

Ecology and Evolution (EE) Program Description

The graduate program in Ecology and Evolution (EE) provides students training in scientific research that allows them to gain a better understanding of the ecology and evolution of organisms. Graduates of the program are well prepared to undertake further graduate studies, research as university faculty members or applied scientists in the broad field of biology, including conservation biology and wildlife biology. The program has special strengths in population genetics, physiological ecology, aquatic ecology, animal behavior, avian ecology, and plant ecology.

EE Admission Policy

Students must apply by the 1 December deadline to be given priority consideration for admission during the following fall semester.

Admission criteria

Admission to the graduate program is competitive and based on Graduate Record Exam scores, GPA (overall and in biology courses), courses taken, letters of recommendation, other evidence of scholarly achievement, evidence of research experience (including papers published and talks or posters presented), and area of research interest indicated in a statement of purpose. Students admitted into the EE grad program usually far exceed the minimum requirements specified by the Graduate School. EE requires a minimal GPA of 3.0 in undergraduate coursework in biology and a minimal score of the 60th percentile in each of the three sections of the GRE (verbal, quantitative, and analytical). However, most admitted students achieve scores that are well above these minimal standards (e.g. 90th percentile or higher). Also, a prospective student **must** have a faculty member agree to serve as their advisor before they are granted admission. Thus, it is recommended that students contact faculty directly either before or as part of the application procedure; many well-qualified students are not offered admission because they have not secured the support of a faculty member. Those whose first language is not English must exceed a score of 580 on the paper-based TOEFL exam, 237 on the computer-based version, or 92 on the internet-based version.

Admissions procedure

As applications are received, the Graduate Program Coordinator organizes each student's materials, entering pertinent information (GPA, GRE or TOEFL scores, area of specialization, school from which they graduated, degree program they wish to enter, and faculty member(s) with whom they have been in contact) into a spreadsheet.

Between the application deadline and the end of January, the Graduate Admissions Committee reviews all applications. A review sheet is used to evaluate each applicant with respect to several categories of performance--academic criteria (GPA and GRE scores), publications and presentation of papers at meetings, pertinent experience, letters of reference, and a statement of purpose. With numerical sums as a guide, applicants are then grouped into one of four categories: (1) outstanding, nationally competitive candidates who should be offered TA support; (2) very good candidates who qualify for TA support, but only after the top candidate pool has been exhausted; (3) meet minimum standards, but Divisional support not recommended; and (4) unacceptable.

The committee then combines this information with the other spreadsheet information and asks the faculty to review the spreadsheet, to review the files of potential advisees, and to begin discussions with the student candidates if they have not already done so (most applicants will have initiated correspondence with their prospective advisors long before this time). Faculty members then inform the Admissions Committee of any student(s) they agree to advise, and indicate the level of their enthusiasm for the candidates.

Selected candidates will be invited to the University of Montana for an interview weekend, generally arriving on a Thursday and departing the following Sunday. This interview event typically takes place around the first or second week of February. During this weekend, candidates interact extensively with the faculty, with their potential advisor, and with our current graduate students. At the end of this period the faculty meet to decide on a priority ranking for offers.

As soon after 15 February as possible, letters are sent to students who will not be accepted, and admission with TA support (see below) is offered to the top candidates, with attention given both to the overall ranking of the student applicant, and also to students sponsored by younger faculty who are building graduate programs, or to faculty who do not already have several students funded through DBS. Qualified students will be kept on hold until all of the TA support has been offered and accepted; after that time, they are sent rejection letters.

EE does not allow probationary admission. Once rejected, a student may re-apply for admission during the subsequent year with a \$20 reapplication fee. In such instances, however, chances of admission are not any better than before unless the student's admission materials have changed significantly.

TA support

All TA awards are competitive and are based on the admission criteria outlined above. By February 1, the chairperson will have determined how many TA positions will be available for the following fall. This is accomplished by tallying the number of currently enrolled students that will be funded on TA positions during the upcoming academic year and subtracting this from the total pool of available TA lines.

