GRADUATE STUDENT HANDBOOK

Information for graduate students enrolled in the Department of Land Resources and Environmental Sciences at Montana State University

http://landresources.montana.edu

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NOTE: THE MSU BULLETIN, GRADUATE CATALOG AND THE GRADUATE SCHOOL HAVE PRECEDENCE OVER THIS PUBLICATION RELATIVE TO OFFICIAL PROCEDURES AND DEADLINES.

The Graduate School website may be found at http://www.montana.edu/gradschool/
INTRODUCTION

The Department of Land Resources and Environmental Sciences (LRES) at Montana State University offers graduate programs leading to an M.S. degree in Land Resources and Environmental Sciences, an M.S. in Land Rehabilitation and a Ph.D. in Ecology and Environmental Sciences. Specialization within each area depends upon the student's interest and availability of financial support for interested students. LRES also participates in the cross-departmental M.S. in Entomology. LRES graduate students enrolled in the Entomology M.S. degree program will be expected to follow the guidelines in this booklet.

The purpose of the graduate program is to provide students with the opportunity to focus and extend their knowledge in a subject matter field as well as to develop their capability for critical thinking, originality in research and depth of academic training. The information contained in this booklet has been assembled for the convenience of graduate students and advisors in LRES. This booklet should be used in concert with the MSU Bulletin and information on The Graduate School website. Graduate students and advisors are expected to become thoroughly familiar with the regulations of this booklet and those of The Graduate School. Failure to follow these regulations and observe the degree requirements invariably results in complications and often delays progress in completing the chosen degree.

It is the student's responsibility to meet all deadlines regarding their graduate program. Deadlines may change from time to time. Check with The Graduate School and the LRES Academic Programs Coordinator for updated information.

Graduate students on formal appointment and receiving an assistantship stipend are considered full-time research assistants (GRA) or teaching assistants (GTA) in the department. These appointments represent an agreement between the student and department with each party having a responsibility in the arrangement. GRA’s generally devote about one-half time to class studies and one-half time to a research project under the guidance of a faculty Major Advisor over the course of the appointment. GTA’s generally devote about one-half time to teaching responsibilities and about one-half time to class studies during the academic year. Research responsibilities occur throughout the year, but are the predominant activities during the summer months. The time devoted to these activities will vary between student programs, but students will devote their full and concerted efforts toward completion of their program. The period of appointment is considered to be one of academic growth and professional development. Students are on duty in the Department on a regular basis each working day except for holidays or approved leave periods. Inherent in the graduate student training program is an expectation that students will devote long hours, often substantially in excess of a typical work week, toward degree completion. Indebtedness to the research project and the Department is not satisfied until the thesis and graduation are accomplished and appropriate publications are completed.

Students seeking admission to graduate status in the Department of Land Resources and Environmental Sciences must hold a B.S. or M.S. degree and have a record of appropriate scholarship in areas closely related to land resources and environmental sciences. They are expected to present evidence of college level training and mastery in biology, chemistry and mathematics sufficient to provide a good background for further study at the advanced level.
Students with deficiencies may be required to take background courses to makeup these deficiencies before or after being approved for acceptance. GRE exams are to be taken before applying for admittance and are part of the required application materials. The Educational Testing Service must forward an official copy of the score directly to The Graduate School. A TOEFL (Test of English as a Foreign Language) score of 550 for the paper based test, 213 for the computer based test and 80 for the internet-based test is required for international students whose first language is not English. English proficiency exam scores are not required if English is the first official language of the applicant’s country of citizenship or if the applicant has received an undergraduate or graduate degree from an institution in the United States. A GPA of 3.0 for the last two years, three letters of recommendation and a letter of application describing the applicant’s research interests and career goals in pursuing graduate training are minimum requirements for acceptance to the LRES graduate program. No foreign language credits are required by LRES for the M.S. or Ph.D. degrees.

Students in the Land Rehabilitation M.S. program are eligible for the WICHE (Western Interstate Commission for Higher Education) tuition waiver. Students who have accepted WICHE support **MAY NOT** change to the M.S. program in Land Resources and Environmental Sciences unless and until they repay the entirety of their previous WICHE support. All policies listed in the MSU Bulletin, Graduate Catalog and in this booklet apply to all graduate degree candidates in the Department of Land Resources and Environmental Sciences.

