**Graduate Handbook**

**Department of Earth Sciences**

****

**Last Updated Fall 2021**

**GRADUATE HANDBOOK**

**Department of Earth Science – Montana State University**

[Introduction 4](#_Toc491427638)

[Expectations for a Graduate Student 4](#_Toc491427639)

[Overview 4](#_Toc491427640)

[Specific Expectations 5](#_Toc491427641)

[Title IX and Parenting 7](#_Toc491427642)

[Consensual Sexual or Romantic Relationships and Conflict of Interest 7](#_Toc491427643)

[Masters of Science Program Requirements in Earth Sciences 9](#_Toc491427644)

[Program Overview 9](#_Toc491427645)

[Course Requirements 9](#_Toc491427646)

[Formation of a Graduate Committee 10](#_Toc491427647)

[Outlining a Program of Study 11](#_Toc491427648)

[Thesis Proposal 11](#_Toc491427649)

[Comprehensive Examination 11](#_Toc491427650)

[Writing a Thesis 12](#_Toc491427651)

[Thesis Defense 13](#_Toc491427652)

[MSc Planning Checklist 16](#_Toc491427653)

[Doctoral Degree Program Requirements in Earth Sciences 17](#_Toc491427654)

[Program Overview 17](#_Toc491427655)

[Course Requirements 18](#_Toc491427656)

[Formation of a Graduate Committee 18](#_Toc491427657)

[Outlining a Program of Study 19](#_Toc491427658)

[Thesis Proposal 20](#_Toc491427659)

[Qualifying Examination 20](#_Toc491427660)

[Comprehensive Examination 21](#_Toc491427661)

[Public Presentation 22](#_Toc491427662)

[Writing a Thesis 22](#_Toc491427663)

[Thesis Defense 23](#_Toc491427664)

[PhD Planning Checklist 26](#_Toc491427665)

[Important Program and Employment Matters 27](#_Toc491427666)

[Beginning Employment 27](#_Toc491427667)

[Paperwork and Documentation 27](#_Toc491427668)

[ACH or Direct Deposit 27](#_Toc491427669)

[Fellowships 28](#_Toc491427670)

[Graduate Teaching Assistantships (GTA) 28](#_Toc491427671)

[Graduate Research Assistantships (GRA) 29](#_Toc491427672)

[Tuition Coverage 29](#_Toc491427673)

[GATA Designation 30](#_Toc491427674)

[Health Insurance 30](#_Toc491427675)

[Payroll 31](#_Toc491427676)

[Purchases 32](#_Toc491427677)

[Reimbursements 32](#_Toc491427678)

[Travel 33](#_Toc491427679)

[Leave of Absence and Continuous Enrollment 34](#_Toc491427680)

[One Credit Extension Policy 34](#_Toc491427681)

[Video Conferencing for Examinations and Defenses 35](#_Toc491427682)

[Other Student and Office Essentials 35](#_Toc491427683)

[Orientation Meeting 35](#_Toc491427684)

[E- Mail Services 35](#_Toc491427685)

[ID/Cat Card 36](#_Toc491427686)

[Keys 36](#_Toc491427687)

[Parking 36](#_Toc491427688)

[Bicycles 37](#_Toc491427689)

[Mail Services 37](#_Toc491427690)

[Receiving Mail 37](#_Toc491427691)

[Grades 37](#_Toc491427692)

[Computer Hardware, Software and IP Addresses 37](#_Toc491427693)

[Office Supplies 38](#_Toc491427694)

[Photocopying 38](#_Toc491427695)

# Introduction

This handbook serves two purposes.

* It provides advice for understanding and completing each step of the degree process.
* It also provides the information needed to manage your responsibilities in your new professional role.

This document covers some departmental, college, and university policies, procedures and expectations. **Students are expected to be familiar with the Graduate School Policies and Procedures,** as posted on the Graduate School website. **Departmental policies always meet or exceed the minimum requirements set by the Graduate School, which are subject to change**.

# Expectations for a Graduate Student

## Overview

* Graduate studies are an opportunity to focus on an area of specialization in a discipline or profession of choice. Graduate studies are much more than classes. It is expected that you will demonstrate the initiative, ambition, excitement, and creativity that professional position will require when you graduate. Recognize that more than coursework is required to become independent in your specialization. Only extensive reading and research, beyond the requirements of a course, and a continuing discussion of your ideas, for insight, revision, or expansion, will allow you to meet the purpose of the degree. This means that you should set aside time for these activities on campus.
* All graduate appointments are awarded with the understanding that the student will be involved in the departmental activities as an integral part of their academic program and training.
* Evaluation is a continuous process and is constantly being done by the major advisor, graduate committee, department head, and Earth Sciences faculty. Unsatisfactory student progress may lead to termination of the assistantship or graduate program.
* Learn to ask the questions that go beyond the facts. The ability to ask challenging questions reflects your knowledge and its applications.

### Progress is your responsibility

* You are responsible for meeting all registration requirements, deadlines, and confirmation of attendance requirements.
* You are responsible for reading and understanding policies and procedures outlined by The Graduate School (TGS) and department
* You are responsible for completing your degree within the TGS established statute of limitations. If you do not meet the recommended deadlines, your coursework may need to be revalidated (with written approval only) or retaken, or you may have to reapply for admission to the program.

### Funding is your responsibility

* You are responsible for making sure that you receive any funding during your program of study well before the beginning of each semester, check with your advisor to make sure that the funding (stipend or tuition and/or fees) you are anticipating is in place.
* You are responsible for checking the balance on your student account regularly. Fees may post at any time without specific notification. These include Graduate School fees, student health services, library fines and other charges.

