

# Department of Microbiology Graduate Student Handbook

Oregon State University

Ph.D. in Microbiology  
M.S. in Microbiology

2017-2018



## OSU MICROBIOLOGY GRADUATE PROGRAM HANDBOOK

### I. Introduction

This guide contains information on graduate study in the Department of Microbiology at Oregon State University. Pertinent material from the Graduate School is included in italics. Although this handbook is updated regularly, rules, regulations, and deadlines may change at any time. Students should refer to the Head Advisor, Department Head, or department web site for current departmental policies, and to the Graduate School for policies administered by the Graduate School.

### II. General Contact Information

- a. Program-specific contacts [names, role(s) of contact person, contact information (email, phone numbers)]. Examples of the types of contacts are:
  - i. The academic point person for the program, such as graduate program director  
Dr. Kim Halsey, Assistant Professor, Admissions Committee Chair,  
[halseyk@science.oregonstate.edu](mailto:halseyk@science.oregonstate.edu)  
Dr. Martin Schuster, Associate Professor, Curriculum Committee Chair,  
[martin.schuster@oregonstate.edu](mailto:martin.schuster@oregonstate.edu)
  - ii. The administrative point person for the program  
Mary Fulton, Microbiology office, [mary.fulton@oregonstate.edu](mailto:mary.fulton@oregonstate.edu)
  - iii. The point person for scheduling classes for GTA assignments  
Linda Bruslind, Senior Instructor, [bruslindl@oregonstate.edu](mailto:bruslindl@oregonstate.edu)
  - iv. The point person for reimbursement (travel and other expenses)  
Kimberly Howard, Accountant, Arts and Sciences Business Center,  
[kim.howard@oregonstate.edu](mailto:kim.howard@oregonstate.edu)
  - v. The point person for course overrides  
Sally Tatala, Microbiology office, [sally.tatala@oregonstate.edu](mailto:sally.tatala@oregonstate.edu)
- b. **Program website address:** <http://microbiology.science.oregonstate.edu/>

#### c. Graduate School

What is the [Graduate School](#)?

- 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 admission to degree completion.
- The Graduate School offers an array of [professional development opportunities](#) specific to the success of graduate students. Topics covered in these offerings include: research and

ethics, teaching and facilitation, writing and communication, leadership and management, career skills, grad life and wellness. Please visit the Graduate School links to browse our student success offerings.

#### **d. 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](#) provides resources, information, emergency phone numbers, and protocols for maintaining personal safety. Sign up for [OSU Alerts](#) to get timely messages delivered right to your phone or inbox regarding university closures and other emergency situations.

### **III. 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 <http://oregonstate.edu/fa/businessaffairs/idcenter> for additional information.
- Sign Up for Your Email Account. Set up your ONID (OSU) email as soon as possible. Instructions are available at <http://oregonstate.edu/helpdocs/accounts/onid-osu-network-id/gettingstarted-onid/onid-sign-instructions> 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 Professor or new student graduate 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.
- Register for Classes. You must register for classes before the first day of the term to avoid late fees. You should register after conferring with your Major Professor or new student graduate advisor.
- Get a desk assignment in your new lab.
- Pick up your keys and have your ID card activated for after-hours access to Nash Hall. Have your major professor contact Sally Tatala for keys and Cindy Fisher for ID activation.
- Make sure you have an after-hours permit. You will need this for authorized use in buildings at night or on weekends.

#### IV. 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 web page](#). Note that some services are campus-specific. See also [OSU Cascades Campus Life](#) and [Ecampus Student Services](#) for services specifically provided to graduate students pursuing degrees or certificates via those specific venues.

[Campus Safety](#) – Emergency phone numbers, university alerts

[Career Development Center](#) – Resume/CV, networking, job search strategies

[Childcare and Family Resources](#) – University child care centers, child care assistance

[Counseling and Psychological Services \(CAPS\)](#) – Individual and group counseling

[Cultural Resource Centers](#) – Cultural based community centers, social support

[Disability Access Services \(DAS\)](#) – Academic accommodations

[Equal Opportunity and Access \(EOA\)](#) – Employment accommodations, discrimination or bias response

[Financing your education](#) – Funding options and information, graduate awards

[Graduate Student Success Center \(GSSC\)](#) – Lounge, study space, printing, reservable meeting rooms

[Graduate Writing Center](#) – Writing workshops, groups, and 1:1 writing coaching

[Health Insurance](#) – Plans for graduate students and graduate employees

[Human Services Resource Center \(HSRC\)](#) – Food pantry, housing and food stamp assistance

[Institutional Review Board \(IRB\)](#) – Review for human subjects research

[Office of International Services \(OIS\)](#) – Visa and immigration advising

[Ombuds Conflict Management Services](#) – Informal, impartial conflict resolution advising

[Recreational Sports](#) – Dixon Recreation Center, intramural sports

[Statistics Consulting Service](#) – Graduate student research statistical advising

[Student Health Services \(SHS\)](#) – Clinic and pharmacy

[Student Multimedia Services \(SMS\)](#) – Poster printing, equipment and laptop loans

[Transportation Alternatives](#) – Bike, bus, SafeRide

[Transportation and Parking Services \(TAPS\)](#) – Parking permits, maps

[Valley Library](#) – Reference and research assistance, study spaces, research tools

#### V. Program Information and Policies [Many programs have multiple degree offerings. Please make sure to differentiate, when appropriate, program information and policies]

##### a. Overview/background of program

The Microbiology Program provides graduate training leading towards PhD and MS degrees. The Program supports broad interests in microbiology, including environmental and pathogenic microbiology, with studies that encompass a spectrum of approaches from the ecological and organismal to the molecular genetic and biochemical. Faculty from several colleges and departments participate as major advisors.

We train about 30-35 graduate students earning M.S. and Ph.D. degrees. Our research covers a broad range of subjects involving viruses, bacteria and parasites, and their roles in the health of the environment and humans, animals and plants. Microbiology faculty are strongly multidisciplinary and also train graduate students enrolled in related programs such as Molecular & Cellular Biology, Comparative Health Sciences, Soil Science, Food Science and Technology, Fisheries & Wildlife, and Oceanography. Graduate students are major contributors to the research output of the department.

**b. Appointment types and duration of studies**

Graduate students are either appointed as **Graduate Teaching Assistants (GTA)**, or as **Graduate Research Assistants (GRA)**. The typical appointment is at 0.49 FTE, equivalent to 255 hours per 13-week academic term, or 19.6 hours per week. The expectation is, therefore, that students devote approximately half of a full-time workweek to their assigned duties as GTA or GRA.