We encourage students with TA's to move on to research assistantship (RA) support when it is available, as it frees TA lines that can be used to recruit new students into the program. However, the TA lines in these instances do not "carry over." That is, they are not added to the end of the period of student support. Unless otherwise indicated in the admission contract letter, all incoming students are guaranteed the same 5-year commitment of support, to be made up of TA, RA, and/or other fellowship support. Students admitted with a TA may move on to a RA as early as their first semester in the program. Students considering moving from a TA assignment to RA support should notify the EE Program Director or Janean at least one semester prior to such a change: 1 January for changes anticipated the following Fall, 1 September for anticipated changes the following Spring, so that appropriate re-scheduling of course assignments for the remaining TA's can be made.

Response to an offer of TA support

Though offers of a teaching assistantship may be made as early as 1 February, students are under no obligation to respond to this offer prior to April 15. However, if there is no response to an offer after a 2-week period of time, the EE faculty may withdraw the offer so that it can be made to another student. If

a student accepts an offer before April 15, and subsequently desires to withdraw that acceptance, the student may do so by submitting a written resignation of the offer at any time through April 15. After April 15, the student should not accept another offer without first obtaining a written release from the institution to which a commitment has been made.

EE Targets and Deadlines for Graduate Degree

Selection of major professor and advisory committee	Target: First semester in program Deadlines: M.S. students: end of first semester Ph.D. students: middle of second semester
Approved Coursework Form	M.S. students: end of first semester Ph.D. students: 3 weeks before end of second semester
Approved thesis proposal, research budget, and research schedule	M.S. students: Target: First semester in program. Deadline: by 1 April of the first year Ph.D. students: (a) Preliminary research proposal approved by April 1st of the first academic year; (b) Research proposal approved by April 1st of the second academic year
Talk given in EE noon seminar	Once per year
Ph.D. Comprehensive Exam	Target: Second semester of second academic year. Deadline: End of fall semester during 3rd year.
Admission to Candidacy	M.S. students: Application must be filed at least 6 months prior to awarding of degree Ph.D. students: Application must be filed after completion of the Ph.D. comprehensive exam and 6 months before degree award
Thesis or dissertation draft, approved by major professor, made available to student's Advisory Committee	A month prior to defense
Committee-approved thesis/dissertation made available to EE faculty & Graduate School	7 days prior to defense

Graduate Advisor and Advisory committee

Formal appointment

A student's faculty advisor (major professor) is the faculty member who agreed to serve as the student's advisor during the admissions process. Through discussion and mutual agreement, the student and advisor will select an advisory committee. The student is responsible for approaching these persons and requesting that they serve on the committee. The major professor then submits the names of potential committee members to the Associate Dean of DBS for approval (using the DBS Graduate Committee Appointment form). The Associate Dean then forwards the names to the Graduate Dean for formal approval. All formal committee appointments are made by the Graduate Dean. This appointment is subject to change, but should represent the firmest commitment possible. The appointment of a permanent advisor and committee should occur by 1 November during the student's first semester for M.S. students and by 1 February for Ph.D. students.

Role of advisory committee

The role of a student's advisory committee is to provide the intellectual expertise necessary to enable a student to devise and implement high caliber research within their area of interest. As a member of a student's advisory committee, faculty have the following obligations. (1) Committee members must meet with the student as a committee at least once each academic year. The results of each committee meeting will be placed into the student's file using the EE Committee Meeting Report form. The function of this annual committee meeting will be to review student progress, to provide substantive input into the intellectual development of a research proposal, to provide guidance regarding the implementation of research, and to ensure that student research meets a high standard of scholarship. It is the responsibility of the advisor and the graduate student to schedule and coordinate these annual meetings (see below). (2) Committee members must read and comment on research proposals and dissertation chapters in a timely manner. (3) Committee members must communicate to students what their expectations are regarding performance standards on the comprehensive exam, and clearly outline the general areas/topics in which they expect students to have competency. (4) Committee members are expected to attend and participate in the student's dissertation defense. EE committee members are expected to attend other seminars or presentations by the student scheduled as part of the program requirements.