### Accounting Documentation is your responsibility

* You are responsible for receiving prior approval from the department, advisor or major professor for purchases and travel related to your work.
* You are responsible for providing a detailed list of all purchases from your grant and the grant number. This list may be on an invoice or on a receipt. A copy of the signed credit card slip is not a detailed list for all expenditures.
* Know your responsibilities for travel and ask for help whenever it seems confusing.

## Specific Expectations

### Seminars

Graduate students are expected to attend the Earth Science Department weekly seminars. Seminar notices are posted each week during spring and fall semesters. The seminar list is also posted online. Students are required to attend all seminars while in Bozeman to broaden and strengthen the MSU educational experience. Attendance is required while you are enrolled in the one-credit ERTH 594 Seminar but is expected regardless of whether you are enrolled in this class. In addition, we cannot attract quality speakers if we do not have a good audience.

### Fees

There is a schedule of tuition and incidental fees for both resident and non-resident students available for viewing online on the Graduate School website. There are deadlines for paying fees listed in the front of each semester’s Registration Handbook. If you do not pay by the deadline, you will be assessed a late fee. You may be assessed a one-time orientation fee your first semester in residence.

### Registration

It is important to register for classes before the posted deadlines. To register online, you will need a registration number. This number changes each spring and fall semester and is provided by your graduate advisor prior to registering for each new enrollment period. Your appointments and waivers cannot be submitted for approval until you are confirmed to be registered for the correct number of credits. You may be charged a fee for late student billing amounts if you miss the final published deadline. Your account will be put on ‘Hold’ and will not be able to register until outstanding amounts are paid. It is your responsibility to register on time and check your student account on a regular basis.

If you were not enrolled the previous semester, you will need to file an “Intent to Register” form with the Registrar’s office at least 30 days prior to the start of the registration period for which you wish to register. That form is available online through the registrar’s office.

Allowances for special interest or recreational physical education classes must be arranged with the major advisor in advance. Tuition waivers allocated by the Department Head or paid by major advisors will not cover these courses or any other courses not directly related to your degree.

IMPORTANT**:**  If you have personally arranged for student loans, grants, or other financial aid, be sure to confirm the registration requirements for that funding. Contact Financial Aid for assistance as the staff is not able to view this information. You must meet minimum credit requirements for many student appointments.

If you have completed your Program of Study OR have taken your Comprehensive Examination, you may be required to have Continuous Enrollment. You must then register for at least three credits each semester in which you remain in the degree program. You are allowed 3 semesters maximum of “leave.”

### Obtaining Residency

The Office of the Registrar reviews residency status on a semester basis. Students wishing to be declared a Montana resident should contact the Registrar’s Office to understand the deadlines for submitting a petition. In addition, the Registrar will have a list of items that will need to be submitted as part of the petition for residency status.

A student will need to have been a resident of Montana for twelve months to be eligible for resident tuition. Solely having an address in Montana for twelve months, or being a student for 12 months, is not sufficient to declare residency. You begin residency by obtaining a Montana driver’s license, registering a vehicle in Montana, registering to vote in Montana, purchasing a home and receiving a Montana title, or filing a state tax return. The start date for the twelve-month period is the date one of the above requirements is met, not the day you arrive on campus, begin classes, or move into your housing.

A student wishing to obtain residency status may not take more than six (6) credits in any semester for a full year.

When you complete the requirements, you must submit a written form requesting residency status at the University. The Office of the Registrar has these forms.

These examples may be helpful:

*Imani Crowe came to Montana in 2018 and obtained a Montana driver’s license on May 15, 2019. They entered graduate school in Fall 2019. Imani took 6 credits for each of the fall and spring semesters, registered a vehicle, and paid taxes in Montana in 2019. Imani was eligible for Montana Residency on May 15, 2020.*

*Rowan Chapman started graduate school in the summer of 2019. Rowan did not register a car or obtain a new driver’s license until November 23, 2019. They took 6 credits for the summer, fall, and spring semesters, and paid state taxes in Montana. Rowan is eligible for Montana residency on November 23, 2020.*

If you have questions or concerns about your specific situation, please contact the Registrar’s Office.

## Title IX and Parenting

Title IX provides parenting and pregnant student rights. If you have questions about your rights, please contact the Office of Institutional Equity (OIE) on campus, ***oie@montana.edu*** or x2042. MSU has a University Family Advocate who can meet with you to discuss resources on campus, answer questions, and help support a positive experience for all parties.

## Consensual Sexual or Romantic Relationships and Conflict of Interest

There are legal risks in any sexual or romantic relationship between individuals in inherently unequal positions. A consensual sexual or romantic relationship may threaten the real or perceived integrity of supervision and evaluation and put at risk the trust inherent in a position of authority. In addition, such relationships may harm or injure others in the academic or work environment when others perceive an undue access or advantage, a restriction of opportunities, or a conflict of interest. Finally, circumstances may change, and a situation of sexual harassment is possible. Even when both parties have consented at the outset to a consensual sexual or romantic relationship, this past consent does not remove grounds for a charge based upon subsequent unwelcome conduct.

Montana State University prohibits relationships between faculty and graduate students or graduate and undergraduate students where there is an academic supervisory role within 12 months. The relationships prohibited include supervisor and employee, mentor and trainee, teaching assistant and student. More information can be found at the MSU [*Relationships with Students Polic*](https://www.montana.edu/policy/relationships_students_policy.html#:~:text=Faculty%20are%20prohibited%20from%20engaging,student%2C%20regardless%20of%20academic%20discipline%3B&text=a%20graduate%20student%20who%20is,of%20academic%20or%20supervisory%20authority.)*y.*

# Masters of Science Program Requirements in Earth Sciences

## Program Overview

This document follows the Graduate School Rules for a Master of Science Degree (Policy & Procedures at the Graduate School Webpage). The Graduate School at MSU outlines minimum requirements for all departments, and therefore the departmental requirements are more restrictive. All students are expected to be familiar with both the Graduate School and Earth Science Departmental degree requirements.