**GTAs duties include the following:** Under direction of faculty member in charge, GTAs provide teaching assistance in various ways, such as setting-up and taking down laboratory equipment and supplies, orally presenting lecture material, demonstrating microbiological techniques to, and supervising undergraduate students in laboratory classes and recitations, holding office hours, proctoring exams, grading assignments, maintaining records, and preparing for these activities as necessary. **The student's educational goals to fulfill the degree of Ph.D. or M.S. are independent of GTA duties and require substantial additional time.** The GTA salary is intended to offset educational expenses. GTAs must adhere to essential instructional policies conveyed during graduate student orientation ([https://media.oregonstate.edu/media/t/0\\_59jn7hzb](https://media.oregonstate.edu/media/t/0_59jn7hzb)).

**GRA duties include the following:** Under direction of faculty member in charge (major professor), GTAs conduct research related to the faculty member's grant that pays the student's salary and tuition. Tasks include designing and conducting experiments, developing methods, maintaining a functional work environment, analyzing and interpreting data, maintaining lab notes, writing manuscripts, presenting results at scientific meetings, and cooperating with other group members.; GRAs are available only through grants to individual faculty members. **The student's education, including coursework and thesis research, requires substantial additional time that is separate from the assigned GRA duties.** The GRA salary is intended to offset educational expenses, and research conducted as GRA may be applied towards thesis research, but is not sufficient by itself to fulfill the thesis requirement. Students must adhere to responsible and ethical conduct of research (RCR), and are required to complete RCR training if funded by federal agencies (NSF, NIH, and USDA).

Regardless of appointment type, it is primarily the student's motivation and dedication that determines productivity and progress in the program. A major objective is to produce a thesis in fulfillment of the degree of Ph.D. or Master's of Science.

Students are normally expected to complete their graduate programs within the following time limits, beginning with their first quarter at Oregon State University:

- Master's candidates -- 2 years
- Doctoral candidates -- 5 years

**c. Learning outcomes/competencies**

1. Conduct original research and contribute to the advancement of knowledge in microbiology
2. Demonstrate proficiency at using current methods and techniques in microbiological research
3. Communicate research findings to a scientific audience
4. Exhibit basic skills in teaching microbiology to Undergraduate students

**d. Degree options:**

Doctor of Philosophy (Ph.D.)  
Masters of Science (M.S.)

**e. Concentrations:**

No concentrations offered

**f. Requirements for degree**

**1. Coursework**

Course registration. The online OSU Schedule of Classes contains academic regulations and registration procedures that apply to all students at OSU, and also contains the final examination week schedule. The online catalog at (<http://catalog.oregonstate.edu>) has up-to-date information for the current and immediately upcoming term. It is your responsibility to register for the appropriate number of credits each term as required by the Microbiology Department, OSU or any relevant funding agencies. Problems arising from registration procedures, including late registration, adding or withdrawing from courses after deadlines, or late changes from letter or S/U grading are resolved by submitting a formal petition to the Registrar's Office at <http://oregonstate.edu/registrar/node/92/#Registration%20Forms>. International students who are concerned with regulations surrounding registration should also see the "International Students" section. 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 Microbiology Department requires all graduate students, except in very special circumstances, to register for 12-16 credits every term, except summer, when students register for only 3 credits. In part, this helps avoid loss of an assistantship if you withdraw from a course during the term. You must pay additional fees if granted an exception to register for more than 16 credits.

Students register over the web, following the instructions on the OSU web site ([https://adminfo.ucsadm.oregonstate.edu/prod/twbkwbis.P\\_WWWLogin](https://adminfo.ucsadm.oregonstate.edu/prod/twbkwbis.P_WWWLogin)).

Before you begin registration, know which courses you plan to take. If you do not know, please contact your research lab rotational professor or major professor for advice on registering for classes. Variable credit hour classes (such as MB501, 503, 601, and 603) require departmental approval before you can register. To register for variable credit hour classes: first e-mail the instructor and ask for permission to register for a specific number of

credit hours. For MB 503 and 603, this is your thesis advisor. For MB 501 and 601, this is your rotation advisor. Provide them with the CRN and your OSU ID number. The instructor will then contact Sally Tatala, who will activate that class for you.

You must have an OSU ID number, a GAP (general access PIN, which for first-time users is your birthdate MMDDYY), and be officially enrolled (OSU admission must enter your information into their computer before you can register). You should have received an acknowledgement from admissions in a letter to you by now.

Courses. The schedule of classes is posted on-line (<http://catalog.oregonstate.edu/SOC.aspx?level=grad>). **Graduate Teaching Assistant (GTAs) should select no more than 2 lecture courses. Graduate Research Assistants (GRAs) may choose 3 lecture courses per term.**

All Microbiology Ph.D. and M.S. students are required to take a **six credit sequence of core courses** during their first year:

**MB 511. SCIENTIFIC SKILLS** (1 cr, F). Foundational skills for success in graduate school. Students will also become familiar with ongoing microbiology research programs through attending colloquium.

**MB 512. HIGHLIGHTS OF MICROBIOLOGY** (1 cr, W). Designed for students to gain familiarity with the history of microbiology through reading, reviewing and writing about notable papers in the field.

**MB 513. MICROBIAL SYSTEMS** (3 cr, W). Presentation of a modern view of microbiology through the lens of microbes' influences on our planet's habitats and inhabitants. Discusses current research and the use of advanced techniques to illustrate how microbiology is contributing to many cross-disciplinary problems that can involve engineering, public health, sociology, ecology, geology, etc.

**GRAD 520. RESPONSIBLE CONDUCT OF RESEARCH** (1 cr, all terms). Covers 10 topics in responsible conduct of research: ethical decision making; human subjects; animal welfare; data acquisition; sharing and ownership; research misconduct; conflicts of interest; authorship; peer review; mentor/trainee responsibilities; and collaborative science. Useful to all students who conduct scholarly activity.

So, all first-year graduate students must register fall term for MB 511 (Scientific Skills). In addition, all first-year students must take GRAD 520 (Responsible Conduct of Research; offered each term) at some time during the first year. MCB 557 (offered alternate spring terms) may be substituted for GRAD 520, but is 3 credits instead of just 1 credit. We recommend GRAD 520. In addition, all students must take MB 512 (Highlights of Microbiology) and MB 513 (Microbial Systems) winter term.