Student-Advisor Interaction

It is the responsibility of the student, in consultation with their advisor, to construct an advisory committee according to program timelines, and to arrange annual advisory committee meetings. Significant interaction between students and advisor/committee members involves student submission and faculty review of written material (research proposals, thesis chapters, or other material on which they seek faculty input). Faculty recognize that their timely feedback is essential for students to progress through critical stages (proposals, thesis drafts, etc.) in the development of their research/graduate program, and that providing such input in a timely way is an important responsibility of the faculty advisor and committee members. At the same time, students must recognize that faculty face multiple competing demands and deadlines, and must schedule review of graduate student materials into the rest of their workload. Students should submit materials so that faculty have adequate time for review, and students have sufficient time to incorporate faculty feedback, before deadlines and target dates.

Students should scale the time available for review with the size of documents to be reviewed (an entire thesis requires more time than a thesis chapter). Students and faculty should develop clear understanding of expectations for such turnaround.

Open, frequent, and honest communication is the basis for positive working relationships between students and faculty advisors. Disagreement often can be traced to a failure to raise concerns or speak frankly about points of dissatisfaction as they arise; communicating about such issues in a productive and respectful way is an important part of professional life. Students should expect respectful, frank, and critical feedback on their academic performance and professional effectiveness, based on the academic judgments of the advisor and committee members. At the same time, faculty expect to hear from students about aspects of the faculty-student relationship that are counterproductive to student success.

Students are strongly encouraged to consult with their faculty advisor about concerns or problems at the earliest opportunity; indeed, discussion with the faculty advisor should be the first step in addressing any academic, research, or professional concern. Subsequently, unresolved issues should be discussed with a member of the student's advisory committee; students also may seek informal guidance from another faculty member. Students wishing to pursue an issue further should consult with the EE Program Director, or the current faculty ombudsman. Student-faculty interactions that grow to the stage of conflict, or unresolved student concerns about the caliber of faculty advisement, should be brought formally in writing to the attention of the EE Program Director. If they cannot resolve the issue, it should be taken to the DBS Associate Dean.

Committee composition

For purposes of committee membership, an EE faculty member is a UM tenure-line faculty member or UM Research faculty member who has their primary appointment in EE.

M.S. committees--must consist of at least three members; two must be EE faculty members (including the major professor) and one must be an Outside committee member. The Outside faculty member must be a UM faculty member with a primary appointment outside of EE. According to UM Graduate School regulations, the responsibility of this committee member is to ensure that the student is held to reasonable academic standards, that the student is treated fairly by all committee members, and that the student's progress is not unduly delayed by failure of committee members to act in a timely manner.

Ph.D. committees--must consist of at least five faculty members. At least three members must be from within EE, and one must be an Outside committee member. The Outside faculty member must be a UM faculty member with a primary appointment outside of EE. According to Graduate School regulations, the responsibility of this committee member is to ensure that the student is held to reasonable academic standards, that the student is treated fairly by all committee members, and that the student's progress is not unduly delayed by failure of committee members to act in a timely manner. The fifth member of the committee may be either a UM faculty member or someone from outside of UM who has been approved by the rest of the committee and the Graduate Dean as qualified by training, experience, and/or degree held to guide and evaluate the dissertation. Deviations from this must be approved by the Graduate School dean.

EE Coursework and Academic Standards

Necessary coursework

All incoming graduate students are required to take BIOB 594, a 1-credit seminar course, during their first year. This course involves reading and discussing papers by the weekly invited seminar speakers, and provides a forum for incoming students to discuss program expectations and policies relevant to navigating both graduate school and academia with the EE program director. Typically, this course will meet from 3-4 PM each Wednesday, immediately prior to the invited EE seminar. The faculty member and lab hosting the invited speaker will provide papers (written by the speaker or related to the topic that will be covered by the speaker) to the class, to serve as the basis for the weekly paper discussion. In addition, senior graduate students and/or postdocs from the host lab will plan to attend the discussion for that week, to provide valuable historical and biological context to the topic.