Students are only accepted to the Department of Earth Sciences for the Master of Science Degree under a ‘Plan-A’ Degree Option (as described on the Grad School Policies and Procedures). This research-oriented degree requires the student complete a Research Thesis based on original research. A Master of Science student should learn to identify an achievable research question, develop and execute a research methodology to answer the question, perform guided but independent research to answer the question, and write a thesis which describes the question, methodology, and results and synthesizes findings in the context of past work to address the research question.

Program Learning Outcomes at the Master’s level include:

1. Conduct research resulting in original thesis or professional paper
2. Demonstrate mastery of subject matter content
3. Demonstrate mastery of one or more methods of inquiry appropriate to Earth Science subdiscipline
4. Demonstrate effective written communication of substantive content
5. Demonstrate effective oral communication of substantive content
6. Familiarity with guiding principles and strategies in the ethical conduct of research and/or teaching
7. Knowledge of the pathways and key skills required to securing a professional or academic position appropriate to Master’s degree holders

The resulting MSc degree will be Master of Science in Earth Sciences. No specialty area such as geography, geology, GIS, or snow science will be on your transcript or degree. MSc candidates are required to be thoroughly familiar with all information and requirements outlined in the Graduate Catalog and Division of Graduate Education website and are responsible for meeting all dates and deadlines.

## Course Requirements

MSc students must complete a minimum of 30 credits. This requirement includes

* A minimum of twenty (20) credits of course work
* A minimum of ten (10) thesis credits (ERTH-590).
* All incoming students are required to complete a three (3) credit ERTH-594 Seminar course, which serves as an Introduction to Graduate Study, and focuses on writing a thesis proposal, professional development, and review of regulations and expectations. The course also includes attendance and participation in the weekly Earth Sciences Seminar. It is recommended that students enroll in this course their first semester.
* No more than nine (9) 400-level credits may be counted
* A maximum of nine (9) 400/500-level credits taken prior to completion of the baccalaureate degree may be reserved and applied toward the graduate program requirements with the approval of the student’s graduate committee and the Graduate School. The course credits must be reserved prior to completing the course.
* No 300-level courses may be applied toward the degree. However, such courses may be required if the graduate committee determines that the student has coursework deficiencies that must be made up.
* Seminar (594), Independent Study (592), Internship (598) and department practicum courses may not comprise more than one-third (1/3) of the minimum required credits for a graduate degree.
* Only courses listed on the Graduate Program of Study are applicable toward the graduate degree credit requirements. The Program of Study can be updated at any time.
* A minimum of two-thirds (2/3) of the program (including both course and thesis credits) must be comprised of 500 and 600 level courses.
* All requirements here are in excess or meet those of The Graduate School. You must check their policies and procedures page to see if there are any additional restrictions (including limitations on the number of courses that are graded by pass-fail).

## Formation of a Graduate Committee

*(By end of 1st Semester)*

### Committee Chair

The chair of your thesis committee is your advisor in Earth Sciences. Your chair was assigned when you were accepted into the graduate program in Earth Sciences and must be a tenure-track faculty member in the Department of Earth Sciences, but you may have an affiliate faculty member as co-chair. You may not change chairs without gaining acceptance in writing from your new chair and Department Head in writing. These documents will be placed in your file in the Earth Sciences office. Switching chairs may require significant changes to a research project.

### Committee Members

A minimum of three committee members is required. You may have up to five committee members, though the department strongly urges you to restrict your committee size to three faculty members to facilitate the scheduling of committee meetings. You may ask advice of other faculty, even if they are not on your committee. Members of the committee should be individuals who can provide constructive input to your research and program of study. Check with your major professor for recommendations and/or concurrence on prospective members. Faculty should be asked if they are willing to serve.

At least two committee members must be tenure track or adjunct faculty in the Department of Earth Sciences. If a potential committee member is not already a tenure track member of the faculty at MSU, you must obtain Department and The Graduate School approval. You will need to obtain a current Curriculum Vita from the potential member, and your major advisor will need to write a letter of recommendation to the Department and Graduate School explaining why he/she should be a member and what he/she will contribute. Post docs may NOT serve as committee members even if they are affiliate faculty.

When all members have agreed to serve and any required documentation is provided, their names and signatures are required on the Graduate Program of Study and Committee Form to show their willingness and to give their approval to your Program of Study.

## Outlining a Program of Study

*(By end of 1st Semester)*

Meet with your Graduate Committee members to plan the courses you will take and the sequence for your graduate program. Your Program of Study should reflect your background and the knowledge base necessary to achieve a broad understanding of Earth Science. This paperwork should be turned into the department by the end of the 1st semester. Based upon their evaluation in committee meetings or the Comprehensive Examination (Semester 3), your Committee may suggest changes to your Program of Study.

The Program of Study can be updated at any time. Once a course has been taken, (received a grade) it cannot be removed from the Program.

By the end of their first semester, students must submit the form to the department for the signature of the Department Head and for forwarding to The Graduate School for the Dean’s signature. Committee members approve and sign your final Graduate Program of Study and Committee Form. This form requires the signatures from the full committee for approval to show their willingness to serve and to give their approval to your Program of Study. The graduate administrator will forward the form for approval from the Department Head and TGS.