In addition to the required core sequence, students choose among a broad selection of courses offered by the Department of Microbiology and other relevant programs on campus. If appropriate, all of these additional course credits may come from other relevant programs. Please consult with your major professor/rotational advisor on which courses to take. Fall term, our department (our courses have the prefix "MB") offers Immunology (MB 516), Immunology Lab (MB 517), and Microbial Genomes, Biogeochemistry and Diversity (MB520). The MCB program offers a course in genome organization, structure and maintenance (MCB554), which may also be of interest to you.

RELEVANT COURSES FOR 1 <sup>ST</sup> YEAR MICROBIOLOGY GRADUATE STUDENTS					
Term	No.	Title	CRN	Credits	Status
Fall	MB 511	Scientific Skills	18056	1	Required first term
Winter	MB512	Highlights of Microbiology		1	Required winter term
Winter	MB 513	Microbial Systems	19437	3	Required winter term
F,W,S	GRAD 520	Res Conduct Res	17076	1	*
Fall	MB 516	Immunology	16016	3	**
Fall	MB 517	Immunology Lab	16018	2	**
Fall	MB 520	Microb Genomes...	16711	3	**
Fall	MCB 554	Genome Org Strct..	10792	4	**
F,W,S	GRAD 511	Design Path Succes	18809	1	**

\*Required during first year, but may be taken F. W, or S.

\*\*Elective. Consult with your major professor or Dr. Geller; these are popular courses but others might be more appropriate depending on your research topic/interests.

You are **required to register every term for research credits (MB 501 or 601) or thesis credits (MB 503 or 603)**. PhD students register for MB 601 or 603. MS students register for MB 501 or 503. These are variable credit courses. You should register for the number of credits of MB 501, 503, 601, or 603 that brings your total number of credits to 12-16 credits. For example, if your lecture courses equal 9 credits, please register for 3 credits of research or thesis. Register for research (MB 501 or 601) if you have not committed to a thesis project, and for thesis research (MB 503 or 603) once you have committed to a lab in which you plan to do your thesis. Students who have completed their lecture course requirement should register for 12 credits of either MB 503 or 603. An important distinction between MB501/601 and MB503/603 is that **MB501/601 is graded whereas MB503/603 is not**.

Program of study. Taken together, the number of courses and research credits required to complete the degree is termed "Program of Study". It consist of the following components:

**M.S.: 45 graduate credits total (i.e., 500 or 600 level)**

- 24-33 coursework credits consisting of:
  - The required core sequence of 4 courses (6 credits) during Year 1
  - 18-27 credits from MB listings or courses relevant to the thesis research offered by other programs IF agreed to by the thesis committee
- 12 Thesis credits (MB 503): minimum of 6, maximum of 12 (12 cr recommended).
- 0-9 "Blanket" credits (XOX course designation excluding Thesis MB 503) from MB 501 Research, MB 505 Reading and Conference, or MB 507 Seminar/Colloquium.

*Note: 23 of the 45 credits must be graduate stand-alone courses (500/600 level) that are not derived from the 500 component of 400/500 courses. For example, after the 6 required first year core sequence credits and typical 12 MB 503 thesis credits, 5 further credits must be graduate only.*

*Note: Enrollment in MB 501 Research is appropriate while rotating or before thesis project has been decided.*

*Note: Full time enrollment is 12 credits per term in the academic year and 9 in the summer. Maximum load permitted is 16 credits.*

**Ph.D.: 108 graduate credits total (i.e., 500 or 600 level):**

- At least 36 coursework credits consisting of:
  - The required core sequence of 4 courses (6 credits) during Year 1
  - 30 or more credits from MB listings or courses relevant to the thesis research offered by other programs IF agreed to by the thesis committee.
- At least 36 Thesis credits (MB 603)
- 0-15 "Blanket" credits: (XOX course designations excluding Thesis MB 603), from MB 501/601 Research, MB 505/605 Reading & Conference or MB 507/607 Seminar/Colloquium.
- Sufficient additional Thesis MB 603 credits to reach 108 total credits.

*Note: 54 of the 108 credits must be graduate stand-alone courses (500 or 600 level) that are not derived from the 500 component of 400/500 slash courses. This will typically be satisfied by the 6 credits of the required first year core sequence and MB 603 Thesis credits.*

*Note: Enrollment in MB 501 Research is appropriate while rotating or before thesis project has been decided.*

*Note: The 108 credit requirement is for credits beyond the bachelor's degree; thus coursework credits from a recent MS degree may be counted.*

*Note: Full time enrollment is 12 credits per term in the academic year and 9 in the summer. Maximum load permitted is 16 credits.*

## **2. Research**

All students must satisfactorily complete a thesis based on their laboratory research. Satisfactory completion of a degree is based on the performance and contribution of the student, as judged by the major professor and the thesis committee, and not on any specific length of time. However, M.S. students usually require about 2-3 years, and Ph.D. students 4-6 years.

All students are required to perform laboratory research each term. Some students enter the program as GRAs and remain associated with a specific laboratory throughout their studies. Others enter the program as GTAs and move to a different lab each term during their first year. This is called "**lab rotation**", and is advisable for those students that have not yet decided on a specific laboratory. In this case, it is your responsibility to make arrangements with one of the graduate faculty to work on a laboratory research project. To do this, familiarize yourself with the research interests of our faculty. This may be accomplished by accessing information on our web site (<http://microbiology.science.oregonstate.edu/>) and speaking with the faculty directly. When you have narrowed your search for a lab, make appointments with the faculty members and discuss your interests. You are expected to find a lab in which you will do lab research each term. Make arrangements as far in advance as possible. Some labs may require at least 1 term advance notice before a rotation is possible.

For a Ph.D. student who expects to be here 4 to 6 years, lab rotations probably have little impact on the length of time it takes to complete their thesis research. However, for a Masters student, spending a whole year in rotation could significantly lengthen their stay.

The benefits of lab rotations are: 1) it exposes you to different projects, which may help you decide which lab to choose for your thesis lab; and 2) it exposes you to different techniques and scientific strategies. Consult with your rotational advisor(s) about their opinions on doing rotations.

**Your thesis research is the most important, and probably the most challenging part of your educational program. It is to your advantage to commence work on your thesis research as soon as possible.** Research projects take time to develop, and it is often surprising to students how much time and effort it takes to make progress on a lab research project. During your first year you should work to secure a commitment from one of our faculty members to support you both scientifically and financially. The sooner you get started on your thesis research, the sooner you will be finished with the most important part of your educational program.