In addition to BIOB 594, there are two courses that all EE graduate students are required to take in their first and second years in the program – CORE I (BIOB 505) (offered Fall, Even Years), and CORE II (BIOB 506) (offered Fall, Odd Years). These 4-credit core courses cover fundamental topics in evolution and genetics, physiology/functional morphology, and ecology. Any additional course requirements will be made by student committees on a case-by-case basis.

By 1 November of the first semester in residence, each student must arrange a meeting to examine the student's coursework. For M.S. students, this meeting will be with the student's advisory committee. For Ph.D. students, this meeting will be with the student's faculty advisor and two additional EE faculty members who are likely to be appointed to the student's thesis committee. These faculty will consider the student's undergraduate background to identify any deficiencies based on coursework, GRE scores and committee interviews, and to formalize a coursework plan of study. These faculty will also guide the student in selecting courses to meet career or other educational goals and provide the necessary background for thesis research and desired area of expertise. A record of the recommendations of this meeting will be placed in the student's file on the EE Committee Meeting Report form. The final approval of the Committee Required Coursework form for Ph.D. students will occur in the spring semester of the student's first year in conjunction with the advisory's committee consideration of the student's preliminary research proposal.

Credit requirements

Master's students must complete a committee-approved program of 30 at least semester credits of graduate-level coursework. As many as 10 credits may be thesis (BIOB 599), and at least 10 credits of the non-thesis coursework must be at the 500 level or above. Ph.D. students must complete 60 semester credits of graduate-level coursework (as many as 20 may be dissertation, BIOB 699). The other 40 credits may include coursework, graduate seminars, or independent study (BIOB 596).

Excluding the required courses mentioned in the previous section, there are no further restrictions on the distribution of the remaining credits. However, while courses are repeatable, only a certain number of credits can count towards your degree from each course. The max credits for each course are as follows:

Course Number	Course Title	Max. Credits
BIOB 595	Special Topics	22
BIOB 596	Independent Study	8
BIOB 597	Research	12
BIOB 599	Master's Thesis	10
BIOB 695	Special Topics	10
BIOB 699	Doctoral Dissertation	20

Students may petition the Graduate School for the transfer of graduate credits into their graduate program at UM. After a semester of satisfactory work at UM in a graduate program, the student can ask their advisory committee to make a written request to the Graduate School to accept transfer credits. An official copy of the student's transcript of the courses for transfer and catalog course description should accompany the recommendation.

Academic standards

Graduate students must maintain a B average in courses taken for graduate credit, and no grade less than a C will be accepted toward any degree requirement. Letter grades must be obtained in all courses used to meet credit requirements except seminars, research, thesis, and dissertation, which are graded on either an N (continuation) or Pass/Not Pass basis. Pass grades are not included in grade point calculations but may apply toward degree requirements when earned in courses offered only on a Pass/Not Pass basis. Full-time graduate students without teaching assistantships must carry at least nine credits and no more than 16 credits per semester during the academic year. Teaching and research assistants must be enrolled in at least 9, and no more than 15 (TA) or 12 (RA) credits.

EE Continuous Registration and Leaves of Absence

The Graduate School requires that graduate students register for credits every fall and spring semester. The number of credits should be that deemed commensurate with use of facilities and faculty time. Students must register for a leave-of-absence if they do not plan to be continuously registered. Students who step out of the program for two or more semesters without such approval will be dropped from the program by the Graduate School. Re-admission is allowed through petition or reapplication only.

EE Seminars

EE Seminar Series

All faculty members and graduate students are expected to attend the seminar series (i.e., seminar attendance is mandatory). The purpose of this seminar series is:

1. to encourage the exchange of scientific ideas among EE members
2. to acquaint EE members with current research interests of others in the program; and
3. to provide a mechanism for learning about and improving one's oral communication skills

Participation in the weekly EE seminar series is an extremely important part of graduate education. M.S. students are required to present a 25-minute talk about their thesis research during their second year in

the program. Ph.D. students are required to present a 25-min talk about their proposed dissertation research during their second year in the program, and each year thereafter. Adequate time (20-min) should be left following these talks for discussion and thoughtful feedback from students and faculty. Finishing Ph.D. students will then present a 30 - 40-min defense talk about their dissertation research, which we suggest should typically be modeled as a “job talk.” Faculty members are expected to give a 40-min talk every other year; it is the responsibility of individual faculty members to make sure that they are scheduled for a seminar during the appropriate year.