NOTE: All graduate forms must be REVIEWED, TYPED and PROCESSED BY THE LRES ACADEMIC PROGRAMS COORDINATOR before submission to The Graduate School
APPOINTMENTS AND GENERAL GUIDELINES

All new graduate students are required to attend a departmental orientation with the Department Head and LRES staff which will be held at the beginning of the semester.

Assistantships

When students are appointed to an assistantship, this implies that the assistantship will continue contingent on satisfactory student performance and availability of funds for the time periods stated in the paragraph below. Exceptions to appointments are included in the hire letter offering the assistantship.

Assistantships are awarded as a means of providing financial assistance so students can make steady progress toward completion of a degree. Students on assistantship do not qualify for additional remuneration. They are expected to complete degree requirements within a reasonable time frame depending upon the nature of their programs. Students on assistantships are expected to complete an M.S. degree in 2 to 2½ years and the Ph.D. degree in 3 to 4 years. A Graduate Assistant Agreement Form must be completed before a student can be placed on an assistantship. Graduate Students may work (through any combination of payroll types) at Residence Life, University Food Services, ASMSU Tutoring, or apply for classified, professional or adjunct positions with no restrictions. For this type of employment, a Graduate Student Authorization Form must be submitted with approval from the student’s advisor and The Graduate School.

Graduate students appointed as Graduate Teaching or Research Assistants may not be employed for more than 20 hours per week cumulatively for all forms of employment on campus. All campus employment of graduate students must be approved through The Graduate School.

Currently, the Department Head allocates university-funded in-state and/or out-of-state tuition waivers to GTA’s and GRA’s. In general, GTA’s have priority in these assignments. The majority of GRA programs are funded by research grants and contracts awarded to individual LRES faculty. Fees and/or tuition may be paid by a research grant or contract, if approved by the major advisor and granting agency.

Domestic students are encouraged to obtain residency status as soon as possible. Contact the Registrar’s Office in Montana Hall for full details on policies regarding residency.

Major Advisor/Graduate Committee Chairperson

The major advisor is the primary contact for each graduate student and assists the student in all matters related to graduate study.

The major advisor has responsibility to be familiar with and to uphold LRES and MSU standards for the M.S. and Ph.D. degrees and to provide excellent mentorship to graduate
students under their supervision, consistent with departmental goals and expectations.

Only tenurable LRES faculty may serve as the major advisor/graduate committee chairperson for LRES graduate students. Non-tenurable LRES faculty on courtesy appointments (e.g., Research and Affiliate faculty), or tenurable faculty from other MSU departments, may co-chair LRES graduate committees with a tenurable LRES faculty member upon approval of the LRES Department Head. The major advisor must be selected by the middle of the second term in residence.

Duties of the major advisor include:
- Assigns graduate students to their research/teaching programs.
- Assists in selecting the student's graduate advisory committee.
- Initiates the thesis proposal and initial meeting with the graduate advisory committee.
- Helps determine the student’s program of study (required courses) in consultation with the student and the graduate committee.
- Monitors student progress and conducts annual reviews.
- Administers comprehensive, defense-of-thesis and final examinations.
- Reviews program change requests.
- Ensures program rigor.
- Helps arrange for the student to gain teaching experience.
- Monitors student progress toward degree completion and adherence to the time schedule for meeting Department and The Graduate School requirements.

Graduate Committee

The major advisor and graduate advisory committee share responsibility for overseeing the student's needs and progress. The graduate committee members are selected by the student and major advisor on the basis of their qualifications to directly assist in the student's thesis research program. Appropriate disciplinary representation should be present on the committee, consistent with the specific research project.

At least three of the five appointed members of a Ph.D. committee and two to three members of an M.S. committee (which may be composed of three to five members) must be full-time tenurable faculty at MSU (as opposed to emeritus/research/adjunct/affiliate faculty or non-academic experts).

Committee members not holding faculty status at MSU must submit documentation of their qualifications, including current vita, to the Department Head prior to approval. The proposed committee membership is submitted and approved by the Department Head then submitted to The Graduate School as soon as possible, but no later than the end of the second semester for M.S. students or by the end of the third semester for Ph.D. students. Committee composition may subsequently be modified as needed but must remain within the guidelines above.
Graduate Program of Study and Committee Form

The course program is planned by students in close collaboration with the major advisor and graduate committee, and is submitted to the Department Head, followed by The Graduate School, no later than the end of the second (M.S.) or the third (Ph.D.) term. A deficiency identification exam may be given at the discretion of the major advisor and graduate committee. The goal of the exam is to help identify areas of course work or disciplinary deficiency to assist in designing an appropriate plan of study. The members of the graduate committee (including the graduate representative on doctoral committees) must initial the original typed copy of the program form before it is submitted to the Department Head. The program may later be altered as needed, subject to department and The Graduate School approval. Any changes may be requested before or during the term affected. Final changes must be made at least one month prior to the end of the term in which degree requirements will be completed. See “Guidelines and Instructions for Completing the Master’s and Ph.D. Program of Study and Committee Form” in the appendix for Graduate School requirements.