### **3. Major professor**

After a student is accepted into a research lab, the professor in charge of the research lab is designated the major professor (also referred to as the thesis advisor). This is done by submitting your program form to the graduate school. The major professor helps the student decide which courses should be taken, and helps the student get started with a research project. The major professor advises the student on academic matters, such as the selection of thesis committee members, and is responsible for evaluating the student's performance.

### **4. Thesis committee**

After a major professor is selected, the student must choose other faculty members to serve on the thesis committee. For Masters students, 4 committee members are selected, usually in the first or second term, but no later than before the completion of 18 credit hours. For Ph.D. students, 5 committee members are selected, usually in the second or third term, but no later than the end of one calendar year after starting their study (or the fifth term of study if the student has no MS). The thesis committee helps you plan and approves your educational program. The committee members act as your advisors, and will meet with you to review your progress. The committee is also charged with approving your preliminary exam (Ph.D.) proposal topic, evaluating your preliminary exam (Ph.D.) proposal, conducting and evaluating your oral preliminary exam (Ph.D.), and conducting and evaluating your final thesis defense.

### **5. Program meeting**

You are required to convene a thesis committee meeting to plan the courses that you will take for fulfillment of your degree requirements. This is called a program meeting. The Microbiology Department requires that Masters students and PhD students with an MS hold their first committee meetings and file their approved programs by the end of their second term. Ph.D. students without an MS must hold their first committee meetings and file a program of study by the end of their first year. The meeting also includes an outline and discussion of your proposed thesis project.

### **6. Teaching requirement: (1 term)**

All students are required to be a teaching assistant for one term. This requirement may be fulfilled anytime during their graduate program, with the approval of the Graduate

Committee Chairperson. Because it is often difficult to place GRAs in a GTA position, students are advised to make arrangements well in advance (as much as one year). Additionally, a one-term notice is required to vacate a GTA position. This notice must be submitted in writing to the Head of the Department.

#### **7. Public presentation requirement**

All Ph.D. students are required to present the results of their research on two occasions. One presentation may be at a national meeting, and the other must be a departmental seminar (this may be the final thesis defense). Masters students fulfill their one required presentation at their public defense of their thesis. All students are encouraged to present their work more than the minimum requirement. Opportunities for poster presentations occur annually at the departmental winter term recruitment and fall CGRB conference.

#### **8. Microbiology Seminar Series**

Offered every 2nd Thursday of the month at 3 p.m. in LPSC 402. Announcements will be sent by e-mail and posted on the bulletin board outside the departmental office. All students are expected to attend.

#### **9. Other Components of your educational experience**

- PRIPS: This optional series of presentations given by a group of labs with interests in infectious diseases and medically-related research. The group meets on alternate Thursdays at noon-1:00 PM, Dryden Hall 213. Members from each lab take turns presenting their data that is hot-off-the-bench. The presentations and discussions are informal, and attendance is encouraged for those with interest. PRIPS is organized by Dr. Mahfuz Sarker (737-6918).
- Other Seminars: Other departments and graduate programs also sponsor seminars, and you are encouraged to attend those that interest you. Contacting the departments and programs of interest and having your e-mail address included in their contact list will help you know when there is a seminar that interests you. Other departments and programs of interest: Veterinary Medicine (Carolyn.cowan@oregonstate.edu) every Tuesday at noon; Molecular and Cellular Biology Program (737-3799), about 1 per month usually held in ALS 4001; Integrative Biology (tresabowlinsalleng@oregonstate.edu), every Monday at 3:30 pm in ALS 4001.
- CGRB conferences: Each year the Center for Genome Research and Biocomputing (CGRB) at OSU hosts two conferences, one in the fall and one in the spring. Seminars are presented by OSU faculty and scientists from outside OSU. Graduate students and faculty present posters of their work. More info: <http://cgrb.oregonstate.edu/>
- Grad MSA: The Graduate section of our Microbiology Student Association (MSA) organizes a journal club and offers a variety of social events, including excursions and weekend trips.

#### **10. Annual meeting with your graduate committee and submitting a report**

Every student is required to meet with his/her graduate committee at least once per year and submit a progress report to the chairman of the graduate committee (Dr. Geller). This

must be done before you can register for winter term classes. Download the form from our departmental web site.

### **11. Ph.D. Qualifying Examination (Preliminary Exam)**

Overview. As outlined by the [Graduate School](#), to be admitted for the doctoral degree, Ph.D. students must pass a comprehensive Preliminary Examination conducted by the Graduate Committee. The purpose of this exam is to determine the students' understanding of their major and minor fields and to assess their capability for research. This exam must comply with the policies and requirements of the Graduate School.

The exam for the Microbiology Ph.D. degree includes two parts: (1) a written research proposal on a topic that is distinct from the student's thesis research, followed by (2) an oral examination that features a presentation and then questions on the proposal topic. There will also be questions on more general topics drawn from the student's coursework and/or general area of thesis research. The Preliminary Examination is best taken after about two years, near the completion of the coursework on the Program of Study.

Scheduling the Preliminary Exam. The committee is contacted for:

- (1) Agreement on the research proposal topic
- (2) Setting the target date for completion of the written proposal
- (3) Acceptance of written proposal
- (4) Arrangement of a date, time, and place for the exam

Written Proposal. Students must write a proposal on an approved topic.

- To select a topic, the student will provide the committee with up to 3 titles and brief summaries of each.
- The topic may be on anything except the student's thesis project and is at the discretion of the committee.
- The committee must approve the topic with no more than 1 dissenting vote (email votes are acceptable).
- Unless otherwise specified by the committee, the proposal shall be based on the format of an NSF postdoctoral proposal. The format and length should be discussed with the committee; a general guideline follows.
- The length shall be a minimum of 5 pages (single-spaced, not including references).
- The proposal should include the following sections:
  - Specific aims
  - Background and Significance
  - Research Design and Methods
  - Literature cited (not included in the page limit)
- Within these sections, the committee will be looking for the following components:
  - Clearly stated research problem
  - Clearly developed, testable hypothesis
  - Focused experimental aims
  - Contingency plans for aims/objectives
  - Appropriate experimental design
  - Appropriate data analysis methods
  - Justification for, and impact of, the proposed research
  - A realistic project timeline

- The proposal should be submitted to the committee within the specified period after the committee has approved the topic (typically 4-6 weeks). The individual committee members must review the proposal and determine if the written proposal is acceptable for an oral exam defense. This review should take place within 1 week of submission.
- In the event revisions are required (i.e., the proposal is judged as being insufficiently developed to proceed with the oral exam), the student will have 4 weeks to modify and re-submit the proposal to the committee for a second decision.
- The student must schedule the oral exam within one week of the decision to accept the proposal.