To make presentation-related feedback more useful to students, two faculty, generally not on the student’s committee, will be appointed to act as “evaluators” at each talk. Prior to each graduate student seminar, the head of the noon seminar committee will appoint two faculty members, alerting both faculty and the presenting student. Both faculty will pay particular attention to the presentation — the science, as well as the structure, flow, clarity, quality of slides, delivery, etc. The student should then approach them sometime in the days immediately following the talk for feedback on what worked, what didn’t, and how best to improve things for the next time.

In the interest of fairness, and since faculty also need to keep practicing their own presentation skills, the afternoon-seminar coordinator will appoint two graduate student evaluators each time an EE faculty member gives a talk. These students will then provide feedback to the faculty member in the days immediately following the presentation.

EE Research Planning and Proposals

Formal research proposal

Each student is required to complete a formal research proposal that presents the theoretical and empirical framework within which the study has been designed and will be carried out. Specifically, the proposal should consist of a title, an introduction to the research problem, how the problem fits into a broader conceptual framework defined by existing literature, a justification of its importance, the specific objectives, methods (including details about design and proposed methods of analysis), a timetable, and a budget.

M.S. candidates are encouraged to obtain committee approval of a research proposal in their first semester in the program but no later than 1 April of their first academic year. Students must also present an oral defense of their thesis proposal to their committee. A student must pass this defense and have their research proposal approved before being allowed to begin their formal research.

Ph.D. students are encouraged to obtain committee approval of a preliminary research proposal in their first semester but no later than 1 April of their first academic year. The committee approval of the Committee Required Coursework form will be completed in association with approval of this pre-proposal. The final dissertation proposal must be approved by the student’s committee by 1 April of their second academic year. This proposal must be structured in the format of an NSF Dissertation Improvement Grant.

After approval by the committee, for both MS and Ph.D. students, a copy of the proposal signed by all committee members must be placed in the student's file.

In approving the proposal, the advisory committee agrees that successful completion of the project will be sufficient research for a satisfactory thesis or dissertation. Any substantive changes made after committee approval must be brought back to the committee for discussion.

Fuller description of components:

Pre-proposal

PhD students are encouraged to have a committee meeting by the end of their first academic semester to evaluate their pre-proposal. In advance of this meeting, the student will prepare a two-page proposal (including citations) in the format of a National Science Foundation Graduate Research Fellowship proposal. This document should describe the student's research ideas and their general methodological approach, with particular attention to the work's contribution to the broader field. This proposal will be evaluated for merit and feasibility without emphasis on specific methodological details, although students should generally demonstrate that the project is feasible. Thus, this meeting will provide an opportunity to focus on broad conceptual issues. The committee may suggest revisions and additional reading to the student at this point. This process is expected to generate a proposal that may be submitted to the NSF Graduate Research Fellowship program. The caveat is that the GRFP deadline is in October, so early action will be essential if it is to be submitted to the competition during the first fall.

The student should complete a committee-approved preproposal by the end of the first year at the latest.

Proposal

PhD students will have a committee meeting ideally by the end of the 3rd semester (typically Fall of second year) to evaluate the full proposal. MS students should complete the full proposal (no preproposal) by the end of the second semester. The proposal should be limited to eight single-spaced pages not including references, emphasizing aims, key hypotheses that emerge from a thorough review of existing literature, and supporting evidence, with a summary outline of methodology for the proposed work. Although the NSF DDIG program is now defunct, structuring the full proposal [according to DDIG requirements](#) would be appropriate. Students are strongly encouraged to begin working on this document well in advance, even starting in their first semester in the program.

Students are encouraged to view the proposal document as an evolving roadmap. For example, it is expected that knowledge gained from reviewer feedback on the written portion of comps, or unexpected research findings or opportunities, may lead to shifts in research direction or in how results are packaged into chapters. Such changes are expected, and as these situations evolve, the student should consult with their committee.

