/or graduate work. Ph.D. students are typically provided full financial support and generally will be appointed at a 0.49 FTE and **receive a stipend to cover living expenses with tuition and fee remission**. Financial support of MS students is at the discretion of the major professor. The 0.49 FTE GRA or GTA appointments are considered "full-time". It is expected that full-time students pursuing a thesis M.S. or Ph.D. degree will spend their time during normal working hours in residence at the university, *plus as much additional time as their research and classroom activities require*.

Financial support to pursue an advanced degree is a privilege, and is dependent upon the student maintaining good academic standing and adequate progress in reaching research and programmatic goals. The time and effort required for maintaining adequate progress will differ among individual students. Students should maintain good lines of communication with their major professor and Thesis/Dissertation Committee to ensure

realistic goals are set and adequate progress can be maintained.

### *Schedule and Release Time*

Any release time must be coordinated with, and approved by the major professor. All major professors should be given a copy of the student's schedule at the beginning of each semester (including summer term), and a local address and phone number (home and/or work) where they may be reached. Students will be provided keys to laboratories and work areas and after-hour permits so that they can access areas after hours. Students should check their mailbox and email account daily for mail and messages. Students are expected to work during term breaks and summer terms in their selected laboratories and should coordinate with their major professor regarding their schedules. Students must have approval from their major professor for time off during the period of their appointment, except for official University Holidays.

### *Outside Employment*

Full-time students receiving financial aid through EMT, the NIEHS Training Grant, the Superfund Basic Research Program, or other departmental, college or university sources are generally not permitted to have outside employment. This includes students with fellowships or scholarships paid directly to the student. It is expected students will devote all their time to their studies and research projects. In special cases, full-time students may petition to have a work schedule and hours spent in outside employment approved at the beginning of each semester by the Director of Academic Programs and by their major professor. Engaging in outside employment without approval can be grounds for dismissal from the Program.

## **5.5. Coalition of Graduate Employees (CGE)**

CGE is a local, member-run labor union recognized by OSU and the State of Oregon as the exclusive representative for OSU graduate assistants on all matters involving wages, benefits, and working conditions. CGE is affiliated with the American Federation of Teachers (AFT). All OSU graduate students are eligible to join CGE. All CGE members have access to various discounts and insurance provided through AFT. CGE offers two levels of membership. Associate membership is optional. Membership forms are available by contacting CGE. The employment rights and benefits of graduate assistants are contained in a contract CGE negotiates with OSU.

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## **6. INTERNATIONAL STUDENTS**

Additional conditions and regulations govern your stay in the U.S. if you are here on a non-immigrant student visa (F-1 or J-1 visa). It is important to follow these conditions and regulations; failure to do so may have serious consequences. As long as you follow all of the regulations and meet all of the conditions during your stay, your immigration status remains in effect. If you neglect your immigration responsibilities, your visa could be terminated.

<https://internationalservices.oregonstate.edu/students>

OSU's International Affairs has international student advisors who know immigration regulations, maintain students' immigration records, and can advise students on appropriate processes and procedures related to immigration. To schedule an appointment with an advisor, call 541-737- 6310, email [isas.advisor@oregonstate.edu](mailto:isas.advisor@oregonstate.edu) or visit their office in University Plaza, Suite 130. Additional information on the topics covered below, and other important topics, is available by visiting the International Affairs office or the website listed above.

International students on a student visa are required to purchase health insurance that meets both the U.S. government and OSU minimum standards for your visa category. PacificSource should meet these requirements.

As a fully-admitted F-1 and J-1 student, you may engage in part-time employment (up to 20 hours per week) on the OSU campus while classes are in session. You may work on campus full time (more than 20 hours per week) between terms and during the summer as long as you plan to be a full-time student the following term. This includes serving as a graduate teaching or research assistant. F-1 students do not

need authorization from International Affairs for on-campus employment, but J-1 students do need authorization from International Affairs.

You may not participate in any type of off-campus employment unless authorized by ISAS and/or U.S. Citizenship and Immigration Services (USCIS). Internships which are required or integral to your program of study must be authorized by International Affairs prior to the internship start date. If you are interested in off-campus employment, you should make an appointment with an ISAS advisor before accepting an employment offer.

You will need a social security number (SSN) to work on campus, application procedures are available at:

<https://internationalservices.oregonstate.edu/students/working-here/social-security-information>

If you are on a GRA appointment, you can use a copy of your appointment letter as the letter of offer. You may sign up for payroll immediately, but you will need your social security card or receipt from the Social Security Administration in order to complete your payroll paperwork.

If you plan to leave the U.S. and return for any reason, see an ISAS advisor well in advance of your departure. Depending on your country of citizenship, you may be required to get entry visas for the place(s) to which you will be traveling. In addition, your visa to re-enter the U.S. must be valid at the time you plan to return. Allow enough time to take care of all these details before you leave.

You must update your address through your MyOSU account within 10 days of a change of address. This is a federal regulation.

You must maintain full-time enrollment throughout your program of study in the U.S. and enroll for (and complete) at least 9 credits each term during the academic year to satisfy immigration requirements. If you have an assistantship, you must register for 12 credits each term you hold the assistantship. Audited courses do not count toward full-time enrollment for OSU graduate students. Only 3 credits of online or e-campus credits may count toward the full-time enrollment requirement.

If you have serious academic or medical concerns, you will need to make an appointment with an International Affairs advisor to discuss possible exceptions prior to dropping below full-time status. When you have completed all required coursework and all requirements listed on your specific graduate program of study you may apply for a "Reduced Enrollment." Reduced Enrollment may be approved up to four terms for a Master's student or six terms for a PhD student.

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## 7. ACADEMIC AND SUPPORT RESOURCES

OSU offers a wide array of academic and support resources designed to meet graduate student needs. Some of the more commonly used resources are included below. For a more complete list, please visit the Graduate School's Student Resources <https://gradschool.oregonstate.edu/current-students/resources>

**Campus Safety** <https://publicsafety.oregonstate.edu/> – Emergency phone numbers, university alerts

**Career Development Center** <https://career.oregonstate.edu/>– Resume/CV, networking, job search strategies

**Childcare and Family Resources** – <https://familyresources.oregonstate.edu/> University child care centers, child care assistance

**Counseling and Psychological Services (CAPS)** <https://counseling.oregonstate.edu/> – Individual and group counseling

**Cultural Resource Centers** <https://dce.oregonstate.edu/cultural-resource-centers> – Cultural based community centers, social support



**Disability Access Services (DAS)** <http://ds.oregonstate.edu/home/> – Academic accommodations

**Equal Opportunity and Access (EOA)** <https://eoa.oregonstate.edu/> – Employment accommodations, discrimination or bias response

**Financing your education** <https://gradschool.oregonstate.edu/finance> – Funding options and information, graduate awards

**Graduate Student Success Center (GSSC)** <https://blogs.oregonstate.edu/gradsuccess/graduate-student-success-center/> – Lounge, study space, printing, reservable meeting rooms

**Graduate Writing Center** <https://gradschool.oregonstate.edu/graduate-writing-center> – Writing workshops, groups, and 1:1 writing coaching

**Health Insurance** <https://gradschool.oregonstate.edu/resource/883> – Plans for graduate students and graduate employees

**Human Services Resource Center (HSRC)** <https://studentlife.oregonstate.edu/hsrc> – Food pantry, housing and food stamp assistance

**Institutional Review Board (IRB)** <https://research.oregonstate.edu/irb> – Review for human subjects research

**International Services** <https://internationalservices.oregonstate.edu/IEEV/visas-and-immigration> – Visa and immigration advising

**Ombuds Conflict Management Services** <https://ombuds.oregonstate.edu/> – Informal, impartial conflict resolution advising

**Recreational Sports** <https://recsports.oregonstate.edu/> – Dixon Recreation Center, intramural sports

**Statistics Consulting Service** <https://gradschool.oregonstate.edu/resource/5926> – Graduate student research statistical advising

**Student Health Services (SHS)** <https://studenthealth.oregonstate.edu/> – Clinic and pharmacy

**Student Multimedia Services (SMS)** <https://is.oregonstate.edu/td-service/student-multimedia-service> – Poster printing, equipment and laptop loans

**Transportation Alternatives** <https://transportation.oregonstate.edu/START> – Bike, bus, SafeRide

**Transportation and Parking Services (TAPS)** <https://transportation.oregonstate.edu/parking> – Parking permits, maps

**Valley Library** <https://library.oregonstate.edu/> – Reference and research assistance, study spaces, research tools

**GCUT** <https://gradschool.oregonstate.edu/graduate-certificate-college-and-university-teaching> – Graduate Certificate in College & University Teaching

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## 8. ACADEMIC REGULATIONS

### 8.1. Registration

The OSU Schedule of Classes is available online and contains academic regulations and registration procedures that apply to all students in the university, as well as the final examination week schedule. The online Course Catalog <https://catalog.oregonstate.edu/> is the source for up-to-date changes for the current and immediately upcoming term. It is your responsibility to register for the appropriate number of credits that may be required for any funding eligibility and/or to meet the requirements of

the continuous enrollment policy. Problems arising from registration procedures, such as late registration, adding or withdrawing from courses after deadlines, or late changes from letter or S/U grading are resolved through the Petition for Late Change of Registration Form <https://registrar.oregonstate.edu/late-registration> filed with the Graduate School. A late registration fee may be applied. Students are responsible for staying current on registration requirements that may supersede the Graduate School requirements (i.e., international, financial aid, veteran's). International students who are concerned with regulations surrounding registration should also see the "International Students" section on p. 7.