Oral Examination. The exam is scheduled with the Graduate School using the [Exam Scheduling Form](#).

- The oral exam must be at least 2 hours in length and is typically up to 3 hours long. The oral exam covering the thesis proposal should constitute about half of the exam time.
- All members of the graduate committee should be physically present at the required graduate exam (for exceptions, see [Remote Participation](#) requirements).
- The defense of the proposal should include a presentation of the proposal by the student (20-30 minutes), followed by questions from the committee members that are answered by the student.
- Approximately half of the exam will be devoted to open questions
  - (a) The open questions may include anything related to science or the training of the student that the committee members deem relevant.
  - (b) It is recommended that the candidate practice answering questions with their advisor, committee members and/or other students.
- The decision to pass the individual is subject to the rules of the Graduate School, which gives the committee the options (i) to pass, (ii) not to pass and to terminate the student's work, (iii) not to pass and to allow a re-examination, or (iv) to recess and re-convene within two weeks.
- The decision will be based on the [Scoring Guide/Rubric](#) form for the Ph.D. Preliminary Exam. The scoring includes these criteria:
  1. Problem Definition and relationship to previous research in the literature: Stated the research problem, and its impact, clearly in the context of existing literature, providing justification for undertaking the research.
  2. Solution Plan: Provided a sound plan for applying appropriate research methods/tools to solving the defined problem. This should include well-developed research aims/objectives, hypotheses, hypothesis testing, and a sound plan for analyzing and interpreting research results/data.
  3. Broader Impact: Demonstrated awareness of broader implications of the proposed research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.
  4. Quality of Written Communication: Communicated research proposal clearly and professionally in written form.
  5. Quality of Oral Communication: Communicated research proposal clearly and professionally in oral form.

6. Critical Thinking and Mastery of General Knowledge: Demonstrated capability for independent research in microbiology and preparedness in core disciplines relevant to students' own research

It is the responsibility of the student and major professor to provide the Scoring Guide for each graduate committee member and of the major professor to explain its use in documenting the assessment of the student. The committee will discuss the student's performance (with specific reference to rubric items) with the student at the conclusion of the exam.

The major professor will collect the completed forms for filing in the Microbiology office.

**g. Description of the requirements for the final defense (or other approved alternative summative assessments in lieu of final oral exams for non-M.A. or non-M.S. master's degrees)**

**Final Oral Examination**

- Both Ph.D. and M.S. candidates must pass a final oral exam. This exam must comply with the policies and requirements of the Graduate School (<https://gradschool.oregonstate.edu/progress/required-examinations>). The Graduate Committee will conduct the final oral examination. For Ph.D. candidates, the examination committee will consist of the same members as for the Preliminary Examination, although substitutions may be made if approved by the Program and the Graduate School. [These guidelines will help you through the process](#). As described above, Masters students do not take a preliminary oral exam.
- The student must contact members of the committee to arrange the date, time and place, **then schedule the exam with the Graduate School not less than two weeks before the examination**. One copy of the pre-text pages of the [thesis](#) must be submitted to the Graduate School when scheduling the exam. Examination copies must be distributed to **all** committee members two weeks prior to the examination. All members of the graduate committee should be physically present at all required graduate exam (for exceptions, see the [Remote Participation](#) requirements).
- The first part of the exam is the thesis presentation portion, which is open to all interested parties. After the thesis seminar, the committee and student will continue in closed session to examine the thesis and its broader relationship to microbiology.
- The decision on the outcome of the exam will be based on a [Scoring Guide](#)/Rubric Sheet provided by the student and the major professor for the Ph.D. thesis defense. After the major professor explains how the guide will be used, each graduate committee member will be asked to use the form in documenting their assessment of the student. At the conclusion of the exam the committee will discuss the student's performance (per the Scoring Guide). The major professor will collect the completed forms for filing in the Microbiology Office.

**h. Proposed timeline to degree completion**

**Ph.D.**

1. End of first year: Form a dissertation committee and have program of study approved.
2. By the end of second year: Fulfill the one-term GTA requirement

3. End of second year: Complete preliminary written and oral exam and advance to candidacy
4. Third, fourth, and fifth year: Conduct thesis research and fulfill public presentation requirement
5. Fifth year or later: Write dissertation and pass final oral examination to complete degree

#### **M.S.**

1. End of second term: Form of a thesis committee and have program of study approved
2. By the end of second year: Fulfill the one-term GTA requirement
4. Second year: Conduct thesis research and write thesis document
5. End of second year: Pass final oral examination to complete degree

#### **i. Committee membership**

##### **Graduate Council Representative**

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

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

##### **Policy on remote participation and 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](#). This process will take at least several weeks and should be initiated accordingly. Committee structure is

evaluated when your program of study is received by the Graduate School and when you schedule your formal examination(s).

**i. Program/department specific funding opportunities (GTA, GRA, fellowships, awards, travel grants, etc.)**

**Value and Cost of Graduate Education**

- The standard Microbiology Program stipend for the 2017/2018 academic year is \$24,000. GTA and GRA appointments include 100% of the tuition, 88% of health insurance, and most student fees (total value of \$42,852). Students are responsible for the following costs: \$300 (one time matriculation fee due in the first term of enrollment); \$62.57 [miscellaneous fees](#) per term (the remaining \$430 is paid through the GTA/GRA appointment); and \$48.77 per month for health insurance (12% of health insurance is covered by students). Note: Costs may change annually.
- Graduate Teaching Assistantships (GTAs): We offer up to 6 GTA positions each year on a competitive basis. The GTA appointment involves teaching in laboratory classes, helping with lab prep, and grading tests.
- Graduate Research Assistantships (GRAs): Students may receive GRA support directly from the grant of their major professor. Students may enter the program with a GRA, and are typically supported by a GRA after their first year.

**Graduate Scholarships and Fellowships**

- Application for Department of Microbiology scholarships/fellowships requires the submission of two letters of recommendation in addition to the [Microbiology Graduate Scholarship/Fellowship Application](#).
- Scholarships are awarded annually on a competitive basis, with typical awards of \$500-\$2,000. Eligibility varies depending on the particular award, and the number of awards given each year is dependent upon funding.
- Fellowships are awarded on a competitive and/or a needs basis. Typical awards cover a stipend for one to three terms with tuition remission. Department of Microbiology scholarships and fellowships are made possible by donations provided by alumni, faculty members, and other donors.