Students receiving tuition waiver or having tuition/fees paid from a grant normally will register for a minimum of nine (9) credits per semester. EXCEPTION: Those students working toward residency status must register for no more than six (6) credits per term for the first 12 months in attendance.

Completion of the thesis research requirement will be verified by the graduate committee and the major advisor following the outcome of the final defense-of thesis examination. M.S. degree students in the department are expected to pursue a “Plan A” option (thesis). If a “Plan B” option (professional paper) is desired, this must be communicated to the major advisor prior to the initiation of the graduate program. Students are not allowed to change from Plan A to Plan B except in the event of remarkable circumstances beyond the control of the student. Such a change must be approved in writing by the student’s graduate committee and the Department Head.

Application for Advanced Degree

An Application for Advanced Degree must be submitted the semester of graduation to the LRES Academic Programs Coordinator in time to allow for completion and auditing. It is forwarded to The Graduate School on or before the specified deadline. If you do not complete the requirements during the term specified, the previous application must be withdrawn and a new application form must be submitted to the LRES Academic Programs Coordinator to forward to The Graduate School by the applicable deadline. Thus, the student and major advisor should carefully plan the timing of program completion and filing the application for advanced degree. If the thesis/dissertation is submitted after the published deadline and the student is currently registered for three credits, the student may choose to make all corrections/changes before the first day of the following academic term and be eligible for a one-credit registration the following term (instead of the mandatory three credit registration the term of graduation). Students who choose and are eligible for this option will be certified to graduate the following term. If more time is needed beyond the first day of the following term, the student will be required to register for at least three credits to be eligible for graduation that term.
Thesis Proposal

Thesis topics are to be chosen so they are in harmony with the research project with which the student is associated. Students should develop, as soon as possible, with their major advisor for consideration by the graduate advisory committee, a complete, comprehensive, and workable thesis research proposal. This proposal should provide an appropriate title, a synopsis of the current literature or lack of it, a statement of what is to be researched, why the research is important relative to that already done, proposed research methods, and a proposed time line for completion.

Minimum content guidelines include:
- Title - Journal title style
- Objectives - one-half page
- Justification - one paragraph
- Literature Review - about three pages
- Materials/Methods - one to two pages
- Expected contribution to existing knowledge - one-half page
- Time line and metrics

Greater detail and/or length may be required by the major advisor and/or graduate advisory committee.

Thesis

General Guidelines for Electronic Theses or Dissertations may be found on The Graduate School website [http://www.montana.edu/wwwetd/](http://www.montana.edu/wwwetd/) and is to be followed by the student and major advisor during the preparation of the thesis/dissertation and its approval by The Graduate School.

Thesis grading is Pass/Fail. Full-time students who are doing thesis work should register for an average course load of 9-12 credits per semester. This can be accomplished by adding thesis credits each semester around course credits to bring the total up to near the average figure. Thesis preparation must follow The Graduate School guidelines. Make certain that all names and titles in the acknowledgments and on the signature page are accurate and spelled correctly. Typing and other costs are the degree candidate's responsibility. The departmental copier may be used to make copies of the EXAMINATION DRAFT for the graduate advisory committee in preparation for the defense-of-thesis. All other duplicating costs of the thesis, including those after the defense, are the responsibility of the degree candidate; departmental copiers may not be used. If more than four copies of the examination draft are required, costs of duplicating extra copies will be paid by the student or project. Students are responsible for the proper distribution of final thesis copies, including one copy required for the LRES archives and one for the major advisor. Any changes in thesis format from those in the "Guide" must have prior approval from The Graduate School.

The Title Pages requiring original signatures should be brought to the LRES Academic Programs Coordinator. At that time, the Signature Approval Form will be added and all forms will be
routed to the Department Head for inspection and signature. The LRES archive thesis copy is bound. If you have other copies that you would like to have bound, they should be brought to the LRES Academic Programs Coordinator at which time you may select cover and lettering colors. Single-sided copies are preferred. There is a moderate charge for binding, paid by the student or advisor. The Certificate of Approval Form for Theses and Dissertations must be typed by the graduate student and signed by the student, chair and committee members to be submitted to The Graduate School with an electronic copy of their thesis.