Registration requirements for graduate students are established by the Registrar and the Graduate School. "Full-time" status means you have registered for 9–16 credits in a term; "part-time" status means you have registered for less than 9 credits in a term. The EMT Department strongly advises all graduate students, except in very special circumstances, to register for at least 12 credits every term. You must pay additional fees if granted an exception to register for more than 16 credits. You do not receive a letter grade for thesis credits, and you can register for as many thesis credits as needed to make a total of 12 credits for the term.

For regular academic year terms where you are appointed as a GRA, you *must* register for at least 12 credits (Summer Term registration depends on your situation, typically between 3-5 credits are required, guidance will be offered during spring). This requirement includes international students.

Degree-seeking students must register for at least 3 credits in every term they enroll at OSU. Students must be enrolled (and thus registered for at least 3 credits) during the term of their thesis defense. Contact the Graduate School if you may wish to schedule a thesis defense during a term break to avoid paying tuition for an additional term.

## **8.2. Continuous Enrollment**

All graduate students enrolled in a degree program must register continuously for a minimum of 3 graduate credits each term (fall, winter, and spring terms) until all degree requirements are met, regardless of student's location. Students on approved leave are exempt from the continuous enrollment policy for the term(s) they are on leave. Graduate students who use facilities or faculty/staff time during summer session are required to register for a minimum of 3 credits during the summer session. Students defending in the summer term are required to register for a minimum of 3 graduate credits.

Students may appeal the provisions of the continuous graduate enrollment policy if extraordinary circumstances arise by submitting a detailed request in writing to the Dean of the Graduate School. Scheduling difficulties related to the preliminary oral exam or the final oral exam are not considered an extraordinary circumstance.

Graduate assistantship eligibility requires enrollment levels that supersede those contained in this continuous enrollment policy. Various agencies and offices maintain their own registration requirements that also may exceed those specified by this continuous enrollment policy (e.g., those of the Veterans Administration, Immigration and Naturalization Service for international students, and those required for federal financial aid programs.) Therefore, it is the student's responsibility to register for the appropriate number of credits that may be required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

**NOTE:** Students who are pursuing a certificate only are not subject to the continuous enrollment policy.

## **8.3. Leave of Absence**

Leave of Absence status <https://gradschool.oregonstate.edu/formlink/14711> is available to eligible students who need to suspend their program of study for good cause. The time the student spends on approved leave will be included in any time limits prescribed by the university relevant to degree completion. Students on approved leave may not a) use any university facilities, b) make demands upon faculty time, c) receive a fellowship or financial aid, or d) take course work of any kind at Oregon State

University. Leave of Absence forms must be received by the Graduate School at least 15 working days prior to the first day of the term involved. Family Medical Leave (FML) may be granted at any point during a term. FML inquiries should be directed to [medical.leave@oregonstate.edu](mailto:medical.leave@oregonstate.edu).

**NOTE:** Students who are pursuing a certificate only are not subject to the Leave of Absence Policy.

## 8.4. Unauthorized Break in Registration

Degree seeking graduate students who take an unauthorized break in registration relinquish graduate standing at the University.

To have graduate standing reinstated after an unauthorized break, students are required to reapply to their program (complete the online graduate admission application, pay the application fee, and may be required to register for three graduate credits for each term of unauthorized break in registration). It is advisable that students in this situation state that they are applying for readmission in the application packet. A reapplication does not ensure admittance to the program.

## 8.5. Grievance Procedures

Students should initially seek out their advisor and/or major professor to discuss and resolve grievances. If unable to resolve problems by working with his/her major professor, the student may request a meeting with the student's Thesis/Dissertation Committee or the Director of Academic Programs, and/or the EMT Graduate Admissions Committee to resolve grievances. Problems not resolved within either committee shall be brought to the Head of EMT and if necessary, subsequently to the CAS Dean. The OSU Dean of Graduate Studies will be available to discuss irresolvable grievance issues, and ultimately the Faculty Senate Graduate Committee rules on student grievances that are not resolved elsewhere.

The University Ombuds Office provides informal, impartial, and confidential conflict management services to graduate students. There is more information at <http://oregonstate.edu/ombuds/>

All students desiring to appeal matters relating to their graduate degree should follow the Grievance Procedures for Graduate Students. These procedures are available at:

<http://gradschool.oregonstate.edu/progress/grievance-procedures>

Graduate assistants, whose terms and conditions of employment are prescribed by the collective bargaining agreement <https://www.cge6069.org/members/cba/> between OSU and the Coalition of Graduate Employees, American Federation of Teachers Local 6069, should also refer to that document and seek guidance from OSU's Office of Human Resources.

## 8.6. Grade Requirements

### Grade Requirement

A grade-point average of 3.00 (a "B" average) is required: 1) for all courses taken as a degree-seeking graduate student (i.e. the cumulative GPA for all classes taken as a graduate student), and 2) for courses included in the graduate degree or graduate certificate program of study (i.e. the cumulative GPA for all classes included on the Program of Study). Grades below "C" (2.00) cannot be used on a graduate program of study. A cumulative grade-point average of 3.00 is required before the final oral or written exam may be undertaken.

### PhD program requirements

A grade lower than a B- in *any* course will be considered a failing grade for Toxicology PhD graduate students. A student receiving a grade lower than a B- may be granted a single opportunity to repeat that course to obtain a passing grade. A student receiving a cumulative total of two or more grades lower than B- may be subject to dismissal from the Program.

### MS program requirements

Students can receive no more than two grades lower than B- to count towards their program of study for the

MS in Toxicology or Professional MS. Students who receive grades lower than a B- will meet with their mentor and the Director of Academic Programs to discuss an academic study plan. A student receiving a grade lower than a B- may be granted an opportunity to repeat that course to obtain a passing grade. Students must maintain an overall GPA of 3.00 prior to their final exam. Students unable to meet this minimum requirement may be subject to dismissal from the Program.

### Review of Student Progress

First year students in the Toxicology Program without a major professor will be evaluated by the Director of Academic Programs at the end of each term. Following selection of the major professor, that professor and the student's Thesis/Dissertation Committee will take over as the progress assessment team. The Thesis/Dissertation Committee will meet at least once per calendar year to assess student progress and to complete and review the [Annual Review](#). *It is the responsibility of the individual student to arrange for these meetings and document their progress. Registration holds may be placed on student registration at the discretion of the EMT Department Head in consultation with the Chair of the Academic Programs Committee and the student's major professor to ensure that these meetings occur.*

The appropriate team will help the student to assess progress and set goals for completion of various aspects of the Program. Lack of progress in the Toxicology Program is grounds for dismissal from the Program. Lack of progress may include lack of research productivity and/or poor grades in academic coursework.

The most critical measure of success as a graduate student is adequate progress in reaching research and programmatic goals. The time and effort required for maintaining adequate progress will differ among individual students. Students should maintain good lines of communication with their major professor and Thesis/Dissertation Committee to ensure realistic goals are set and adequate progress can be maintained.

## **8.7. Incomplete Grades**

An "I" (incomplete) grade is granted only at the discretion of the instructor. The incomplete that is filed by the instructor at the end of the term must include an alternate/default grade to which the incomplete grade defaults at the end of the specified time period. The time allocated to complete the required tasks for the course may be extended by petition to the University Academic Requirements Committee. You can obtain the form from the Registrar's Office. It is the student's responsibility to see that "I" grades are removed within the allotted time.

## **8.8. Ethics Requirement**

OSU requires ethical research training as part of all graduate student programs. All graduate students in EMT must complete TOX 557 (Scientific Skills and Ethics) to meet this requirement. In addition, students will be directed by their major professor to complete ethics training required for their research through the Collaborative Institutional Training Initiative (CITI) (<http://www.citiprogram.org>), including the Responsible Conduct of Research (RCR) course. If your research involves human or animal subjects, you may be required to complete additional training modules on the CITI site. You can discuss the requirements with your major advisor.

Toxicology Program graduate students, like their faculty mentors, must to adhere to the highest standards of professional and scientific ethics in the conduct and reporting of their research and professional efforts. Guidelines for such ethical conduct to be adhered to are outlined in a number of milieus, and it is the personal responsibility of all graduate students to familiarize themselves with this code of ethics and adhere strictly to them. Deviations from these principles are cause for immediate dismissal from the program. Additional resources are below:

<http://www.niehs.nih.gov/research/resources/bioethics/>

<http://www1.od.nih.gov/oir/sourcebook/ethic-conduct/Conduct%20Research%206-11-07.pdf>

<http://ethics.od.nih.gov/train.htm>

<http://www1.od.nih.gov/oir/sourcebook/comm-adv/ethic-forum.htm>

<http://www1.od.nih.gov/oir/sourcebook/index.htm>

[http://www.nhgri.nih.gov/About\\_NHGRI/Dir/Ethics/message.html](http://www.nhgri.nih.gov/About_NHGRI/Dir/Ethics/message.html)

## **8.9. Publishing**

Faculty members have a range of policies on publishing results, for example, on where and when to submit results, and on the number and order of the co-authors listed. In some cases, these decisions depend on external factors such as the source of project funding. The best time to clarify any questions is at the beginning of a research project. Bring any concerns or questions about publishing results directly to your major advisor.

## **8.10. Student Conduct and Community Standards**

Graduate students enrolled at Oregon State University are expected to conform to basic regulations and policies developed to govern the behavior of students as members of the university community. The Office of Student Conduct and Community Standards (SCCS) is the central coordinating office for student conduct-related matters at Oregon State University.

Choosing to join the Oregon State University community obligates each member to a code of responsible behavior, which is outlined in the <https://studentlife.oregonstate.edu/studentconduct>.

The assumption upon which this Code is based is that all persons must treat one another with dignity and respect in order for scholarship to thrive.

Violations of the regulations subject a student to appropriate disciplinary action.