APPLICATION DEADLINE - FEBRUARY 1, 2018

**Individual departmental scholarships and fellowships**

- **Margaret & Charles Black Scholarship:** The Margaret and Charles Black Scholarship Fund provides an annual scholarship award to an Oregon State University graduate student in microbiology who has demonstrated excellence in their graduate studies. Nominees must be Microbiology graduate students with a distinguished record of academic performance. (Cash award given when available.)
- **John L Fryer Fellowship:** The friends and family of John L. Fryer have established the John L. Fryer Fellowship Fund to honor and recognize Dr. Fryer's scholarship and the years he dedicated to the study of infectious diseases of fish. The purpose of the John L. Fryer Fellowship will be to provide support to graduate student(s) at OSU involved in research on the infectious diseases of fish (finfish or shellfish) (Stipend & tuition or cash award).
- **Dick & Toshi Morita Scholarship:** Nominees must be Microbiology graduate students.

Recipients must meet the following criteria: graduate student; microbiology major/focus; and demonstrates financial need. The nomination should document the student's academic record and other scholarly accomplishments. The application should include at least two letters of recommendation from faculty. (Cash award given when available.)

- **Joan Countryman Suit Scholarship:** Established by Joan Countryman Suit. Covers summer fellowships for Microbiology Graduate students. (Stipend).
- **Sheila van Zandt Scholarship:** Deadline March 1. The intent of this award is to promote collaboration between a graduate student and undergraduate student. Application is by a graduate/undergraduate pair separate from other Department of Microbiology scholarships. This scholarship is for an undergraduate/graduate student pair with one proposal submitted between the two of them. The award is for \$1800 (with a requirement of matching funds from the lab). The students give a presentation at the spring symposium (or an acceptable alternative)
- **Harriet M. Winton Scholarship:** This scholarship was established by Mrs. Harriet Winton in appreciation to Dr. J.L. Fryer for assisting in graduating her son, Dr. James R. Winton, in the study of Diseases of Pacific Salmon from the Department of Microbiology. This award will go to a microbiology graduate student in the study of diseases of fish. Financial need will be considered. (Cash award).

#### **Departmental fellowships requiring faculty nomination**

- **Oregon Department of Fish & Wildlife Fish Health Graduate Research Fellowship:** Provides graduate level training on a project that is relevant to the health of non-aquarium fish. This fellowship will support a graduate student conducting research towards an MS or Ph.D. in Microbiology or under the mentorship of a Microbiology professor at Oregon State University, with the intention of training towards and encouraging a career in fish health studies relevant to the wild fish popularities of Oregon.
- **Middlekauf Outstanding Graduate Teaching & Service in Microbiology:** Established by Ruth M. Tyson to honor the memory of her brother and to aid students in bacteriology. Mark Middlekauf received his degree in bacteriology from OSU in 1916, served in the Army during World War I and lost his life in France during that conflict.
- **Middlekauf Graduate Achievement in Microbiology:** Established by Ruth M. Tyson to honor the memory of her brother and to aid students in bacteriology. Mark Middlekauf received his degree in bacteriology from OSU in 1916, served in the Army during World War I and lost his life in France during that conflict.
- **Nicholas R. Tartar Graduate Student Fellowship:** Established by N.R. Tartar, M.D., a long-time friend of the early faculty in Microbiology. Awards are to go to qualified graduate students that meet residency requirements and are majors in the Department of Microbiology.

#### **Fellowships outside the department:**

- **Charles Eckelman Scholarship:** Established by Mrs. Clara Marie Eckelman at the time of her husband's death. This is to help students at OSU who are in a science beneficial to the dairy industry. Scholarship recipients must be enrolled in the College of Agricultural Sciences or in the Department of Microbiology with an emphasis on dairy industry. Qualified applicants in the following majors will be considered: Animal Sciences, Agricultural Business Management, Agricultural and Resource Economics, Food Science and Technology and Microbiology (through the Agriculture Research Foundation).

- (Nominated by the department).
- **MacVicar Animal Health Scholar Award:** The College of Veterinary Medicine, Biochemistry and Biophysics, and Microbiology Dean/Chair are serving as members of a committee to select a senior graduate student whose research is primarily concerned with animal health and welfare in its broadest sense and is interdisciplinary in approach, or a veterinarian in a residency program at OSU that includes research at the masters or doctoral level as part of the training program. Robert MacVicar was a past president of Oregon State University, and he and his wife, Clarice, had a strong interest in the health and welfare of animals. As a result, they established a fund to support research at OSU that impacts animal health and welfare in its broadest sense, that is interdisciplinary in its approach and represented by the areas of microbiology, biochemistry, and veterinary medicine. The award will be made as a \$5000 stipend, with an additional \$1000 for laboratory supplies and/or travel. Nominations of candidates should be made by faculty through their department chairs/heads. (Nominated by the department).
- In addition to departmental awards, scholarships, fellowships and assistantships are available through:
  - [College of Agricultural Sciences Scholarships/Fellowships](#)
  - [College of Science Scholarships/Fellowships](#)
  - [Graduate School Scholarships/Fellowships](#)
  - [Student Financial Aid office](#) provides information on general OSU scholarships and other financial assistance.

**j. Required program/degree milestones**

1. Approval of program of study by the thesis committee before the end of the first calendar year in the program
2. Annual meetings with graduate committee and submission of a progress report
3. Fulfillment of teaching requirement (one term as GTA) and public presentation requirement
4. Completion of a written and oral preliminary exam (Ph.D. candidates only)
5. Final examination consisting of a thesis seminar and an oral defense

**k. Role of the major professor**

As mentioned above, after a student is accepted into a research lab, the professor in charge of the research lab is designated the major professor (also referred to as the thesis advisor). The major professor helps the student decide which courses should be taken, and helps the student get started with a research project. The major professor advises the student on academic matters, such as the selection of thesis committee members, and is responsible for evaluating the student's performance.

**i. Process for identifying or changing major professor**

Prospective students often contact a professor and develop a relationship before applying to the program. The professor may ultimately become the major professor of the student upon enrollment at OSU, based on a mutual understanding between student and professor. The student is then generally a GRA paid by a grant from the major professor. Other students may enter the program without having identified a major professor. These students often conduct laboratory rotations and select a major professor by the end of their

last rotation (third term). Professors that accept students for lab rotations are generally open to serving as the major professor. Student and professor will have a meeting at the end of the respective rotation where perspectives are discussed. Formally, major professor status is confirmed by submitting your program form to the graduate school.