EE Comprehensive Exam (Ph.D. only)

Goal of the Comprehensive Exams

Comprehensive exams are required for PhD but not MS students. The exam will assess a student's depth of knowledge with respect to conducting research. This means: a) mastery of the student's area of

specialization (dissertation field); and, b) reasonable fluency in the three core areas of the Ecology and Evolution program: Organismal Function, Ecology, and Genetics and Evolution). Goal (b) prepares students to converse comfortably with a diverse array of faculty including seminar speakers and those in EE-like programs when they interview for post-doctoral and faculty positions. The comprehensive exam will be given in two parts (written and oral) and ideally should be completed by the end of the second academic year of the graduate program. Successful completion of the exam advances the student to candidacy.

Timing

Students are encouraged to take the comprehensive exam at the end of their second year, but it must be completed by the end of fall semester of the student's third year. In addition to the broader background in general areas of ecology, evolution and organismal function, the conceptual emphasis of the exam will be identified by the student's committee well in advance of the exam.

Committee composition

The comprehensive exam is conducted by a committee usually comprising the same faculty members as the student's advisory committee, except that the student's major professor cannot serve as chair of the comprehensive committee. The student and their major advisor are responsible to make arrangements to assign a chair. The committee chair will construct the written exam based in consultation with the other committee members and will ensure timely progress towards the oral portion of the exam. The written exam will be provided to all committee members for their comments before it is given to the student.

Format of Written Component

The written exam will consist of two or three questions and will be initiated early in the second semester of the second academic year in the graduate program soon after the committee meets (without the student) to determine the questions. The student's advisor should participate in formulating the questions. The questions will be broad but will lead to focused reading and learning in a format that requires significant synthesis. Soon after the committee meeting, the committee chair will communicate all questions to the student, and the student will then have 30 days to complete responses to them using all available academic resources.

The written answers should be in the format of short Review/Synthesis or Opinion papers for a journal like Trends in Ecology and Evolution. We recommend reading [this 2018 paper in Functional Ecology](#) on how to write a good review paper. The student is encouraged to confer with committee members for clarification on questions, if needed, but committee members and the advisor may not provide direct editorial feedback on responses as they are being developed.

Upon completion of the written exam, the committee will have two weeks to evaluate the student's responses. The evaluation will model a manuscript submission in a peer-reviewed journal. Each committee member will serve as a reviewer, providing written feedback (~one paragraph) for each of the questions. The committee chair will serve as the handling editor to deliver the final decision of acceptance (based on agreement among the committee), which requires that each of the responses be deemed acceptable. The student's advisor will be privy to the process, and is encouraged to provide the

student with reviews, but will not participate in the committee vote. Thus, the committee will be comprised of four voting members.

The committee may also request revisions to the written papers—either minor or major—before one or more of them is accepted. In the case of required revisions, a timeline for submission is to be agreed upon by the committee and may extend into the first semester of the third academic year. If the student fails the exam, meaning one or more responses are judged to be unacceptable, they will have one opportunity to retake a new exam, with a timeline determined by the committee. Failure of the second exam will require leaving the graduate program.

Format of Oral Component

The oral exam will be initiated by the completion of the written portion of the exam. Orals should occur before the end of the second year, though flexibility in this timeline will be exercised for students with revision requirements for the written portion. The oral component will further assess general competency in the core areas of Ecology and Evolution (Organismal Function, Ecology, and Genetics and Evolution) and mastery of knowledge directly relevant to the dissertation. All committee members, including the student's research advisor, will vote following the oral exam, and a student is deemed to have passed the oral exams if no more than one committee member votes no. If the student fails the exam, they will have one opportunity to retake a new exam, with a timeline determined by the committee. Failure of the second exam will require leaving the graduate program.

Teaching Requirement and Teaching Assistantships

All Ph. D. students must engage in supervised teaching activities and must teach the equivalent of a regular TA assignment for at least one semester, regardless of whether they are salaried. Ph.D. students are encouraged to obtain more teaching experience either through additional TA assignments or by giving guest lectures in classes. There is no teaching requirement for M.S. students.