## **8.11. Academic Dishonesty**

Graduate students enrolled at Oregon State University are expected to conform to the policies developed to govern the behavior of students as members of the university community. The regulations have been formulated by the Student Conduct Committee, the Student Activities Committee, the University Administration, and the State Board of Higher Education. Violations of the regulations subject a student to appropriate disciplinary or judicial action. The regulations and the procedures for disciplinary action and appeal are available via the Office of Student Conduct and Community Standards Website at <http://studentlife.oregonstate.edu/studentconduct/>.

Academic Dishonesty is defined as an act of deception in which a student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research, either through the Student's own efforts or the efforts of another. It includes:

- CHEATING — use or attempted use of unauthorized materials, information or study aids, or an act of deceit by which a Student attempts to misrepresent mastery of academic effort or information. This includes but is not limited to unauthorized copying or collaboration on a test or assignment, using prohibited materials and texts, any misuse of an electronic device, or using any deceptive means to gain academic credit.
- FABRICATION — falsification or invention of any information including but not limited to falsifying research, inventing or exaggerating data, or listing incorrect or fictitious references.
- ASSISTING — helping another commit an act of academic dishonesty. This includes but is not limited to paying or bribing someone to acquire a test or assignment, changing someone's grades or academic records, taking a test/doing an assignment for someone else by any means, including misuse of an electronic device. It is a violation of Oregon state law to create and offer to sell part or all of an educational assignment to another person (ORS 165.114).
- TAMPERING — altering or interfering with evaluation instruments or documents.
- PLAGIARISM — representing the words or ideas of another person or presenting someone else's words, ideas, artistry or data as one's own, or using one's own previously submitted work. Plagiarism includes but is not limited to copying another person's work (including unpublished material) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project and then submitting it as one's own.

Academic Dishonesty cases are handled initially by the academic units, following the process outlined

in the University's Academic Dishonesty Report Form, and will also be referred to SCCS for action under these rules.

## 8.12. Sexual Harassment

The OSU Office of Equal Opportunity and Access <https://eo.oregonstate.edu/> defines sexual harassment as the following: unwelcome\* sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature when:

- submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education;
- submission to or rejection of such conduct by an individual is used as the basis for employment of education –related decisions affecting such an individual; or
- such conduct is sufficiently severe or pervasive that it has the effect, intended or unintended, of unreasonably interfering with an individual's work or academic performance because it has created an intimidating, hostile, or offensive environment and would have such an effect on a reasonable person of that individual's status.

*[\*Employee conduct directed towards a student – whether unwelcome or welcome – can constitute sexual harassment under Oregon Administrative Rules (OAR).]*

There are two confidential resources to discuss reporting options: Center Against Rape and Domestic Violence (CARDV) provides 24/7 confidential crisis response at 541-754-0110 or 800- 927-0197, and OSU Sexual Assault Support Services is available weekdays at 541-737-7604.

## 8.13. Confidentiality of Student Records

Both federal and state laws permit Oregon State University staff to release directory information (e.g. name, address, degree program, birth date) to the general public without your consent. You can prohibit the release of directory information to the public by signing the Confidentiality Restriction form available from the Registrar's Office. It will not prohibit the release of directory information to entities of Oregon State University that have a "need to know" to accomplish their required tasks. It further will not prohibit Oregon State University departments from including your name on mailing lists for distribution of materials that are essential to your enrollment at Oregon State University.

<https://catalog.oregonstate.edu/grades-regulations-records/right-to-privacy/>

## 8.14. Services for Students with Disabilities

The EMT Department supports and complies with the rights of individuals with disabilities under federal law. Students with special needs because of disabilities that can be documented should contact the EMT Office as soon as possible. Requirements and/or procedures will be modified on a case-by-case basis as deemed necessary and appropriate. Special accommodation, such as for exams, can only be modified if the need is documented in advance. <http://ds.oregonstate.edu/home/>

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# 9. ACADEMIC PROGRAM INFORMATION AND GRADUATE DEGREE TYPES

## 9.1. Overview of Program, Degree Options, and Expected Learning Outcomes

Graduate training in the Department of Environmental and Molecular Toxicology (EMT) is intended to provide the necessary knowledge, skills, encouragement, and guidance to assist the student in the successful achievement of their educational and early career professional goals. EMT offers a highly collegial and exceptionally collaborative, research and training environment dedicated to the success and advancement of all EMT students, faculty and staff. Our integrated curriculum, combining both the biological and physical sciences, offers unique and exciting training and research opportunities in the fields of Molecular Toxicology,

Environmental Chemistry, Ecotoxicology and Risk Assessment in support of our state-of-the-art and internationally competitive research, outreach and education missions. Degrees offered in the Toxicology Program include both a thesis and professional M.S. and the Ph.D.

PhD and MS requirements are structured to allow for maximal flexibility for students to work with their mentors and thesis/dissertation committees to design an individualized program of study to meet the unique educational and career goals for each student. Students complete a required core series of fundamental classes, participate in a modular Integrated Environmental Chemistry and Molecular Toxicology seminar course each term, and complete additional elective coursework as described in their individual programs. Ph.D. students in addition must complete the preliminary qualifying exam.

A key component of our graduate training program is the mentoring partnership between the individual student and his or her major professor who serves as primary advisor. Students, in consultation with their advisor, develop an Individual Professional Development Plan that includes elements of experiential learning, outreach and professional development.

All students conduct research, and thesis M.S. and Ph.D. students prepare a written thesis or dissertation and present and defend their accomplishments in a public seminar and final examination. Generally, non-thesis M.S. degrees will take 1-2 years, thesis M.S. degrees 2-3 years, and Ph.D. degrees 4-5 years to complete.

The EMT Department is committed to promoting and sustaining a collaborative, inclusive and caring community that strives for equity and equal opportunity for all faculty, staff and students. We recognize that diversity and excellence go hand-in-hand, enhancing our teaching, scholarship and outreach missions.

### *PhD degree expected graduate learning outcomes*

PhD graduates will be able to:

- summarize major central issues and current research problems in their field;
- communicate the major tenets of their field and their work orally and in writing;
- explain and identify areas of uncertainty in their field;
- identify areas where ethical issues may arise in their work or discipline and be able to articulate strategies for dealing with such issues; and,
- PhD graduates will have designed, carried out, and presented an original work of research at the leading edge of their discipline that represents the creation of meaningful new knowledge.

### *Masters of Toxicology (MTOX) degree expected graduate learning outcomes*

MTOX graduates will be able to:

- summarize major central issues and current research problems in their field;
- communicate the major tenets of their field and their work orally and in writing;
- identify areas where ethical issues may arise in their work or discipline; and,
- MS graduates will have completed and defended an original manuscript based on their own original research

### *Professional Masters in Toxicology (PSMTOX) degree expected graduate learning outcomes*

PSMTOX graduates will be able to:

- Students will demonstrate mastery of material related to toxicology
- Students will learn to conduct scholarly or professional activities in an ethical manner
- Students can effectively communicate science in an outreach product or a well-written report that places their work in proper context to communicate major findings effectively

- Students demonstrate good oral communications skills during the closed defense with their committee
- Students display evidence of critical thinking skills during the oral defense

## **9.2. Role of Major Professor (Advisor) and Process for Selection**

Graduate training in the Department of Environmental and Molecular Toxicology (EMT) is intended to provide the necessary knowledge, skills, encouragement, and guidance to assist the student in the successful achievement of their educational and early career professional goals. We are committed to promoting and sustaining a collaborative, inclusive and caring community that strives for equity and equal opportunity for all faculty, staff and students. We recognize that diversity and excellence go hand-in-hand, enhancing our teaching, scholarship and outreach missions. A key component of our graduate training program is the mentoring partnership between the individual student and his or her major professor who serves as primary advisor. A successful partnership requires a clear understanding of the individual responsibilities for the student and the major professor, as well as the Academic Programs Director and the Department Head.

Although you will spend a lot of time the first year with classes and teaching, an EMT PhD is mainly about research. For most Master's students, research is also a major part of the program. Selecting a major advisor and a research topic is therefore one of the most important decisions that you will make at OSU!

We recommend exploring several research groups/opportunities before making your decision. Students will be able to explore research and mentoring opportunities through rotations during their first year. Once you have reached agreement with a Professor who will serve as your major advisor and joined a research group, become involved in research as soon as possible. Substantial presence in the research laboratory is typically required.

Until you have joined the research group of a major advisor, the Director and Deputy Director of Academic Programs will serve as your temporary advisor when you begin your graduate program. The department strongly recommends that new MS students explore research opportunities and join a research group by the middle of their second quarter at OSU. PhD students should identify a major advisor prior to the end of spring term. By mutual agreement, changes in major advisors can be arranged. In order to change major advisors, you should first meet with the Department Chair.

Only tenure/tenure-track faculty may serve as major advisors for PhD students in EMT. All tenure/tenure-track, research faculty or Professor of Practice (POP) faculty in EMT holding a MS or PhD degree may serve as major advisor for MS students. Adjunct faculty may also serve as major advisors; however, these faculty must identify a funding mechanism to support PhD students in the EMT program and have approval from the Department Chair. Emeritus faculty may serve as major advisors, but normally a co-advisor with active faculty status must be added.

Your major advisor assumes principal responsibility for directing your research activities. They are also your first point of contact regarding research progress and difficulties. Your advisor will edit your research proposals and thesis, encourage and facilitate your active participation in seminars, meetings, etc, and also chair your program meeting and the examination portion of the preliminary oral and final exams.

Advisors or other faculty also often serve a mentoring role for students, this role is usually informal and the extent and types of faculty mentoring are flexible. More information about faculty mentoring can be found at <http://gradschool.oregonstate.edu/faculty/graduate-mentoring>.