If you do not meet the deadline for filing your program of study/committee form with The Graduate School, a hold may be placed on your registration until it is approved. There is a $30 fee from the Graduate School for processing. No charges are made for changes. You will be responsible for this fee unless your advisor specifically approves payment.

## Thesis Proposal

*(By end of 1st Semester)*

Your thesis topic is selected in consultation with your advisor and your committee. They will provide guidelines for length, format, and expectations, which may differ across disciplines. Your thesis proposal should be developed during your first semester in residence. The proposal topic and format must be developed in consultation with your advisor and committee. A thesis must be presented to and approved by the committee, and revisions are often expected before a thesis is accepted. The thesis should be developed and submitted to committee by the end of your first semester.

## Comprehensive Examination

*(Recommended by end of 3rd Semester)*

### Overview

The Comprehensive Exam is an oral examination over general Earth Science. The department does not require a Qualifying Exam for the Master of Science program.

The exam covers comprehensive topics depending on your concentration of study. All students should consult with their primary advisor and committee to understand their specific Comprehensive Exam expectations. Generally:

* In geographical areas (Snow-Science, Geography, GIS) the student in consultation with the thesis committee selects two (2) focal areas for the comprehensive exam.
* In geological areas (Geology, Paleontology) the student is expected to understand general geology at the graduate level. Consult with your committee prior to the exam about the breadth and scope of your exam topics.

The Comprehensive Exam may not be taken at the same scheduled time as a thesis defense, and as a departmental rule, are generally not be taken during summer or during semester breaks. Please plan accordingly. Exceptions to this rule must be obtained with written approval by the thesis committee and department. You must be registered for three (3) credits when you take the exam.

It is the student’s responsibility to set up the Exam time with their Committee’s approval, notify the department secretary and to reserve a suitable room, as well as necessary presentation equipment (laptop and projector) for committee meetings and examinations. It is the student’s responsibility to find and bring all appropriate paperwork requiring committee signatures.

Off campus members may participate either in person or through a conference or video call. See the related content on Video Conferencing in this document’s index.

### Completion

Passage of the comprehensive exam requires a majority vote of ‘Pass’ by the committee.

The following outcomes of the exam are possible.

* The student may pass the exam with no provisions
* The student may pass the exam with the provision that additional course work or other remedial actions be taken in appropriate subfields.
* The student may fail the examination.

If you do not successfully complete the examination, you may take it again no sooner than thirty (30) days after the first attempt. If you are unable to pass the examination on your second attempt, you will not be permitted to continue your graduate program in the Earth Sciences Department.

Upon successful completion of the examination your committee members sign the C*omprehensive Examination Form (available in the department office)* that your advisor will bring to the meeting. The department head gives the final approval, and it is passed along to the graduate school and a copy placed into your department file.

## Writing a Thesis

### Overview

The Earth Science department requires a thesis manuscript and successful defense for completion of the ‘Plan A’ MSc degree. Your thesis is the high point of your degree work. You will want it to point to the professional and academic achievements that you have accomplished and that indicate that you are ready to find employment or to do specialized work in a PhD program.

Your thesis/dissertation must be well written. The writing process is challenging, and it will take a great deal of time. There should be many revisions. Do not expect to complete it with a single draft. Your fellow graduate candidates will be excellent reviewers for the early drafts. Ask you major professor to comment on a more polished draft before you even consider presenting it to any other graduate committee members. Everyone rewrites their thesis/dissertation. Be prepared for an individual committee member to require substantial changes before they agree that you are ready for your formal defense.

### Format Considerations

You must understand and use the format requirements for the Graduate School (see “The Graduate School Handbook for Thesis/Dissertation Writing”). Your Graduate Committee may set additional requirements to follow. The department highly recommends writing a thesis with intent to publish. 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. Often, the format for journals is not identical to The Graduate School format in all cases. You will need to work with your advisor to creatively meet both requirements.

Prior to writing your thesis, and during the writing process, refer to the online “Preparation Guide for Theses, Dissertations, and Professional Papers” available on The Graduate School website. Understanding the formatting will help you avoid rewriting based on formatting errors. You can save yourself a lot of effort if you read and follow the formatting requirements in the guide for both the electronic and printed versions.

It is your responsibility to meet Graduate School guidelines for formatting your thesis before it is accepted by your Graduate Committee, the Department Head, and the Graduate School. All theses are now submitted electronically. Thesis formatting guidelines are available on the Graduate School website, and a representative is available to assist you with formatting. Contact this person early in the writing and formatting process.

## Thesis Defense

### Overview

The M.S. Thesis must be formally defended to your graduate committee. The Defense of Thesis will entail:

1. A public Seminar that is open to all faculty and graduate students, in which your research and conclusions are presented with an opportunity for questions from the audience.
2. A closed-door Defense Meeting with the Graduate Committee. The Committee Chair must attend in person. See the associated rules for “Video Conferencing for Examinations and Defenses”.

IMPORTANT: Do not schedule your Defense of Thesis until you have clear indications that your committee is ready to approve your work.

### Scheduling

Students must be registered for at least three (3) credits in the term during which they want to graduate.

The Application for Advanced Degree must be submitted to The Graduate School before the deadline of the semester in which you plan defend your thesis. This date is usually the third Friday of the term; however, it is your responsibility to learn and know this deadline.

Public presentation and defense must be completed during the period of scheduled classes in the academic year, and should not be held during final exam week, holidays, or summer term. Exceptions must be obtained in writing from the thesis committee and department.