Teaching assistantships are awarded annually on a competitive basis. Renewed support after each year is contingent upon satisfactory progress toward degree requirements and quality of teaching performance. Students in the program who lose research support will be considered in spring for teaching assistantships, effective the following academic year, along with the new applicant pool under consideration.

Support for continuing students is contingent upon satisfactory academic performance while in residence in the program. The annual review of each graduate student deals with these criteria. TA support will ordinarily be limited to 4 and 10 consecutive academic year semesters for M.S. and Ph.D. students, respectively. When students are accepted into the program they shall be informed that this amount of support is available as long as they meet the requirements outlined above.

Periodically, supplemental assistantships become available at the beginning of a semester, either from the Dean in response to enrollment fluctuations, or due to unexpected vacancies in assistantships already awarded. These may be used to provide support for a third-year M.S. or a sixth-year Ph.D. student. It is the role of the EE faculty to weigh such requests and to provide a prioritized listing of students to whom such support may be offered.

Any deviation from consecutive semester appointments requires the prior approval of the EE faculty and the Associate Dean of DBS. Summer appointments are sometimes available at the Biological Station.

EE Foreign Language Requirement

There is no foreign language requirement for the Master's or Ph.D. degree. Nevertheless, the Advisory Committee may require a student to show competence in a foreign language when appropriate for the student's area of research interest.

EE Annual Review of Student Progress

The EE Student Evaluation Committee evaluates student progress every Spring to assess whether students are meeting program requirements. The EE Graduate Student Annual Review Form is used in this review. This committee also conducts a follow-up evaluation every fall to judge whether students with identified deficits are making satisfactory progress.

In the event that a student has not met a deadline by the annual Spring evaluation, they will be asked to remedy the deficit during the following Fall semester. If the student fails to remedy the issue by the conclusion of the Fall semester, they will be placed on probation at the start of the following Spring semester. After one semester on probation, if the problem still is not remedied, the student will be ineligible for additional TA support and, after one more semester of inaction, will be dropped from the program. Missing early deadlines (e.g., forming a committee or developing a pre-proposal) does not push back the deadline on later deadlines (e.g., defending full proposal or passing comps).

EE Admission to Candidacy

At least 6 months before the Master's or Ph.D. degree is to be awarded, and after successful completion of the comprehensive exam (for Ph.D. students), the student must submit to the Graduate School three copies of the Application for [Graduation Form](#) and the graduation application fee of \$45.00.

EE Completion and Defense of M.S. Thesis or Ph.D. Dissertation

Content of dissertation

The Master's or PhD dissertation must embody the results of independent research by the candidate. It must be an original contribution to knowledge appropriate for publication in a peer-reviewed journal. Students typically write their thesis or dissertation as a series of papers, and it is not uncommon for several of these to already be published by the time the student defends. A paper that is accepted by a journal does not, however, ensure that it will be automatically accepted by the committee without

further modification. Therefore students are strongly encouraged to receive feedback from their committee members prior to submitting a paper for publication.

Deadlines and approvals

Copies of the complete thesis draft, edited, signed, and approved by the major professor, shall be made available to the rest of the student's advisory committee at least 30 days prior to the anticipated defense date so that they can approve it for defense. The advisory committee must meet for this decision at least one week before the scheduled defense. This important step should not be circumvented by having the student visit faculty to collect signatures one at a time. After the committee unanimously approves and signs the thesis or dissertation for defense, it is submitted to the EE faculty for their approval at least 7 days prior to the defense, and to the Graduate School for its approval at least 7 days prior to the defense. The signature of the committee chair and all committee members should be on the title page indicating that they have agreed that it is ready for defense. Unless the EE program director receives a written objection by one or more EE faculty, the thesis or dissertation defense can take place on the scheduled day. In the event there is an objection, EE faculty shall meet and vote. A 2/3 majority of all EE faculty in current residence must approve to proceed with the defense. Public notice of the defense should be posted one week prior to the defense. At least two weeks before the end of the semester, the student must submit to the Graduate School, 3 final unbound copies of the thesis or dissertation, one additional copy of the dissertation title page and abstract, and the applicable fees and forms. For guidance in preparing a thesis or dissertation, as well as current binding fees and forms required, consult the Graduate School's on-line instructions (<http://www.umt.edu/grad/>). The student is encouraged to have an additional copy of the thesis bound by a commercial binding service for their thesis director.