### ***Responsibilities for the Major Professor, Academic Program Director and Department Head***

#### **Major Professor:**

1. Willing to invest significant time in student academic and professional development



2. Accessible to student with regular meetings
3. Practice tolerance, patience, and respect for mentee  
Help a student direct his/her mental context and focus and encourage the exploration of options
4. Elicit feedback from student and provide constructive comments and suggestions
5. Individualize mentoring to address specific needs of mentee
6. Assist the student in selection of graduate faculty to serve on the student's thesis committee
7. Work with the student's thesis committee to help the student develop appropriate and achievable academic, research and professional goals
8. Help students be familiar with and navigate Graduate School policies, procedures and timelines
9. Assist the student in professional networking, including introducing student to key people and organizations
10. Provide input about academic and professional development training opportunities

*Academic Program Director and Department Head:*

1. Provide advising for incoming students and serve as head academic advisor (Academic Program Director)
2. Assist and support students in identifying graduate faculty to function as the major professor
3. Follow up with student's progress through regular reviews and communication with both student and the major professor
4. Resolve student conflicts/problems in a timely manner and in accordance with the procedures and policies outlined in the Graduate Student Handbook and the Graduate School.
5. Help students be familiar with and navigate Graduate School policies, procedures and timelines
6. Facilitate communication to the faculty of student concerns and suggestions for improvement in our programs through interaction with TEAM Tox and student representatives on departmental governance committees

### **9.3. Role of Responsibility of Student**

***Responsibilities and Expectations for Students***

Graduate students in EMT are expected to pursue their education and research with focus, creative energy and intellect. Our most valuable resources are (1) people and their ideas and time, (2) analytical instrumentation and equipment, and (3) funding. As a member of the EMT, students must explicitly recognize the value of, and make efficient use of, these resources. To ensure a successful mentoring partnership with their major professor, students have the following responsibilities (not intended to be an exhaustive list):

1. Must be open to and respectful of the major professor comments and suggestions
2. Have realistic expectations of the mentoring relationship
3. Communicate openly with mentor
4. Engage in self-examination of strengths and weaknesses
5. Have the courage to try out new behaviors
6. Identify specific needs and make suggestions to the major professor regarding methods to address those needs
7. Develop and jointly with the major professor monitor progress on individual educational and professional goals

***Academic Progress***

Students are expected to be familiar with the policies and procedures of the department, the Graduate School and the University. Students need to adhere to all deadlines and file the necessary paperwork (e.g. Program of Study, etc.) on time. Academic program requirements for PhD and MS students are detailed in subsequent sections of this Handbook. Students must maintain good academic standing and progress towards completion of their degree. In addition, see review of student progress on pg. 12 and annual review process on pg. 20.

## *Research Conduct*

All students are expected to engage in research in each term in which they are enrolled. Such research may include laboratory rotations for first-year students, research leading to the student's thesis or dissertation for M.S. and Ph.D. students, and research in-lieu of thesis as required for non-thesis M.S. students. Research typically requires work after hours and on weekends, whether in the laboratory or in the field. Work schedules generally are dictated by the needs of the experiments in progress. Research includes the goal setting and planning required to perform experiments successfully, the specific experimental manipulations, as well as consistent literature review to keep abreast of research developments and discoveries in toxicology and related sciences. Students are expected to generate high quality data, including the validation of sampling and analytical methods, the use of control experiments, and data quality assurance procedures. Any deliberate mishandling of data or activities that could constitute fraud will not be tolerated and may lead to disciplinary action up to and including dismissal. Students are expected to maintain complete and appropriate records, including a laboratory notebook containing summarized data/graphs/statistical analyses.

## *Laboratory Safety and Instrumentation*

All students will hold high expectations for safety and for the appropriate use of laboratory instrumentation. They must be willing to ask questions and seek additional training to ensure a safe laboratory environment. Students must complete and document all safety training required by the laboratory, the department and the university, and follow all standard laboratory precautions (even if the result is a delay in research productivity). This includes appropriate use of Personal Protective Equipment (appropriate gloves, safety glasses, closed-toe footwear, etc.), confining the use of hazardous and volatile chemicals in fume hoods, and not eating or drinking at laboratory benches. Laboratory equipment is a very costly resource, and improper use can be a safety hazard and a risk to the instrument. Students must receive training in the appropriate use of all laboratory instrumentation. Additional resources can be found on the departmental website: <http://emt.oregonstate.edu/emt/safety-information>

## *Research Compliance*

All research, teaching and testing activities at Oregon State University are regulated to ensure compliance with federal, state and local regulations and policies. Students are required to obtain appropriate training and certification in research compliance areas prior to initiation of regulated activities. OSU manages the wide array of regulated activities through a number of compliance committees, including Institutional Animal Care and Use, Occupational Health and Safety, Chemical Safety, Conflict of Interest, Diving Control Board, Institutional Review Board (for human subjects research), and Radiation Safety. Students should be aware that non-compliance or misconduct can result in severe penalties to the institution, and, in some instances, to the individuals involved. It is the responsibility of all members of the university community to be familiar with OSU policies as related to these research compliance areas. Information regarding the specific training needed can be found at the website for the Office of Research Integrity. (<http://oregonstate.edu/research/ori/index.htm>).

## *Research Data and Notebooks*

All students are responsible for maintaining complete, orderly and legible research notebooks, the format of which is to be determined by the major professor supervising their research. All research data and laboratory notebooks generated during graduate study are the property of OSU, the faculty member under whose direction the work was conducted and/or the appropriate funding agency. No data or laboratory notebooks may be removed from the laboratory or work area without the expressed written permission of the appropriate faculty member. Only copies of data and notebooks should be removed from the laboratory to prevent accidental loss or damage.

## *General University Academic Regulations*

The general University academic regulations are described in the *OSU Catalog* and available online: <http://catalog.oregonstate.edu/>. Additional policies governing all graduate students or specifically students enrolled in masters or doctoral degree programs are detailed within the catalog. All students must be familiar

with these academic regulations, as they apply to all graduate students at Oregon State University. In addition, EMT students also must adhere to the Toxicology programmatic requirements described herein.

## 9.4. Graduate Committee Membership

The composition of graduate committees is governed by the policies of the Graduate School and the EMT Department. Your major advisor will help you to select the other committee members, and this selection must be approved by the Graduate School. Typically, all members of the committee are OSU faculty, but adjunct members from other universities or appropriate organizations may serve if approved by both the EMT Department and the Graduate School (see below: 'policy on non- OSU committee membership'). At least two members in all types of committees must be regular faculty in EMT.

- *Professional Master's with research project committees* must have at least 3 members, including your major advisor, another EMT faculty member, and a EMT faculty representing the minor field or program emphasis. This third member may be an adjunct EMT faculty member. Research faculty and Professors of Practice holding
- *Master's with thesis committees* must have at least 4 members, including your major advisor, another EMT faculty member, a faculty member from outside the major program or from the minor field, and a Graduate Council Representative (GCR, see below) selected from a list provided by the Graduate School.
- *PhD committees* must have at least 5 members, including your major advisor, another EMT faculty member, and a Graduate Council Representative (GCR, see below) selected from a list provided by the Graduate School.

### *Graduate Council Representative (GCR)*

A Graduate Council Representative (known as a GCR or 'Grad Rep') is required for all doctoral committees, all M.A.I.S. committees, and all master's degrees involving a thesis. Your GCR represents the OSU Graduate Council and ensures that all rules governing committee procedures are followed. Your GCR must be present at your formal exam(s), and will be responsible for some of the paperwork that the Graduate School requires. Per Graduate School guidelines, the GCR will also lead your committee's roundtable discussion following your final oral exam. Your GCR must be a graduate faculty member outside your major and minor area. The GCR is a full voting member of your graduate committee. Many students select a GCR who can also add disciplinary expertise. Select your GCR using the online GCR list generation tool below and be sure to allow ample time for this selection process. If you run into difficulty finding a GCR to serve on your committee, you can re-generate the list until you find someone who is willing to serve.

<http://gradschool.oregonstate.edu/forms#gcr>

### *Policy on non-OSU committee membership*

Your graduate committee guides your course work and research and serves as your final examining committee. It is generally expected that all committee members or approved substitutes must be present for all formal meetings with the student (e.g. final oral exams). If you have a special case in which a committee member may need to participate remotely, you and your committee must assure that all the conditions for remote participation are met.

If the faculty member is not a member of the [Graduate Faculty](#) or is not approved for the role proposed, your major department/program will need to nominate the proposed member to act in those roles using the Nomination to Graduate Faculty form. You can contact Cheyenne Pozar [cheyenne.pozar@oregonstate.edu](mailto:cheyenne.pozar@oregonstate.edu) to help you with this process. Committee structure is evaluated when your program of study is received by the Graduate School and when you schedule your formal examination(s).

## 9.5. Program of Study

Graduate students must file a [Program of Study](#) with the Graduate School. The first step is to discuss your program with your advisor. The Program of Study document indicates all of the coursework, both classes taken at OSU and transfer credits if appropriate, that must be completed in order to obtain your graduate degree. See the degree program and the required and recommended course sections below for more details on programs specific to degree type and division.

Your program must have a minimum of 50% graduate-level stand-alone courses (i.e. courses other than 400/500 “slash” courses). Blanket-number courses, i.e. those courses with a 0 in the middle of the course number (such as TOX501, TOX507), are not slash courses and are included in the total although there are restrictions of how many such classes can be listed.

Changes to a Program of Study require the submission of the [Change of Degree](#) form. You may submit a petition for any of the following purposes:

- to add the concurrent MS degree to PhD program
- to transfer into a PhD program on completion of the Master’s program,
- to change from a PhD program to a Master’s program,\*
- to change from one graduate degree program to another.

\* **Note:** in addition to filing the Change of Degree form with the Graduate School, students wishing to switch from a PhD to an MS program must submit a completion plan to the Head of Department. This plan should list all remaining degree components (courses and research) together with the expected dates of completion, and provide a projected date of graduation. The completion plan must be approved and signed by the major advisor. It should be carefully noted that the EMT Department does not generally support MS students via assistantships.