The defense may only be scheduled when the committee agrees that a complete thesis draft is ready. Approval may take some time. In general, each time a draft is submitted to the Chair or committee, the student should not expect a response in less than fourteen (14) days. The chair of the committee must approve a defense draft before the thesis is submitted to the committee. Note: this implies that at least twenty-eight (28) days for review and the defense.

You must notify the Earth Science Department at least fourteen (14) days before the scheduled date of your defense. It is your responsibility to ensure that:

* All Supervisory Committee members can be present at the times and dates of the seminar and meeting
* The seminar time and date are publicly advertised (the office staff may offer assistance).

Typically, the public presentation is approximately one hour (~45 minutes presentation and with at least 15 minutes for questions from the audience). It is your responsibility to find a date and time that fits the schedule of each committee member. In addition, you must broadly advertise the seminar at least fourteen (14) days before the presentation and submit an announcement for the MSU Calendar of Events. The graduate administrator can help to advertise within the department, but you will probably want to so some additional advertising in other departments which share research interests. Additionally, you must submit a complete, printed copy of your thesis to the department; this copy will be placed in the front office along with a flyer fourteen (14) days before your scheduled thesis defense.

Because it is a formal presentation, the seminar should be well prepared and include visuals and/or media. Be sure to include these insights into your research work:

* A clear statement of the question that your research addressed
* An explanation of the importance of your question, considering earlier work by others
* A presentation of the methods and/or techniques of research and analysis of the data
* A clarification of any weaknesses in your data and/or how your might have done the research differently given the experience that you gained
* The conclusions supported by your data and their comparison with other findings

### Thesis Approval

Following the defense, the committee will vote on the quality of your thesis and your oral examination. Three decisions are possible:

1. Acceptable - This means that your committee will sign the *Report on Thesis Defense* brought to the meeting by your advisor*,* recommending you be granted an advanced degree. This often includes minor revision of the thesis and/or passing of courses that you are currently taking.
2. Conditional acceptance - This means that your committee will sign the *Report on Thesis Defense* in the future, after you fully satisfy one or more of the following:
	* A major revision of the thesis
	* Action(s) to correct a given deficiency in the defense such as additional reading and report or a correction in statistics
	* The satisfaction of a deficiency in your Program of Study
3. Failure - This means that you will be dismissed from the graduate program without receiving a degree. Without exception, a decision of failure will be reviewed by The Graduate School and the Department Head.

It is the student’s responsibility to find and bring all appropriate paperwork requiring committee signatures. Once your defense is complete, it is your responsibility that all your committee members sign the *Defense of Thesis Form*. If your committee requires revisions to your thesis prior to final submission, these changes must be made and approved before you can obtain required signatures. The Earth Sciences office will obtain the signature of the Department Head and forward it to TGS for signatures.

### Thesis Submission

After your thesis/dissertation defense and approval by your graduate committee, your thesis/dissertation will need to be submitted to The Graduate School. The Graduate School checks the formatting of your thesis for online publication to determine how well it adheres to the requirements. Upon final approval of your thesis by your committee, you have the responsibility to complete the *Electronic Thesis/Dissertation (ETD) Approval Form,* which must be signed by each committee member and submitted for additional signatures. The Graduate School requires students to submit the electronic version of their thesis/dissertation. There are specific guidelines for formatting the printed version of the thesis which differs slightly from the electronic version. The Permission to Use Form must be bound into any copy for public use.

Approval of the thesis will be defined by the signature of the Graduate Dean only after the thesis has been judged to meet all expectations. A thesis is considered completed when accepted by the MSU Library in an electronic format. M.S. candidates must then provide a digital copy of this electronic file to be posted to the department website.

The thesis must be defended and the final file submitted to the Graduate School on or before the 14th business day prior to the end of the semester in which the student intends to graduate.

If you have been unable to meet the graduation requirements before the semester deadline, you must submit the *Withdraw My Application for Advanced Degree* to TGS. It may only be submitted online. You must then submit a new application and another fee for the correct semester.

## MSc Planning Checklist

#### Within your first semester:

* Enroll in the two credit Graduate Seminar for all incoming students (if Fall term)
* Review your research plans individually with potential committee members and request their feedback.
* Choose and confirm your Graduate Committee members.
* Complete a Program of Study form and submit to the Department of Earth Sciences
* Complete and submit a Thesis Proposal with approval of your major advisor

#### Within your second semester:

* Meet with committee members to provide research and coursework updates and request their feedback
* Review expectations for the Comprehensive Exam with committee members

#### Within your third semester:

* Hold a committee meeting or meet with individual committee members to provide research and coursework updates and request their feedback
* Hold a Comprehensive Exam
* Revise and resubmit the Program of Study, if necessary

#### In any subsequent semesters:

* Plan to hold a committee meeting or meet with individual committee members at least once a year to provide research and coursework updates and request their feedback

#### In your planned final semester:

* Enroll in at least 3 credits the final term during which you intend to graduate.
* Submit the *Application for Advanced Degree* to The Graduate School (TGS) before third week of the term.
* Provide a complete thesis draft to committee members and acquire approval for defense at least 14 days before defense date
* Advertise your thesis talk and provide a complete copy of your thesis manuscript to the front office 14 days before the defense date.
* Defend thesis and bring necessary paperwork to defense.
* Make appropriate revisions.
* Ensure *Defense of Thesis Form* is signed by the committee and submitted once thesis is approved by the committee
* Complete the *Electronic Thesis/Dissertation (ETD) Approval Form* and submit formatted thesis to Graduate School no later than 14 days before end of the term. Your committee must sign this form.