A graduate student can expect the draft of the thesis to be returned from the major advisor and graduate committee reviews within two weeks of the time submitted. A draft version of the thesis must be reviewed and given tentative approval by all members of the graduate committee before an examination copy is prepared and the final exam scheduled.

Completion of the thesis research requirement will be verified by the graduate committee and the major advisor following the outcome of the final examination.

Examinations and Defense of Thesis/Dissertation

Refer to the MSU Bulletin or Graduate Catalog regarding all dates to meet graduation deadlines. After the thesis has been read by the full committee, the final examination can be scheduled. Adhering to MSU GRADUATE CATALOG regulations, the examination copy for the thesis defense is to be given to all committee members (and to the LRES Academic Programs Coordinator for Ph.D.) at least one week before the examination.

The M.S. final examination will be both comprehensive, to test breadth and depth of knowledge, and a defense-of-thesis (see MSU Graduate Catalog for full details). Students should discuss with the major advisor how this exam will be handled, so they may appropriately prepare for it.

Comprehensive examinations (see the online MSU Graduate Catalog for full details) for the Ph.D. degree are both written and oral. The written phase precedes the oral exam by no more than one month and is scheduled when the candidate and major advisor agree that the student is ready. The comprehensive examination must be taken by the end of the second year of the student’s program. The written exam must be completed within a period of one week. Questions are prepared by the candidate’s graduate committee, with additional questions solicited from other staff members if the major advisor desires. Grading is on a Pass/Fail basis. The committee has final authority, with no more than a single dissenting vote required for passing the comprehensive examination.

The final examination for the Ph.D. degree, which cannot occur until at least six months after passing the written and oral comprehensive examinations, is primarily a dissertation defense, but may also include additional questions within the broad scope of the student’s discipline. A Public Thesis/Dissertation Defense seminar is required for all M.S. and Ph.D. degrees. The defense seminar shall present results included in the draft thesis submitted to the graduate advisory committee for review and may not take place until the draft thesis has been presented to the student’s graduate committee for approval.
Once the date has been set, contact the LRES Academic Programs Coordinator at least two weeks before the date for the thesis/dissertation defense.

A notice to all departmental faculty and graduate students announcing the final exam and its location will be circulated by the LRES Main Office one week before the final exam date. (Again, contact LRES Academic Programs Coordinator – students are NOT to prepare notices on their own). The Graduate School must be notified of the defense seminar so it can be posted on the website. LRES faculty are encouraged to attend all final exams, but action relative to the candidate’s achievement rests solely with the graduate advisory committee and the Department Head. An open seminar (30-40 minutes) covering the results of the thesis research is presented to attendees prior to the beginning of the thesis defense. The thesis in final form will be approved by the major advisor, graduate committee, the LRES Department Head and the Dean of The Graduate School.

**Expectation for Publication**

Publication of the thesis research results in a research journal **IS EXPECTED**; thus, the thesis research should be conducted with publication beyond the thesis in mind. Authors are encouraged to write in a manner that requires the least rewriting for a publication format and still meets the requirements of The Graduate School’s guidelines ([http://www.montana.edu/etd/index.html](http://www.montana.edu/etd/index.html)). The student will prepare the journal manuscript(s) and submit to their major advisor. Publication guidelines are available from each major society or journal which describe correct format and requirements. If publication is not accomplished within one year after graduation, the advisor will be expected to publish the work as senior author.

**Duties and Expectations**

All graduate appointments are awarded with the understanding that the student will be involved in departmental research activities as an integral part of their academic program and training. They are to become familiar with and obtain a complete working knowledge of their chosen major area of study. Graduate students learn by assisting their major advisor in undertaking and completing research. An important part of the research process involves publishing results in a format that is readily accessible to others and thereby adds to the body of scientific knowledge. Funded graduate students are explicitly expected to publish their research in scientific journals, if the work is deemed appropriate for publication by the major advisor. This is true even if funding has ended before the work has been converted to manuscript form and submitted.