### *Scheduling program meetings and exams*

It is the student’s responsibility to reserve rooms for required meetings and exams through the EMT Office. Notify the Graduate School of scheduled exams by using the Exam Scheduling form below at least two weeks prior to the exam date. Remind each committee member of the scheduled meeting or exam. Program meetings, preliminary exams, and final exams may be held during any period when school is in session. This excludes the periods between the regularly scheduled quarters and during official vacation periods.

[http://oregonstate.edu/dept/grad\\_school/forms.php#event](http://oregonstate.edu/dept/grad_school/forms.php#event)

### *Transfer Credit*

Students who wish to transfer graduate credits from other schools must provide transcripts for courses already completed to the Graduate School prior to the submission of a study program. If a student undertakes a transfer course after his or her study program has been approved, the student must provide the Graduate School with a transcript of this course prior to the final examination. The Graduate School does not assume responsibility for obtaining transcripts from other institutions.

Courses to be transferred **must be graduate level**, taken after the completion of a four-year baccalaureate degree (or equivalent), with grades of "B" (3.00 or equivalent) or better. No more than 5 years can have passed from the time of completion of graduate requirements and entry into the Toxicology Graduate Program. Up to 15 hours of graduate credit may be transferred into the M.S. Program. Graduate courses to be transferred to the Ph.D. Program in Toxicology can be courses that were used to satisfy the graduate course requirements for a graduate certificate or a master’s degree (or equivalent) with similar stipulations. There is no limit on transfer credit toward the doctoral degree as long as the doctoral residence requirement is satisfied (<http://catalog.oregonstate.edu/ChapterDetail.aspx?key=38#Section1802> ). All transfer credit courses must be approved by the EMT Academic Programs Committee. Graduate courses to be transferred to an OSU master’s degree must not have been used to satisfy the requirements for a master’s degree (or equivalent) or a doctoral degree from another institution.

## **9.6. Annual Review**

Graduate students in the Environmental and Molecular graduate program are reviewed annually to assess the graduate student's progress towards completion of their graduate degree and their work performance when supported as a graduate research assistant. The purpose of the annual assessment is to facilitate positive communication between the student and their major professor to maintain a high-quality graduate education program in the Department of Environmental and Molecular Toxicology. The annual review documents are due on June 1st of every year and cover the previous calendar year (Winter, Spring, Summer and Fall Quarter).

The EMT Annual Review process and submission is [online](#). Guidance can be found [here](#) with additional instructions for the online submission available [here](#).

## **9.7. Annual Individual Training and Development Plan Reports**

Students, in consultation with their mentor and thesis committee, will develop an [Individual Professional Development Plan \(IDP\)](#) that describes short- and long-term research and professional goals, required and applicable core competencies, and a coordinated timeline of experiential learning, outreach, and professional development activities. Annual meetings with the thesis committee are required and provide the student an opportunity for self-reflection and reporting on achievements and concerns, receiving input and advice from the committee, and amending the IDP as appropriate to ensure each student successfully develops the skills and knowledge necessary to achieve their goals. Students choose activities from a list of required and optional training modules and experiences (maintained on the department website) or may include other experiential learning opportunities with program approval. The specific activities will vary depending on individual goals and prior experiences but must address a programmatic requirement for interdisciplinary training to achieve a fundamental understanding of the core concepts of toxicology and the related disciplines of the environmental health sciences.

IDPs should be submitted [online](#) by June 1<sup>st</sup> as part of the [annual review process](#).

## **9.8. Seminars**

The integrated mission of the Department of Environmental & Molecular Toxicology (EMT) is to educate students in the toxicological sciences, to conduct research on the effects of chemicals and other agents on humans and the environment and to engage the public through extension and outreach. The EMT Department focuses on creating, disseminating, and applying new knowledge to enhance the treatment and prevention of human disease and to ensure the protection of the environment and public health. As such, the Department provides a Seminar Series to allow graduate students opportunities to disseminate their research. This opportunity allows for 1)graduate students to practice their public speaking to a broad audience and 2)other departments to gain insight on the exciting research taking place within EMT.

Graduate students who are members of EMT faculty lab (regardless of major) are required to participate in the EMT Seminar Series. [Seminar guidance](#) and [sign-ups](#) are available online.

## **9.9. Laboratory Rotations**

The purpose of laboratory rotations is to allow students to experience different laboratory techniques, begin networking, and learning about other research in the field of environmental and molecular toxicology. During the first quarter, M,S. and Ph.D. students participate in a weekly laboratory rotation which consists of spending attending a group meeting, a shadow experience, and a one-on-one meeting with the faculty member/delegate. To accommodate a large number of faculty members, there may be weeks students may rotate in more than one laboratory. These short laboratory rotations allow for students to 1) gain a more holistic perspective of the department and 2) understand the dynamics/research within each laboratory.

[Ph.D. Students:](#) Based on these rotations, students will select two faculty members to conduct their next two laboratory rotations (10 weeks each). The additional two rotations are required and exceptions can be granted by the Directors of Academic Programs. These rotations offer students to learn new skills and experimental approaches.

[M.S. Students:](#) After the first-term rotations, MS students are eligible to switch from a non-thesis to

thesis option and are encouraged to read about the different areas of research and contact faculty members about potential space and projects students could complete in their laboratory.

**Professional M.S. Students:** After the first rotation, MS students will meet with the Director of Academic Programs to identify an appropriate graduate advisor aligned with student goals. The graduate advisor will guide identifying and developing a capstone project, selecting elective courses for an individual study plan, and as a resource in graduate studies.

## 9.10. Program Curriculum

Graduate training in the Department of Environmental and Molecular Toxicology (EMT) provides the necessary knowledge, skills, encouragement, and guidance to assist our students in the achievement of their educational and early career professional goals. EMT offers a highly collegial and exceptionally collaborative, research, and training environment dedicated to the success and advancement of all EMT students, faculty, and staff. The program provides students with a fundamental understanding of the interdisciplinary science of toxicology and prepares them for leadership positions in research and development, academia, government, or professional services.

Our integrated curriculum, combining both the biological and physical sciences, offers training and research opportunities in the fields of **Molecular and Computational Toxicology, Environmental Chemistry, Ecotoxicology and Risk Assessment** in support of our state-of-the-art and internationally competitive research, outreach and education missions. Required core courses, advanced training in a specialized area, and interdisciplinary and team-based experiential learning and professional development opportunities together strengthen the student's training in the basic sciences and ensure a thorough knowledge of the applied science of toxicology. Degrees granted include both a thesis and non-thesis MS and a Ph.D.

*Summary of required courses and curriculum for graduate degrees*

<https://emt.oregonstate.edu/emt/graduate-programs/comparison-graduate-program-curriculum>

Courses	Term	PhD/ Concurrent MS	MS Thesis (MTOX)	MS Non- Thesis (PSMTOX)	AMP Thesis	AMP Non- Thesis
TOX 511 Fundamentals of Toxicology	F	3	3	3	3	3
TOX 512 Target Organ Toxicology	W	3	3	3	3	3
TOX 555 <u>OR</u> TOX 580 (Ecological or Human Health Risk Assessment)	W/ Sp	3	3	3	3	3
TOX 530 Chemical Behavior in the Environ	F	3	3	3	3	3
TOX 557 Scientific Skills & Ethics	Sp	3	3	3	3	3
TOX 599/699 Special Topics	Sp	2	1	1	1	1
ST 511 Methods of Data Analysis	F/W	4	4	4	4	4
<b>Core requirements subtotal</b>		<b>21</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>
TOX Elective courses* (restricted to TOX)	any	5-6	5-6	6	5-6	6
Elective courses* (unrestricted)	any	6-7	6-7	12	6-7	12
<b>Didactic course subtotal</b>		<b>33</b>	<b>32</b>	<b>38</b>	<b>32</b>	<b>38</b>
TOX 501 - Research	any	6	--	6	--	6
TOX 505 - Lab Rotation	any	3	1	1	--	--
TOX 507 - Seminar	any	3	--	--	1	1
TOX 503/603 - Thesis	any	63	12	--	12	--
<b>Totals (minimum required)</b>		<b>108</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>

\*3 elective credits (TOX or unrestricted) must be grad stand-alone for MS/PhD degrees

**Toxicology Electives for Graduate Degrees (AMP/MS/PhD)**

Course	Title	Term	Grad Stand-alone
TOX 529 (3cr)	Toxic Substances in Food	W	N
TOX 535 (3cr)	Genes and Chemicals in Agriculture: Value and Risk	Sp	N
TOX 555 (3cr)	Ecotoxicology and Risk Assessment: Aquatic Systems	W	N
TOX 580 (3cr)	Human Health Risk Assessment and Computational Toxicology	Sp	N
TOX 590 (3cr)	Environmental Forensic Chemistry	W	N
TOX 513 (2cr)	Advanced Regulatory Toxicology	F (2023-2024)	Y
TOX 575 (2cr)	Advanced Xenobiotic Metabolism	F (alt yrs)	Y
TOX 599/699	Molecular Carcinogenesis	TBD	TBD
TOX 599/699	Experiential Learning	All Terms	Y

**Recommended Unrestricted Electives for Graduate Degrees (AMP/MS/PhD)**

Course / Title	Credits	Term	Grad Stand-alone
BB 550 – General Biochemistry I	4	F/W/Sp	N
BB 551 – General Biochemistry II	4	F/W/Sp	N
BB 585 – Applied bioinformatics	3	Winter	Y
BB 590 – Biochemistry Structure and Function	3	Fall	N
BB 591 – Biochemistry 2: Metabolism	3	Winter	N
BB 592 – Biochemistry 3: Genetic Biochemistry	3	Spring	N
BDS 574X – Introduction to Genome Biology	3	Fall	N
BDS 575 – Comparative Genomics	4	Winter	Y
BDS 599 – Special Topics/ Python I	1	Winter	Y
BDS 599 - ST/RNA Sequencing	2	Fall	Y
BOT 576 - Intro to Computing in the Life Sciences	3	Fall	N
CH 661 - Separations: Chromatography and Related Methods	4	Fall/Winter	Y
GRAD 514 – Intro to Graduate Writing (e-campus)	3	Summer/Winter	Y
IB 531 – Vertebrate Physiology	4	Winter	N
ST 512 – Methods of Data Analysis	4	Winter/Spring	N
ST 513 – Methods of Data Analysis	4	Spring	N
ST 515 - Design and Analysis of Planned Experiments	3	Winter/Spring	N
ST 537 – Data Visualization	3	Spring	Y
ST 599 - Data programming in R	2	Fall	N

**PhD Program Requirements**

The Ph.D. Program in the Department of Environmental and Molecular Toxicology (EMT) provides the necessary knowledge, skills, encouragement, and guidance to assist our students in the achievement of their educational and early career professional goals.