# Doctoral Degree Program Requirements in Earth Sciences

## Program Overview

This document follows the Graduate School Rules for a Doctoral Degrees (Policy & Procedures at the Graduate School Webpage – http://www.montana.edu/gradschool). The Graduate School at MSU outlines minimum requirements for all departments, and therefore the departmental requirements are more restrictive. All students are expected to be familiar with both the Graduate School and Earth Science Departmental degree requirements.

The Doctor of Philosophy degree (Ph.D.) is awarded on evidence of a particular field of knowledge, the ability to carry out independent research, and to present the results of such research in a scholarly manner. The philosophy behind a doctoral degree is focused, intense research in a specific field of Earth Sciences.

Program Learning Outcomes at the PhD level include:

1. Produce and defend an original and significant contribution to knowledge in the form of a dissertation (which may or may not include professional publications)
2. Demonstrate ability to design and execute an independent research exercise
3. Demonstrate mastery of subject matter content
4. Demonstrate mastery of one or more methods of inquiry appropriate to the student’s Earth Science subdiscipline
5. Demonstrate effective written communication of substantive content
6. Demonstrate effective oral communication of substantive content
7. Familiarity with guiding principles and strategies in the ethical conduct of research and/or teaching
8. Knowledge of the pathways and key skills required to securing a professional or academic position appropriate to PhD degree holders
9. Capacity to develop effective proposals for external funding
10. Documented engagement with professional field in Earth Science subdiscipline as demonstrated through publications, presentations, and professional association activities

The resulting PhD degree will be in Earth Sciences. No specialty area such as geography, geology, GIS, or snow science will be on your transcript or degree. PhD students are required to be thoroughly familiar with all information and requirements outlined in the Graduate Catalog and Division of Graduate Education website and are responsible for meeting all dates and deadlines.

## Course Requirements

### Credit breakdown

* A minimum of sixty (60) total post-baccalaureate credits. These include both coursework and thesis credits as outlined below:
* A maximum of thirty (30) credits from a previously earned Master’s Degree at an accredited University may be applied to the 60-credit minimum for the Doctoral Degree. You must obtain advisor approval to apply these credits.
* A minimum of thirty (30) credits must be taken from MSU
* A minimum of eighteen (18) and maximum of thirty (30) dissertation credits (ERTH 690)
* A minimum of thirty (30) coursework credits
* A minimum of twelve (**12)** credits in new coursework relevant to the research focus
* A minimum of eight (8) coursework credits must be taken within the Department of Earth Sciences

### Other credit requirements

* All incoming students are required to complete three (3) credits of the ERTH-594 Seminar course, which serves as an Introduction to Graduate Study, and focuses on writing a thesis proposal, professional development, and review of regulations and expectations. The course also includes attendance and participation in the weekly Earth Sciences Seminar. It is recommended that students enroll in this course their first semester.
* A maximum of nine (9) 400-level course credits may be applied to the degree
* No 300-level courses may be applied toward the degree. However, such courses may be required if the graduate committee determines that the student has coursework deficiencies that must be made up.
* Only courses listed on the Graduate Program of Study are applicable toward the graduate degree credit requirements. The Program of Study can be updated at any time.
* All requirements here are in excess or meet those of The Graduate School. You must check their policies and procedures page to see if there are any additional restrictions (including limitations on the number of courses that are graded by pass-fail).

## Formation of a Graduate Committee

*(By end of 2nd Semester)*

### Committee Chair

The chair of your thesis committee is your advisor in Earth Sciences. Your chair was assigned when you were accepted into the graduate program in Earth Sciences and must be a tenure-track faculty member in the Department of Earth Sciences, but you may have an affiliate faculty member as co-chair. You may not change chairs without gaining acceptance in writing from your new chair and Department Head in writing. These documents will be placed in your file in the Earth Sciences office. Switching chairs may require significant changes to a research project.

### Committee Members

A minimum of four committee members is required (including your Committee Chair). The majority of the committee should be made up of, but is not limited to, faculty from Earth Sciences. Members of the committee should be individuals who can provide constructive input to your research and program of study. Check with your major professor for recommendations and/or concurrence on prospective members. Faculty should be asked if they are willing to serve.

The graduate committee chair and the department head recommend the committee composition to The Graduate School. Final approval of committee composition rests with The Graduate School. If a potential committee member is not already a tenure track member of the faculty at MSU, you must obtain Department and The Graduate School approval. You will need to obtain a current Curriculum Vita from the potential member, and your major advisor will need to write a letter of recommendation to the Department and Graduate School explaining why he/she should be a member and what he/she will contribute. Post docs may NOT serve as committee members even if they are affiliate faculty.

When all members have agreed to serve and any required documentation is provided, their names and signatures are required on the Graduate Program of Study and Committee Form to show their willingness and to give their approval to your Program of Study.

## Outlining a Program of Study

*(Recommend within 2nd semester, and no later than end of 3rd Semester)*

Meet with your Graduate Committee members to plan the courses you will take and the sequence for your graduate program. Your Program of Study should reflect your background and the knowledge base necessary to achieve a broad understanding of Earth Science. The major professor and student's graduate committee will determine additional specific course requirements for completion of the Doctor of Philosophy degree. In some cases, competency in a foreign language may be required by the student’s graduate committee. This paperwork should be turned into the department by the end of the 1st semester. Based upon their evaluation in the Qualifying Examination, your Committee may suggest changes to your Program of Study.

By the end of their first semester, students must submit the form to the department for the signature of the Department Head and for forwarding to The Graduate School for the Dean’s signature. Committee members approve and sign your final Graduate Program of Study and Committee Form. This form requires the signatures from the full committee for approval to show their willingness to serve and to give their approval to your Program of Study. The graduate administrator will forward the form for approval from the Department Head and TGS. The Program of Study can be updated at any time. Once a course has been taken, (received a grade) it cannot be removed from the Program.