Students have the right to change major professors for several reasons, such as making changes in educational or career direction, or finding that their major professor is consistently unable or unwilling to abide by the responsibilities and obligations as a mentor and advisor. A description of the functions and behaviors of faculty mentors can be found at <http://gradschool.oregonstate.edu/faculty/graduate-mentoring/defining-graduate-mentor>. Students who choose to pursue a change in their major professor are responsible for identifying a new faculty member willing to serve in this role, as well as potentially reconstituting the thesis committee. Students must inform the graduate school of these changes.

**m. Process for filing program specific grievances and petitions**

The department follows the general grievance procedures as specified in point u below.

**n. Deadlines related to Program of Study, Exam Paperwork, etc.**

Please following the following [link](#) for the minimum deadlines as defined by the Graduate School. Programs can require a more rigorous set of deadlines. Students are expected to check with their program and the Graduate School regarding specific deadlines unique to the term and academic year they plan to complete their degree requirements.

**o. Process for measuring and communicating a review of satisfactory progress**

Satisfactory progress toward completing a graduate degree in the Microbiology Graduate Program requires:

- An annual assessment showing adequate progress in coursework and thesis research as evaluated by the major professor and the rest of the student's graduate committee.
- Maintaining a GPA of 3.00 or better for all courses taken as a graduate student.
- Successfully passing relevant exams as required by the Graduate School and as outlined in the Microbiology program guidelines online. This includes a preliminary exam at the end of the second academic year for Ph.D. candidates, and a final oral examination for both M.S. and Ph.D. candidates.
- Completion of one term of service as a Graduate Teaching Assistant.
- For Ph.D. students, presentation of two public research seminars (one may be the final defense, and the other must be a poster presentation or talk at a conference).
- Timely compliance with all Graduate School and Departmental requirements for thesis committee formation, annual committee meetings, annual progress report completion, and other activities expected of a student, scholar and citizen.

## Microbiology Graduate Program Plan for Assessment of Graduate Student Satisfactory Academic Progress

- Early in their program (e.g., during their first term of enrollment or, in case of rotation students, upon joining the major professor's lab) students work with their major professor to **form a thesis committee**.
- Students will have a **Thesis Committee Program Meeting** by the end of their second term (M.S. students and Ph.D. students with Masters degree), or by the end of the first year of graduate enrollment (Ph.D. students without a Masters degree). The Program Meeting will cover two aspects: the proposed coursework (Program of Study) and the proposed research (Thesis Outline). This meeting will include all members of the committee. A Program of Study form will be completed during the meeting. Students prepare and submit to their committee an outline of the thesis project. This outline must be sufficiently detailed to enable the committee to evaluate the progress of the student on a yearly basis.
- Students are required to **meet yearly with their Graduate Committee** to evaluate their progress. Typically, the meeting begins with a summary presentation of the student's research findings.
- An assessment of student academic progress is made by the student and the student's major professor by completing the Annual Graduate Student Progress Report Form (see attachment below). Satisfactory academic progress will be judged based on both timely completion of courses on the Program of Study, and progress in completing research objectives. The form must be returned to the Microbiology Graduate Student Advisor by the end of December each year. Registration for winter term classes requires departmental approval, which will be given upon receipt of the completed progress report

### p. 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 [catalog](#) 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 in 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).

### q. Minimum Course Loads

Course load requirements for graduate students are established by the Registrar and the Graduate School. You are considered a "full-time" graduate student if you are registered for 9–16 credits in a given academic term. All graduate students in Microbiology are generally

full-time students. You are considered a “part-time” graduate student if you have less than nine credits. If you are a degree-seeking student, you must be registered for a minimum of three graduate credits in any term you wish to be enrolled and access university resources, including the term of the final defense.

Students are responsible for staying current on course load requirements that may supersede the Graduate School requirements (i.e., international, financial aid, veteran’s)

r. [Continuous Graduate 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.

s. **Benefits: Health insurance, sick leave, and [Leave of Absence](#)**

Graduate Assistants with an appointment 0.30 to 0.49 FTE will be automatically enrolled in employee-only coverage. Dependents can be enrolled for additional cost. OSU contributes 88% to the monthly premium. GRAs on external grants are generally covered in full. Students are also eligible for sick leave with pay. At 0.49 FTE, sick leave accrues at a rate of 10 hours per 13-week appointment period (equivalent to 255 hours). Students are not eligible for paid vacation. Further details can be found in the Collective Bargaining Agreement between the CGE and OSU:  
<http://hr.oregonstate.edu/sites/hr.oregonstate.edu/files/ercc/gradstud/2016-2020cba.pdf>

In addition, Leave of Absence status 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/Intent to Resume Graduate Study 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.

**t. 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.

**u. Grievance Procedures**

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](#) 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.

**v. [Grade Requirements](#)**

A grade-point average of 3.00 is required: 1) for all courses taken as a degree-seeking graduate student, and 2) for courses included in the graduate degree or graduate certificate program of study. Grades below C (2.00) cannot be used on a graduate program of study. A grade-point average of 3.00 is required before the final oral or written exam may be undertaken. Enforced graduate-level prerequisite courses must be completed with a minimum grade of C. Programs may have more stringent grade requirements than those prescribed by the Graduate School.

**w. 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.

**x. 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 [Student Conduct Code](#). 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.

**y. Academic Dishonesty**

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.

z. **Office of Equal Opportunity and Access**

The OSU Office of Equal Opportunity and Access (EOA) is responsible for overseeing compliance with civil rights and affirmative action laws, regulations, and policies, to ensure equitable and inclusive environments for all Oregon State University community members. EOA serves as the University's Title IX and Americans with Disabilities Act/Section 504 coordinating office.

EOA 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 reject of such conduct by an individual is used as the basis for employment or 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 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.

aa. **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.