<https://emt.oregonstate.edu/emt/graduate-programs/doctoral-phd-degree-toxicology>

Ph.D. Program of Study must include a minimum of 108 credits. The majority of these credits will be for thesis research. Additional requirements are:

- 50% of the total must be graduate, stand-alone courses (not 4XX/5XX slash)
- 27 credits of which must be regular, non-blanket course work (not 50X or 60X)
- No more than 15 credits of blanket-numbered courses (50X or 60X), other than thesis (TOX 603), may be included in the minimum 108-credit program
- Any declared graduate minor must be 18 credits min. (No minor is required.)

A student should plan on at least 5 years to satisfy all requirements of the degree. Normative time to advancement to candidacy is 7 quarters. Normative time to complete the Ph.D., measured from the time a student begins graduate study is 5.5 to 6 years. A [PhD program curriculum map](#) is available online.

Concurrent MS Degree: Graduate students in the Department of Environmental and Molecular Toxicology obtaining a Ph.D. will obtain a concurrent MS degree in Toxicology (non-thesis). The typical student will not need to take additional courses to satisfy the requirements for an MS degree. All Ph.D. graduate students will automatically be on this track with the option to opt-out for students who already have a MS prior to the start of the Ph.D. in Toxicology. If a student elects to opt-out, a written notification detailing the reason must be submitted to the Director of the Academic Programs for approval by the end of Winter term the first year. For students that opt-out for the MS, the EMT Tox core curriculum requirements remains the same (33 credits, transfer courses can be applied), but will not be required to form a MS committee, and present a public presentation followed by a closed-door session (MS oral exam) the 2<sup>nd</sup> year.

Additional guidance for the [Concurrent MS degree](#) for Ph.D. students is available online.

### *Masters of Toxicology (MTOX) Program Requirements*

All MS students are admitted as a Professional Masters student. Upon completion of the first quarter, MS students are eligible to switch to a Masters of Toxicology (MTOX).

<https://emt.oregonstate.edu/emt/masters-toxicology-mtox>

M.S. Program of Study must include a minimum of 45 credits. At least 12 of these credits will be for thesis research. Additional requirements are:

- 50% of the total must be graduate, stand-alone courses (not 4XX/5XX slash)
- 24 credits of which must be regular, non-blanket course work (not 50X or 60X)
- No more than 9 credits of blanket-numbered courses (50X or 60X), other than thesis (TOX 503), may be included in the minimum 45-credit program
- Any declared graduate minor must be 15 credits min. (No minor is required.)

A student should plan on at least 2 years to satisfy all requirements of the degree. Normative time to complete the MS, measured from the time a student begins graduate study is 2.25 to 2.5 years. A [MTOX program curriculum map](#) is available online.

### *Professional Masters in Toxicology (PSMTOX) Program Requirements*

The Professional Science Masters of Toxicology (PSMTOX) provides training for recent graduates of undergraduate programs looking to advance their study in Toxicology but do not wish to pursue research training and would like to enter the workforce and early-career professionals. The degree emphasizes job-related experiences through a professional internship or capstone project.

<https://emt.oregonstate.edu/emt/graduate-programs/professional-masters-toxicology-psmtox>

M.S. Program of Study must include a minimum of 45 credits. At least 6 of these credits will be for the capstone project. Additional requirements are:

- 50% of the total must be graduate, stand-alone courses (not 4XX/5XX slash)
- 30 credits of which must be regular, non-blanket course work (not 50X or 60X)
- No more than 9 credits of blanket-numbered courses (50X or 60X), other than capstone (TOX 501), may be included in the minimum 45-credit program
- Any declared graduate minor must be 15 credits min. (No minor is required.)

A student should plan on at least 18-24 months to satisfy all requirements of the degree. Normative time to complete the MS research paper (non-thesis), measured from the time a student begins graduate study is 2.25 to 2.5 years. A [PSMTOX program curriculum map](#) is available online.

## **9.11. PhD Preliminary Exam**

Students must pass the written and oral components of the preliminary exam to advance to Ph.D. candidacy before the end of their second full year of enrollment in the program. They develop and defend a novel research proposal that subsequently may be submitted as a pre-doctoral fellowship application to an appropriate funding agency. The exam is conducted by the thesis committee and assesses the extent to which the student:



- Understands and can apply the fundamental concepts of toxicology and the environmental health sciences, including how chemical occurrence and fate can lead to exposure and contribute to the potential for adverse and/or beneficial effects at multiple levels of biological organization, and how risk analysis and management can mitigate the potential for adverse effects due to exposure
- Can design, conduct and communicate original and independent research studies
- Has the capacity and potential to be a creative and critical thinker

### *Objective*

The overall objective of the preliminary examination for advancement to Ph.D. candidacy should assess whether a graduate student has the capacity and potential:

- i) to understand the science that informs our understanding of how chemical occurrence and fate leads to potential exposure and how exposure potentially triggers adverse-outcome pathways in humans and organisms in the environment
- ii) to be a creative and critical thinker;
- iii) to understand the scientific literature;
- iv) to conduct original and independent research; and
- v) to communicate the ideas and results of experiments.

Thus, the ideal examination format would select for these characteristics and prepare the student for the selective pressures that will be encountered upon completing the Environmental and Molecular Toxicology Ph.D. degree Program. In order to maintain high standards and produce quality graduate students, the examination must be rigorous and challenging. In addition, the exam format should set specific limits on the amount of time that the student dedicates to this process.

### *Exam Format*

The preliminary examination format outlined below consists of both oral and written elements. This examination must be completed no later than the end of the 8<sup>th</sup> academic term after entering the program (including summer terms). Any delay in scheduling the examination must be approved by the student's Thesis/Dissertation Committee. In most cases, the student would schedule the exam in the Spring or Summer term of the second year of residency, although students may take the exam earlier, after completing at least one year in the Program. The examination consists of a written and oral presentation of a research proposal. As outlined, the student's ability to develop, research, and defend original scientific ideas would be evaluated. The student is expected to demonstrate a capacity for critical thinking and a command of the specific field of focus. Since the student would have completed most, if not all, of the required coursework prior to scheduling the preliminary exam, the student's general knowledge of environmental and molecular toxicology should also be evaluated.

### *Procedural Outline*

#### **Research Proposal (written/oral)**

1. Student submits an outline description (required elements listed below) for a potential research project. The subject of the project must be chosen by the student based on their knowledge and review of the literature, and must describe original, hypothesis-driven research. The proposed project cannot be taken directly from their mentors published or unpublished content (i.e. manuscripts, abstracts, database of funded projects, submitted grant applications, etc.). Proposed projects however can be related to the thesis research of the student. Project outlines (limited to 1 page) must include:
  - a. Description of an unresolved question relevant to the field of environmental and molecular toxicology. (1-3 sentences)
  - b. Statement of specific hypothesis to be tested. (1-2 sentences)

- c. Description of an experimental approach designed to test the hypothesis, including a minimum of two specific aims, and a statement of the rationale (justification) for the proposed approach. (2-6 sentences)
  - d. Statement of the significance of the proposed research. (1-2 sentences)
2. The student's graduate committee is responsible for the review and approval of the topic to be developed into a full written proposal. Approval of the topic would occur within one week after the outline is submitted if it is deemed of high originality, quality, potential significance and likely to contribute meaningfully to the student's education and training. During this period the outline would be returned to the student, and the student would receive feedback from the committee concerning the quality and design of the outlined project. Major strengths and weaknesses in the experimental design or rationale would be identified at this stage. Students may be required to modify their proposal topics and/or develop new topics if the original submission is deemed unacceptable.
3. Student develops a written research proposal using the format and topic guidelines of application for the EPA, NIH, NSF, or other appropriate granting agency. The written proposal must be completed and returned to the committee within 4 weeks after the topic was approved. The scope of the project would be equivalent to that of a proposal expected to take approximately 2-3 years of research time. The proposal is limited in length to 10 pages of single-spaced text (11 point Arial font with 0.5 inch margins), and must include the following elements:
  - a. **Specific Aims.** State concisely and realistically what the research described in this application is intended to accomplish and what hypothesis is to be tested. **Do not exceed one page.**
  - b. **Background and Significance.** Briefly describe the background to the present proposal, critically evaluating the existing literature and specifically identifying gaps, which the project is intended to fill. State concisely the importance of the research described in this application and relate the specific aims to the long-term objectives. **Limit to two pages.**
  - c. **Research Design and Methods.** Discuss in detail the experimental design and procedures to be used to accomplish the specific aims of the project. Describe the protocols to be used and the tentative sequence of investigation. Include the means by which the data will be analyzed and interpreted. Discuss the potential difficulties and limitations of the proposed research and alternative approaches to achieve the aims. Point out any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised. **Limit to seven pages.**
  - d. **Literature Cited.** In text citations should use a numbered format. The student is strongly encouraged to use Endnote or similar reference management software to insert the references. The literature citation list at the end of the proposal does not count towards the 10 page limit.
  - e. **Appendix.** Students may include additional figures in an appendix, limited to 5 pages. The appendix may not be used to circumvent the page limits of the proposal.
4. Timeline: must be completed by the end of the 8th academic term including summers. Lab personnel cannot contribute to the work. The oral exam should be scheduled within 2 weeks of completion of the written proposal. This deadline can be extended only by unanimous approval of the student's graduate committee.
5. During the exam the student would present the proposed research plan and defend the experimental approach. Presentation would involve a seminar format with slides/overheads and would be expected to last no longer than 30 min. Following the presentation, the student would be judged on the soundness of the hypothesis, their understanding of the subject matter, their ability to defend the proposed experimental design, and their general knowledge of the field of environmental and molecular toxicology. The exam is expected to last approximately 2 hours, and is limited in length to 3 hours.