If you do not meet the deadline for filing your program of study/committee form with The Graduate School, a HOLD will be placed on your registration until it is approved. There is a $30 fee from the Graduate School for processing. No charges are made for changes. You will be responsible for this fee unless your advisor specifically approves payment.

## Thesis Proposal

*(Recommend within 2nd semester, and no later than end of 3rd Semester)*

Your thesis topic is selected in consultation with your advisor and your committee. The topic may be part of a funded research project. If you receive a graduate Research Assistant appointment, the Department may require that you sign a letter of agreement between the principal investigator and the student which outlines the ownership of data, the scope of the thesis with respect to the grant, and the number of hours per week the student must work on the grant separate from the time dedicated to the thesis, and the relationship between grant and the thesis.

You should begin your thesis proposal development during your first semester in residence. Your proposal should be developed in consultation with your advisor and committee. The proposal is submitted as part of the qualifying exam (see below) and must be approved by the committee.

## Qualifying Examination

*(Recommend within 2nd semester, and no later than end of 3rd Semester)*

All doctoral students will be required to successfully pass the written Qualifying Examination and orally defend their written research (dissertation) proposal during the first year of residence, typically late in the second semester of residence. The written qualifying examination shall consist of:

1. The dissertation proposal including a thorough literature review of the research problem
2. An in-depth essay on the trends and future directions of the candidates chosen field of study as defined by the dissertation chairperson and committee. The format of this paper is determined by committee, but typically follows a review paper format with 5,000 – 10,000 words.

The oral defense will also include questions on the written "trends and future directions" essay. Doctoral students are offered one opportunity to successfully pass the written qualifying exam and oral qualifying exam. It is typical that a committee request and require proposal revisions. The Qualifying Exam should not be taken in summer or during semester breaks. Please plan accordingly. Exceptions to this rule must be obtained with written approval by the thesis committee and department.

It is the student’s responsibility to set up the Exam time with their committee, and bring all appropriate paperwork needing signatures.

## Comprehensive Examination

*(Before defense of thesis)*

### Overview

The Comprehensive Exam includes both a written an oral examination. The student should speak with each Committee member to ascertain what subject matter that member will hold them responsible for knowing. Successful completion of the Comprehensive Exam advances a PhD student to doctoral candidacy

The Comprehensive Exam should not be taken in summer or during semester breaks. Please plan accordingly. Exceptions must be obtained with written approval by the thesis committee and department. You must be registered for 3 credits when you take the exam and have completed 75% of your course work.

### Written Component

Each Committee member composes their questions and determines an amount of time that the student may have to answer their questions. The typical range is from 2-4 hours of continuous time (not including breaks); in cases in which either field or laboratory content is included in the written exam component, this may range up to 8 hours. The student’s dissertation advisor collects the questions from each Committee member and then administers the exam over 4 days to their student (one Committee member exam-component per day). The student gives each completed exam component to their dissertation advisor and respective Committee member.

### Oral Component

The written exam is followed by an oral exam that is focused on elaboration, elucidation, and (or) clarification of the written components. It is administered by the entire committee over a ~2-3 hour period of time. It is the student’s responsibility to ensure that all committee members are available when scheduling the comprehensive examination. The Graduate School requires the entire Committee to be present at any oral exam (qualifying exam, comprehensive exam, and defense). See the Graduate School rules for Video Conferencing for Examinations and Defenses. The oral component of the comprehensive exam must be held within 2 weeks or less of the completion of the written component.

### Approval and Passage

The comprehensive examination is graded with either a passing or failing grade determined by a majority vote of the student’s approved graduate committee. This vote is based on the student’s overall performance on both the written and oral components. The graduate committee and department head are responsible for submitting written notice of the results of the comprehensive examination to the student and to The Graduate School no later than five (5) business days after the examination is held or after each section is administered. The form is to be submitted to The Graduate School by the department.

The student may be allowed up to two (2) total attempts to pass the comprehensive examination. At least six (6) months must elapse before the second (2nd) examination attempt. Failure to pass the second (2nd) attempt results in termination of graduate study and dismissal from the academic program. Students who are dismissed from the program due to a second (2nd) failed attempt are ineligible to reapply to the same degree program.

It is the student’s responsibility to set up the Exam time with their Committee’s approval, notify the department secretary and to reserve a suitable room, as well as necessary presentation equipment (laptop and projector) for committee meetings and examinations. It is the student’s responsibility to bring all appropriate paperwork.

## Public Presentation

*(Approximately halfway through course of study)*

All PhD candidates are required to present a minimum of one talk on their research in the Department of Earth Sciences seminar program. This professional seminar is typically given in the style of a typical professional talk (~45-minute talk with 15 minutes for questions) approximately halfway through their course of study.

## Writing a Thesis

### Overview

Your thesis is the high point of your degree work. It will also open the doors to future research opportunities. This means that its degree of scholarship should be acceptable for peer-reviewed publication in your field of expertise. The writing process is challenging, and you should expect to make revisions. Your fellow graduate candidates will be excellent reviewers for the early drafts. Ask you major professor to comment on a more polished draft before you consider presenting it to any other graduate committee members. Remember that everyone must rewrite/revise their thesis/dissertation. Be prepared for an individual committee member to require substantial changes before they agree that you are ready for your formal defense.