**Addendum I: Scoring rubrics for Ph.D. preliminary examination, M.S. and Ph.D. thesis defenses**

**Scoring Guide (Rubric) for Graduate Learning Outcome Assessment  
Ph.D. PRELIMINARY EXAM in Microbiology**

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

Title of Research Proposal: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition and relationship to previous research in the literature:</b> Stated the research problem, and its impact, clearly in the context of existing literature, providing justification for undertaking the research.			
2. <b>Solution Plan:</b> Provided a sound plan for applying appropriate research methods/tools to solving the defined problem. This should include well-developed research aims/objectives, hypotheses, hypothesis testing, and a sound plan for analyzing and interpreting research results/data.			
3. <b>Broader Impact:</b> Demonstrated awareness of broader implications of the proposed research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			
4. <b>Quality of Written Communication:</b> Communicated research proposal clearly and professionally in <b>written</b> form			
5. <b>Quality of Oral Communication:</b> Communicated research proposal clearly and professionally in <b>oral</b> form			
6. <b>Critical Thinking and Mastery of General Knowledge:</b> Demonstrated capability for independent research in microbiology and preparedness in core disciplines relevant to students' own research			

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 6 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.*

*Attachment 2*

**Scoring Guide (Rubric) for Graduate Learning Outcome Assessment  
MS DEFENSE EXAM\* in Microbiology**

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

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

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition and relationship to previous research in the literature:</b> Stated the research problem, and its impact, clearly in the context of existing literature, providing motivation for undertaking the research			
2. <b>Solution Plan:</b> Has applied appropriate research methods/tools to solve the defined problem and has described the methods/tools effectively			
3. <b>Results:</b> Analyzed and interpreted research results/data effectively; responded to unforeseen technical problems or unexpected results appropriately.			
4. <b>Quality of Written Communication:</b> Communicated research results clearly and professionally in <b>written</b> form			
5. <b>Quality of Oral Communication:</b> Communicated research results clearly and professionally in <b>oral</b> form			
7. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study and expertise in the area			
6. <b>Conclusion and Broader Impact:</b> Summarized what new information/insight the thesis work produced. Demonstrated awareness of broader implications of the concluded research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			
8. <b>Publications:</b> Journal or conference publications have resulted (or are anticipated) from this research			
9. <b>Requirement:</b> Has completed at least one term as GTA	<b>Number of terms as GTA:</b>		

**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 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.\*** Note that this form may be used for both THESIS and NON-THESIS MS Defense exams.

**Scoring Guide (Rubric) for Graduate Learning Outcome Assessment  
Ph.D. THESIS DEFENSE EXAM in Microbiology**

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

Title of Research Proposal: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition and relationship to previous research in the literature:</b> Stated the research problem, and its impact, clearly in the context of existing literature, providing motivation for undertaking the research			
2. <b>Solution Plan:</b> Has applied sound state-of-the field research methods/tools to solve the defined problem and has described the methods/tools effectively			
3. <b>Results:</b> Analyzed and interpreted research results/data effectively; responded to unforeseen technical problems or unexpected results appropriately.			
4. <b>Quality of Written Communication:</b> Communicated research results clearly and professionally in <b>written</b> form			
5. <b>Quality of Oral Communication:</b> Communicated research results clearly and professionally in <b>oral</b> form			
6. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study and expertise in the area			
7. <b>Conclusion and Broader Impact:</b> Summarized what new information/insight the thesis work produced. Demonstrated awareness of broader implications of the concluded research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			
8. <b>Publications:</b> Journal or conference publications have resulted (or are anticipated) from this research			
9. <b>Requirements:</b> Has completed at least one term as GTA and one public presentation in addition to the defense	<b>Number of terms as GTA:</b> <b>Number of public presentations:</b>		

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

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.  
Attachment**

**Addendum II: Annual progress reports for M.S. and Ph.D.**

**ANNUAL GRADUATE STUDENT PROGRESS REPORT  
MS PROGRAM IN MICROBIOLOGY, OREGON STATE UNIVERSITY**

<b>Student Name</b> _____	<b>Date</b> _____
Please consult with your major professor and complete this form. Return a signed copy to Professor Bruce Geller, Graduate Student Advisor.	
1. Have you formed and met with your graduate committee and filed the Program of Study with the Graduate School?	
Yes _____	No _____
2. Have you met with your committee this year to update your study and research progress and discuss your proposed experiments?	
Yes _____	No _____
3. Your research requires a clear hypothesis or goal. You should give some thought to how the experiments you are doing and planning will be published. Have you discussed with your major professor and/or committee your plan for your first or next paper; are you focused on a plan that ends with a publication?	
Yes _____	No _____
<b>4. Teaching Requirement</b>	
There is a Microbiology Program requirement that all graduate students experience one term of teaching by serving as a Graduate Teaching Assistant. Have you fulfilled this requirement?	
Yes _____	No _____
<b>Signature</b> _____	<b>Date</b> _____
<b>Major Professor</b> _____	<b>Date</b> _____

**ANNUAL GRADUATE STUDENT PROGRESS REPORT  
PHD PROGRAM IN MICROBIOLOGY, OREGON STATE UNIVERSITY**

**Student Name** \_\_\_\_\_

**Date** \_\_\_\_\_

Please consult with your major professor and complete this form. Return a signed copy to Professor Bruce Geller.

1. Have you formed and met with your graduate committee and filed the Program of Study with the Graduate School?

Yes \_\_\_\_\_

No \_\_\_\_\_

2. Have you met with your committee this year to update your study and research progress and discuss your proposed experiments?

Yes \_\_\_\_\_

No \_\_\_\_\_

**3. Preliminary Qualifying Exam**

The Prelim Exam should be taken after you have completed most of your courses and before you are involved in your research. Part of the test will cover your general knowledge from lecture courses and if you do not pass you cannot continue. The intent is that you qualify to complete a Ph.D. course of research. Please distribute the "Guidelines for the Microbiology Program Prelim Exam" to each member of your committee when you provide them with your written proposal.

There are two parts to the exam. The written part is in the form of a research proposal. The oral exam will cover the research proposal and general knowledge from the courses you have taken.

Have you completed your preliminary exam?

Date \_\_\_\_\_

No \_\_\_\_\_

4. Your research requires a clear hypothesis or goal. You should give some thought to how the experiments you are doing and planning will be published. Have you discussed with your major professor and/or committee your plan for your first or next paper; are you focused on a plan that ends with a publication?

Yes \_\_\_\_\_

No \_\_\_\_\_

5. When will you finish your degree?

Date \_\_\_\_\_

6. When does your major professor anticipate you will finish your degree?

Date \_\_\_\_\_

**7. Teaching Requirement**

There is a Microbiology Program requirement that all graduate students experience one term of teaching by serving as a Graduate Teaching Assistant. Have you fulfilled this requirement?

Yes \_\_\_\_\_

No \_\_\_\_\_

**8. Presentation Requirement**

There is a departmental requirement that all PhD students give two presentations during their graduate education. One of these may be the thesis defense, but the other must be a public presentation outside of the department. Your goal should be to present at least one poster or talk at a national scientific conference. Have you presented at a national scientific conference?

Yes \_\_\_\_\_

No \_\_\_\_\_

**Signature** \_\_\_\_\_

**Date** \_\_\_\_\_

**Major Professor** \_\_\_\_\_

**Date** \_\_\_\_\_