## *Examination Committee*

The examination committee is the graduate student's Thesis/Dissertation Committee. The committee consists of a minimum of five members of the graduate faculty, including at least two members from the major department and a representative of the Graduate Council Representative (GCR). If a minor is declared, the committee must include a member from the minor department. All committee members must be on the graduate faculty with appropriate authorization to serve on the student's committee. The major professor would serve as the chairperson of the committee to oversee the exam and will ensure that the student independently answers the questions. The GCR chairs the evaluation of the student's performance. The decision concerning whether the student merits advancement to Ph.D. candidacy would be the responsibility of the examination committee. Students should provide their committee with the Preliminary Exam Guidance for Committee (located in Appendix).

## *Evaluation*

The basic question for the committee is whether or not they believe the student is adequately prepared to conduct doctoral level research and has a good chance of successfully completing such research. Following a discussion of the student's performance on the examination, each committee member is then asked to vote on the basic question. It is appropriate for secret ballots to be used, and secret ballots must be used if requested by any committee member.

If there is one negative vote on this question, the student will have passed. If there are two or more negative votes on this question, the student has not passed.

If the committee decision is that the student has not passed the examination, the committee must then decide whether or not to allow the student to take a re-examination. If the majority of the committee votes in favor of a re-examination, the recommendation for re-examination should be recorded. In addition, the committee must set a time interval that must elapse before the re-examination is permitted. If the majority of the committee votes against a re-examination, the recommendation to terminate the student's work toward this degree should be recorded.

## *EMT Assessment Form*

EMT Toxicology program conducts exam assessment to evaluate graduate learning outcomes at the time of the preliminary exam. Graduate students completing a Prelim Exam must complete an EMT exam assessment form. Graduate students must provide the appropriate assessment forms to their GCR prior to the exam. The form is to be completed by the committee (in addition to the Graduate School Forms) and returned to Mary Mucia in the EMT Office.

[PhD Preliminary Exam Form](#)

## **9.12. MS/PhD Final Exam**

### *Master's Degree*

Successful completion of a final oral examination is required for both thesis and non-thesis option master's degrees in Toxicology. You must have a minimum GPA of 3.00 to schedule the final oral examination. Any incomplete grades on courses on the program must be completed prior to scheduling the final oral examination.

Your advisor will provide you with critical guidance as you prepare for your final exam. Some deadlines for your Master's degree final exam and program completion are as follows:

At least two weeks before final oral exam:

- coordinate with your committee to set a time and date for your final oral exam
- reserve a room for the exam
- schedule your final oral exam with the Graduate School
- submit a diploma application to the Graduate School

- inform the EMT Office so the exam announcement goes out
- for thesis option, distribute a defensible copy of your thesis to your committee
- bring or email pre-text pages of your thesis to the Graduate School.
- for project option, submit a copy of the project report to the EMT Office

Within six weeks after oral examination or 1st day of following term (whichever comes first):

- submit your thesis or final project report as a PDF file to the OSU graduate [ScholarsArchive](#). Detailed and up-to-date instructions on how to do this are provided at the website
- submit an electronic or bound copy to the EMT Office and to your major advisor

### Professional M.S.

Non-thesis option master's students in Toxicology are required to prepare and defend a final report for their capstone project. Exam requirements for PSMTOX are available [online](#). In addition, specific guidance about the capstone project and report are [available](#). This report may describe research undertaken by the student, or may be a position paper based on the student's literature review and independent analysis of a current issue in toxicology. The final examination will consist of an oral presentation and defense of the research paper/report by the student to their committee. Not more than half of the examination period should be devoted to the presentation of the research project/final report; the remaining time can be spent on questions relating to the student's knowledge of the major field, and minor field if one is included in the program. For non-thesis master's degree programs, the major professor is responsible for directing and assigning a final grade for the research or culminating project. Other members of the non-thesis committee will assess the student's defense of the project in the final oral examination, as well as the student's knowledge of his or her field, and vote to pass or fail the student. The examining committee consists of three members of the graduate faculty—two in the major field and one in the minor field if a minor is included. When a minor is not included, the third member may be from the graduate faculty at large.

All graduate committee members must be present for the final/oral exam. Prior to this meeting, paperwork should be filed with the OSU graduate school. The meeting format is a student project presentation (15-20 minutes) followed by questions from the graduate committee. The meeting should last approximately 30-45 minutes. One week before the final/oral exam meeting, the final project report should be distributed to all graduate committee members. The [EMT MS Final Exam Assessment Form](#) should be completed by the committee and returned to Mary Mucia in the EMT office.

### Thesis M.S.

The oral exam given to thesis option students will be administered by the student's thesis Committee and will be based upon the student's thesis research and general areas of toxicology and appropriate fields related to the student's research project. The student will schedule their oral exam in the form of a public seminar on the OSU main campus presenting and defending their thesis research, with an emphasis on the background and significance of the problem, and the results of the studies conducted to test their hypotheses. Following the public seminar, the student and their Dissertation Committee will meet in closed session to continue the examination. The exam may consist of questions from core areas of toxicology, supporting sciences, and areas in which the student has received specialty training (e.g., elective coursework, as well as questions relating to the student's thesis research. Typically, the oral examination will take 1-2 hours. The oral examination may not be scheduled until the student has received approval from their Thesis Committee.

For thesis option master's candidates, not more than half of the examination period should be devoted to the presentation and defense of the thesis; the remaining time can be spent on questions relating to the student's knowledge of the major field, and minor field if a minor is included in the program of study. Graduate faculty serving on thesis-oriented master's degree programs may contribute to the direction of the student's thesis, will assess the student's thesis and his or her defense of it in the final oral examination, will vote to pass or fail the student, and may sign the thesis when it is in acceptable final form. The examining committee consists of at least four members of the graduate faculty—two in the major field, one in the minor field if a minor is included, and a Graduate Council representative. When a minor is not included, the fourth member may be from the graduate faculty at large. All members of the student's graduate committee must approve the scheduling of the final examination.

Students writing a thesis must have a Graduate Council representative on their committee. It is the student's responsibility to obtain his or her own Graduate Council representative from a list provided by the Graduate

School. This must be done prior to scheduling the final exam. The [EMT MS Final Exam Assessment Form](#) should be completed by the committee in addition to the graduate school forms and returned to Mary Mucia in the EMT office.

### *Doctoral Degree Final Oral Exam*

After completing their PhD research and preparing their theses, students take a final oral exam/ thesis defense. The meeting is normally 3 hours in length and begins with an oral presentation of the thesis research that is open to the public. This is followed by a closed-door exam by the committee focusing on your thesis work and your field of specialization. Schedule this exam with the Graduate School and your committee as a 3-hour meeting at least two weeks in advance. The final exam must be scheduled at least one full academic term, but no more than five years, after completion of the preliminary exam.

Some [deadlines](#) for your final exam and PhD completion are as follows:

At least two weeks before final oral exam:

- coordinate with your committee to set a time and date for your final oral exam
- reserve a room for the exam
- schedule your final oral exam with the Graduate School
- submit a diploma application to the Graduate School
- inform the EMT Office so the exam announcement goes out
- submit pre-text thesis pages to the Graduate School for review and editing
- bring or email pre-text pages of your thesis to the Graduate School.
- distribute a defendable thesis copy to your committee.

Within six weeks after oral examination or 1st day of following term (whichever comes first):

- submit your thesis as a PDF file to the OSU graduate [ScholarsArchive](#). Detailed and up-to-date instructions on how to do this are provided on the [Student Thesis Guide](#) page.
- submit an electronic or bound copies to the EMT Office, and to your major advisor

The examining committee consists of the student's Dissertation committee. The Dissertation defense will be scheduled at such a time when all members of the student's Dissertation Committee can attend. An open invitation will be made to all EMT and OSU faculty, students, and guests to invite them to the dissertation defense. In preparation for the Dissertation defense, it is the responsibility of the student to contact committee members and other faculty members to determine their availability when scheduling the date. The student will provide all Dissertation committee members with a copy of his/her final draft of the dissertation at least two weeks prior to the scheduled defense.

After the open portion of the exam, the examining committee should exclude all other persons and continue with the examination of the candidate's knowledge of his or her field and the evaluation of the candidate's performance. Under normal circumstances, the closed portion of final examination should be scheduled for two hours.

In the oral examination, the candidate is expected to defend the thesis and show a satisfactory knowledge of his or her field. If more than one negative vote is recorded by the examining committee, the candidate will have failed the examination. No more than two re-examinations are permitted by the Graduate School, although academic units may permit fewer re-examinations. [The EMT PhD Final Exam Assessment Form](#) should be completed by the committee in addition to the graduate school forms and returned to Mary Mucia in the EMT office.