Defense

M.S. and Ph. D. students will be required to conduct a public (40 minute) presentation of their research findings as part of the EE Seminar Series. The public presentation is immediately followed by a public question-answer period. Following the public presentation, the student's advisory committee conducts an oral examination, which is open to all faculty members of the University. Students will be required to "defend" the approach, methods, analysis, and conclusions related to their research. The student should bring the thesis copies that were marked by committee members so the committee members can use those copies for reference during the defense. A 1-hour block of time should be reserved for this defense.

No summer (i.e., after the end of spring semester and before the beginning of fall semester) defenses are allowed; many EE faculty members and graduate students are not available on campus for the public seminar presentation and defense during this period.

In case of failure, one repeat examination at least one month after the initial defense is permitted. A unanimous vote of a satisfactory performance is required by a Master's examination committee for a pass. A Ph.D. student is required to have no more than one negative vote from the Dissertation Committee to pass this exam.

EE Guidelines Governing Use of DBS Facilities and Services

Office space.

Office and research space is arranged through consultation between the Associate Dean for the Biological Sciences and the student's advisor. Generally, advisors are expected to use their assigned space to provide office and research space for their own students.

Keys

Keys to the building, your office space, and any laboratories you need access to can be obtained by having your advisor put in a request for a key card, which may be obtained from the Administrative Manager (Janean Clark). The card is taken to the Department of Campus Security at the physical plant. The physical plant will charge you a fee for each key, refunded upon return of the key. Due to security and theft risks and the enormous costs of re-keying locks if keys are lost, students are asked to guard keys carefully.

Office supplies

The Division cannot provide you with paper, pens, legal pads, computer paper, disks, or other supplies. Division letterhead may be made available to you through your faculty advisor. Letterhead may be used for official university business, including graduate student thesis or dissertation research, but not for personal business or for conveying personal positions or views (e.g., letters to the editor).

Mail service

The outgoing mailboxes in the DBS office are for **business-related mail only**. Personal items, even those that are already stamped, are not allowed by the mail service. Be sure that your name and the DBS mail account number **MBii01** appear on any business-related mail authorized by your advisor.

Telephone

Graduate students are not permitted to place long-distance business calls from Division phones unless specifically authorized to do so by their advisor.

Copy machine

Students are permitted to copy materials for courses in which they are a teaching assistant. Submit your requests to the copy basket in HS 105. Be sure to indicate the appropriate course number on the copy request slip. Please give the office staff plenty of lead time for your copying needs; it is unreasonable to walk in just before a class and expect to have items copied. Copies for research purposes must be charged to a grant number.

Office computer / laser printer

The office computers are not available for student use. Do not expect to have items printed on demand. The office cannot print theses or dissertations.

Travel

Students attending professional meetings should inquire whether Provost Travel (with Division matching funds) are available to support travel; generally this funding will be modest if it is available. Students may also apply to use PoND (Program of National Distinction) funds to support research-related or conference travel. A faculty committee evaluates travel proposals and makes decisions based on the likely impact to the student's research and/or professional development and available funds.

Research supplies

You may not charge research supplies to the Division at PTS, Chem Stores, library, or any other place on- or off-campus.

Greenhouse, GIS laboratory, Biological Station, Lubrecht Experimental Forest, and other facilities

You must work with your advisor and the director of a given facility to gain access for research purposes.

Other University Policies & Procedures

These Policies and Procedures provide guidance to faculty members and graduate students on the operation of the EE graduate program. In addition to the regulations detailed throughout this document, all graduate students in EE are subject to the formal policies of the [University of Montana \(UM\) Graduate School](#), the overarching UM [Student Policies and Procedures](#), as well as other DBS departmental policies and procedures.