All students, regardless of funding source, are expected to gain instructional experience through assisting with teaching in an LRES or other approved lecture or laboratory course. This activity may or may not provide added financial compensation. Students completing the teaching assistance requirement will typically be involved about 15 hours per week in teaching activities in addition to their own research and course work. This time requirement will vary with specific courses and activities, number of graduate assistants participating, etc. Students should explore potential opportunities with their advisor and with other LRES faculty well in advance of their anticipated service.
Evaluation

Evaluation is a continuous process and is constantly being done by the major advisor, graduate committee, department head, and LRES faculty. Unsatisfactory student progress may lead to termination of the assistantship or graduate program. In some cases, a special meeting may be called to interview the committee and/or student relative to progress.

Vacation and Personal Interest Courses

Allowances for vacation and for special interest or recreational physical education classes must be arranged with the major advisor in advance. Tuition waivers allocated by the Department Head will NOT cover these courses. Graduate students do not automatically receive time off when classes are not in session unless it is a recognized university holiday.

LRES 594 Graduate Seminar

M.S. and Ph.D. students are required to complete one credit of LRES 594 Graduate Seminar. LRES 594 guidelines and instructor protocols must be followed. The seminar will be about the student’s proposed thesis or dissertation research. This seminar should be timed so that it is presented early in the student’s program (i.e., first or second semester). Students may take additional LRES 594 credits, but these are not required and a seminar presentation will be required each time LRES 594 is taken.

Students who already have an approved Graduate Program of Study & Committee Form that lists two or three LRES 594 course credits, you can (with the approval of your advisor and committee) either complete any additional LRES 594 seminar courses or you can replace the seminar credits with a traditional course or another seminar course. The public seminar presented as part of the defense of the thesis or dissertation is not affected by the change in LRES 594 requirements.

ALL GRADUATE STUDENTS ARE STRONGLY ENCOURAGED TO ATTEND ALL LRES SEMINARS, WHETHER ENROLLED IN LRES 594 THAT SEMESTER OR NOT.

Travel

Graduate students are encouraged to attend regional and national professional meetings and to present their work. Financial assistance may be provided from project funds, if available, and if the project leader and the administration are convinced that benefits to the project justify expenditure. Students may receive different amounts of financial assistance from different project sources. Certain funds that may occasionally become available to the department will be distributed to graduate students with priority given to those scheduled to present professional papers. If transportation to meetings is available in official vehicles, expenses incurred for other forms of transportation will normally not be paid by the
An Out-of-State Travel Authorization form must be completed at least 10 days prior to departure date, and prior to encumbering any funds for travel arrangements. See the Accountant in the LRES Main Office for a complete explanation of all travel requirements well ahead of any planned travel.

**Exit Process**

Students are to arrange for an exit interview with the Department Head before leaving campus. An exit interview may also be required with the Vice Provost of The Graduate School. Also, departing students should give the MSU Human Services and LRES Academic Programs Coordinator a forwarding address before leaving the campus. In the event a student has obtained employment, you should give the following information to the LRES Academic Programs Coordinator for the annual Career Services Survey: Name of Company, Address, Position Title, and Yearly Salary.

Any early departures should be arranged with the major advisor and Department Head as soon as possible when a change is anticipated.

**Grievances**

If such cases arise, these are referred to the major advisor, the LRES Graduate Affairs committee, and/or the Department Head, respectively.

**Graduate Program Overview Committee**

Many aspects of the LRES Graduate Program fall under the authority of the LRES Graduate Curriculum Committee.

**Department Head**

The Department Head serves multiple functions relative to graduate students and programs. Among these are oversight and approval of proposed graduate programs and associated forms, and ensuring that the quality and standards of the departmental M.S. and Ph.D. programs are upheld and maintained.

The Department Head also serves as an advocate for LRES graduate students, and as a mediator of any disputes or difficulties encountered by graduate students that cannot be satisfactorily resolved by the student’s major advisor or graduate advisory committee. Students are encouraged to contact the Department Head before any such difficulties become exacerbated and/or prolonged.
APPENDIX: Sample Forms

Visit The Graduate School’s website at www.montana.edu/gradschool for:

- Graduate Program of Study and Committee Form
- Guidelines and Instructions for Completing the Master’s Program of Study and Committee Form
- Guidelines and Instructions for Completing the Doctoral Program and Study and Committee Form
- Graduate Program Change Form
- Graduate Committee Revision Form
- Application for Advanced Degree Form
- Certificate of Approval Form for Theses and Dissertations
- Thesis Binding Order Form
- Steps to Completing a Master’s Degree Reference Summary
- Information on Master’s Degree Requirements
- Steps to Completing a Doctoral Degree Reference Summary
- Information on Doctoral Degree Requirements
- Organizational Chart of the Graduate School