### **9.13. Thesis Preparation**

The [Graduate School Thesis Guide](#) provides detailed information on proper formatting of your thesis, electronic submission, and submission requirements prior to the final exam. Provide each member of your committee with a draft of the thesis two weeks before the thesis defense. Pretext pages must also be submitted to the Graduate School at the time of scheduling the defense.

Two copies of your thesis can be printed at no charge by [Student Multimedia Services](#) in the Valley Library, Media Services will print additional copies for a fee, or you may print them for yourself.

EMT requires a bound copy of your thesis be provided to the department. EMT will pay for the departmental copy. Cyrano in downtown Corvallis is a local option for binding or contact Mary Mucia for online options.

#### **9.14. Professional Development Opportunities and Internships**

EMT encourages graduate students to pursue professional development opportunities of all types as part of their training in the toxicology program and individual development plans. These opportunities include workshops, conferences, externships, and internships in addition other training opportunities. Overall, these opportunities will vary in length, how they are financially supported and how directly related they are to the student's dissertation project. In all cases, students should discuss plans to participate in professional development activities with their PI. Additional guidance and financial support may be available from EMT or the SRP and T32 training programs. In some cases students may be eligible to receive credit for activities on their academic transcripts with approval of the Department Head or Director of Academic Programs.

[Guidance for paid internships](#) is available online.

##### *TEAM Tox*

TEAM Tox is an organization open to all graduate and post graduate trainees working in EMT laboratories. The primary mission of TEAM Tox is to enhance and diversify the educational experience of all EMT graduate and post graduate trainees, provide opportunities for professional development above and beyond the formal EMT curriculum, enhance interactions between both EMT trainees and between EMT trainees and faculty, and provide a mechanism for representation of trainees issues and concerns to the EMT faculty and administration. Such activities will include, but not be limited to, participation and planning for student recruiting events, departmental seminars, departmental research days, departmental social events, departmental newsletters and year book, alumni and community outreach events. Additional information, including the current bylaws can be found by following the appropriate link on the EMT website: <https://emt.oregonstate.edu/emt/team-tox>

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Scoring Guide (Rubric) for Graduate Learning Outcome Assessment

Toxicology Graduate Program  
College of Agricultural Sciences

**MS THESIS DEFENSE EXAM in TOXICOLOGY**

Candidate Name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of Thesis: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition:</b> Has stated the research problem clearly, providing rationale for undertaking the research			
2. <b>Literature and Previous Work:</b> Demonstrated sound knowledge of literature in the area, and of prior work on the specific research problem			
3. <b>Impact of Research:</b> Demonstrated the potential value of solution to the research problem in advancing knowledge within the area of study			
4. <b>Solution Approach:</b> Has applied sound state-of-the-art research methods/tools to solve the defined problem and has described the methods/tools effectively			
5. <b>Results:</b> Analyzed and interpreted research results/data effectively			
6. <b>Quality of Written Communication:</b> Communicated research results clearly and professionally in <b>written</b> form			
7. <b>Quality of Oral Communication:</b> Communicated research results clearly and professionally in <b>oral</b> form			
8. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study and expertise in the area			
9. <b>Broader Impact:</b> Demonstrated awareness of broader implications of the concluded research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			
10. <b>Publications:</b> Journal or conference publications have resulted (or are anticipated) from this research			

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 10 above.

CRITERIA	PERFORMANCE RATINGS for THESIS EXAM		
	<i>Does NOT PASS Exam</i>	<i>PASSES Exam</i>	
OVERALL, My rating of the Thesis indicates that it:	Does not meet expectations	Meets expectations	Exemplary performance

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Examiner:** Please use the reverse side of this form for written commentary as needed. Send completed form to [Mary.Mucia@oregonstate.edu](mailto:Mary.Mucia@oregonstate.edu)

Scoring Guide (Rubric) for Graduate Learning Outcome Assessment

Toxicology Graduate Program  
College of Agricultural Sciences

**Ph.D. PRELIMINARY EXAM in TOXICOLOGY**

Candidate Name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of Thesis: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition:</b> Stated the research problem clearly, providing motivation for undertaking the research			
2. <b>Literature and Previous Work:</b> Demonstrated sound knowledge of literature in the area, and of prior work on the specific research problem			
3. <b>Impact of Proposed Research:</b> Demonstrated the potential value of the proposed solution to the research problem in advancing knowledge within the area of study			
4. <b>Solution Plan:</b> Provided a sound plan for applying state-of-the-art research methods/tools to solving the defined problem and shows a good understanding of how to use methods/tools effectively			
5. <b>Expected Results:</b> Provided a sound plan for analyzing and interpreting research results/data			
6. <b>Quality of Written Communication:</b> Communicated research proposal clearly and professionally in <b>written</b> form			
7. <b>Quality of Oral Communication:</b> Communicated research proposal clearly and professionally in <b>oral</b> form			
8. <b>Critical Thinking:</b> Demonstrated capability for independent research in the area of study, preparedness in core disciplines relevant to research, and ability to complete the proposed research			
9. <b>Broader Impact:</b> Demonstrated awareness of broader implications of the proposed research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 9 above.

CRITERIA	PERFORMANCE RATINGS for PRELIMINARY EXAM		
	<i>Does NOT PASS Exam</i>	<i>PASSES Exam</i>	
OVERALL, My rating of this preliminary exam indicates that it:	Does not meet expectations	Meets expectations	Exemplary performance

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Examiner:** Please use the reverse side of this form for written commentary as needed. Send completed form to [Mary.Mucia@oregonstate.edu](mailto:Mary.Mucia@oregonstate.edu)



Scoring Guide (Rubric) for Graduate Learning Outcome Assessment

Toxicology Graduate Program  
College of Agricultural Sciences

**Ph.D. DISSERTATION DEFENSE EXAM in TOXICOLOGY**

Candidate Name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of Thesis: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition:</b> Has stated the research problem clearly, providing rationale for undertaking the research			
2. <b>Literature and Previous Work:</b> Demonstrated sound knowledge of literature in the area, and of prior work on the specific research problem			
3. <b>Impact of Research:</b> Demonstrated the potential value of solution to the research problem in advancing knowledge within the area of study			
4. <b>Solution Approach:</b> Has applied sound state-of-the-art research methods/tools to solve the defined problem and has described the methods/tools effectively			
5. <b>Results:</b> Analyzed and interpreted research results/data effectively			
6. <b>Quality of Written Communication:</b> Communicated research results clearly and professionally in <b>written</b> form			
7. <b>Quality of Oral Communication:</b> Communicated research results clearly and professionally in <b>oral</b> form			
8. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study and expertise in the area			
9. <b>Broader Impact:</b> Demonstrated awareness of broader implications of the concluded research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			
10. <b>Publications:</b> Journal or conference publications have resulted (or are anticipated) from this research			

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 10 above.

CRITERIA	PERFORMANCE RATINGS for THESIS EXAM		
	<i>Does NOT PASS Exam</i>	<i>PASSES Exam</i>	
OVERALL, My rating of the Thesis indicates that it:	Does not meet expectations	Meets expectations	Exemplary performance

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Examiner:** Please use the reverse side of this form for written commentary as needed. Send completed form to [Mary.Mucia@oregonstate.edu](mailto:Mary.Mucia@oregonstate.edu)

# DEPARTMENT OF ENVIRONMENTAL AND MOLECULAR TOXICOLOGY



## PRELIMINARY EXAM GUIDANCE FOR COMMITTEES



### OVERVIEW

Students must pass the written and oral components of the preliminary exam to advance to Ph.D. candidacy before the end of their second full year of enrollment in the program. Students are asked to develop and defend a novel research proposal. The proposed project cannot be taken directly from their mentors published or unpublished content (i.e. manuscripts, abstracts, database of funded projects, submitted grant applications, etc.); however, proposed projects can be related to the thesis research of the student. The exam is conducted by the thesis committee and assesses the extent to which the student:

- Understands and can apply the fundamental concepts of toxicology and the environmental health sciences, including how chemical occurrence and fate can lead to exposure and contribute to the potential for adverse and/or beneficial effects at multiple levels of biological organization, and how risk analysis and management can mitigate the potential for adverse effects due to exposure
- Can design, conduct and communicate original and independent research studies
- Has the capacity and potential to be a creative and critical thinker

### APPROVAL OF A RESEARCH TOPIC

The student's graduate committee is responsible for the review and approval of the topic to be developed into a full written proposal. Approval of the topic would occur within one week after the outline is submitted if it is deemed of high originality, quality, potential significance and likely to contribute meaningfully to the student's education and training. During this period the outline would be returned to the student, and the student would receive feedback from the committee concerning the quality and design of the outlined project. Major strengths and weaknesses in the experimental design or rationale would be identified at this stage. Students may be required to modify their proposal topics and/or develop new topics if the original submission is deemed unacceptable.

### PRELIMINARY EXAM

The preliminary examination consists of both oral and written elements. The overall objective of the preliminary examination for advancement to Ph.D. candidacy should assess whether a graduate student has the capacity and potential:

- i) to understand the science that informs our understanding of how chemical occurrence and fate leads to potential exposure and how exposure potentially triggers adverse-outcome pathways in humans and organisms in the environment
- ii) to be a creative and critical thinker;
- iii) to understand the scientific literature;
- iv) to conduct original and independent research; and
- v) to communicate the ideas and results of experiments.

As outlined, the student's ability to develop, research, and defend original scientific ideas would be evaluated. The student is expected to demonstrate a capacity for critical thinking and a command of the specific field of focus. Since the student would have completed most, if not all, of the required coursework prior to scheduling the preliminary exam, the student's general knowledge of environmental and molecular toxicology should also be evaluated.