### Format Considerations

You must understand and use the format requirements for The Graduate School. Your Graduate Committee may set additional requirements to follow. The expectation of your PhD thesis is that it represents published or publishable work. You therefore can select options that will minimize your need to rewrite material before submission to a journal, monograph series, etc. You should consider writing one or more chapters of your thesis in the format for the journal in which you intend to publish. Consult with your thesis committee on their expectations for thesis format. 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. Often, the format for journals is not identical to The Graduate School (TGS) format in all cases. You will need to work with your advisor to meet both requirements.

Prior to writing your thesis, and during the writing process, refer to the online “Preparation Guide for Theses, Dissertations, and Professional Papers” available on The Graduate School website. Understanding the formatting will help you avoid rewriting based on formatting errors. You can save yourself a lot of effort if you read and follow the formatting requirements in the guide for both the electronic and printed versions.

It is your responsibility to meet TGS guidelines for formatting your thesis before it is accepted by your Graduate Committee, the Department Head, and the Graduate School. All theses are now submitted electronically to the TGS. Thesis formatting guidelines are available on the TGS website, and a representative from the TGS is available to assist you with formatting. Contact this person early in the writing and formatting process.

## Thesis Defense

### Overview

The PhD Thesis must be formally defended to your graduate committee. The Defense of Thesis will entail:

1. A public Seminar that is open to all faculty and graduate students, in which your research and conclusions are presented with an opportunity for questions from the audience.
2. A closed-door Defense Meeting with the Graduate Committee. The Committee Chair must attend in person. See the associated rules for “Video Conferencing for Examinations and Defenses”.

IMPORTANT: Do not schedule your Defense of Thesis until you have clear indications that your committee is ready to approve your work.

### Scheduling

Students must be registered for at least three (3) credits in the term during which they want to graduate.

The *Application for Advanced Degree* must be submitted to The Graduate School before the deadline of the semester in which you plan defend your thesis. This date is usually the third Friday of the term.

Public presentation and defense must be completed during the period of scheduled classes in the academic year, and should not be held during final exam week, holidays, or summer term. Exceptions must be obtained in writing from the thesis committee and department.

The defense may only be scheduled when the committee agrees that a complete thesis draft is ready. Approval may take some time. In general, each time a draft is submitted to the Chair or committee, the student should not expect a response in less than fourteen (14) days. The chair of the committee must approve a defense draft before the thesis is submitted to the committee. Note: this implies that at least 28 days between the submittal of a thesis for review and the defense. The defense must be completed on or before the 14th business day prior to the end of the semester in which the student intends to graduate.

You must notify both The Graduate School and the Earth Science Department at least fourteen (14) daysbefore the scheduled date of your defense. It is your responsibility to ensure that allSupervisory Committee members can be present and that the seminar time and date are publicly advertised (the office staff may offer assistance).

Typically, the public presentation is approximately one hour (~45 minutes presentation and with at least 15 minutes for questions from the audience). It is your responsibility to find a date and time that fits the schedule of each committee member, including the Graduate Representative if you have chosen this option. In addition, you must broadly advertise the seminar at least fourteen (14) days before the presentation. You are required to submit an announcement for the MSU Calendar of Events. The graduate administrator can help to advertise within the department, but you will probably want to so some additional advertising in other departments which share research interests.

Because it is a formal presentation, the seminar should be well prepared and include visuals and/or media. Be sure to include these insights into your research work:

* A clear statement of the question that your research addressed
* An explanation of the importance of your question, considering earlier work by others
* A presentation of the methods and/or techniques of research and analysis of the data
* A clarification of any weaknesses in your data and/or how your might have done the research differently given the experience that you gained
* The conclusions supported by your data and their comparison with other findings

### Thesis Approval

Following the defense, the committee will vote on the quality of your thesis and your oral examination. Three decisions are possible:

1. Acceptable - This means that your committee will sign the *Report on Thesis Defense*, brought to the meeting by your advisor*,* recommending you be granted an advanced degree. This often includes minor revision of the thesis and/or passing of courses that you are currently taking.
2. Conditional acceptance - This means that your committee will sign the *Report on Thesis Defense* in the future, after you fully satisfy one or more of the following:
	* A major revision of the thesis
	* Action(s) to correct a given deficiency in the defense such as additional reading and report or a correction in statistics
	* The satisfaction of a deficiency in your Program of Study
3. Failure - This means that you will be dismissed from the graduate program without receiving a degree. Without exception, a decision of failure will be reviewed by The Graduate School and the Department Head.

It is the student’s responsibility to find and bring all appropriate paperwork requiring committee signatures. Once your defense is complete, it is your responsibility that all your committee members sign the *Defense of Thesis Form*. If your committee requires revisions to your thesis prior to final submission, these changes must be made and approved before you can obtain required signatures. The Earth Sciences office will obtain the signature of the Department Head and forward it to The Graduate School for signatures.

### Thesis Submission

After your thesis/dissertation defense and approval by your graduate committee, your thesis/dissertation will need to be submitted to The Graduate School. The Graduate School checks the formatting of your thesis for online publication to determine how well it adheres to the requirements. Upon final approval of your thesis by your committee, you have the responsibility to complete the *Electronic Thesis/Dissertation (ETD) Approval Form,* which must be signed by each committee member and submitted for additional signatures. The Graduate School requires students to submit the electronic version of their thesis/dissertation. There are specific guidelines for formatting the printed version of the thesis which differs slightly from the electronic version. The Permission to Use Form must be bound into any copy for public use.

Approval of the thesis will be defined by the signature of the Graduate Dean only after the thesis has been judged to meet all expectations. A thesis is considered completed when accepted by the MSU Library in an electronic format. M.S. candidates must then provide a digital copy of this electronic file to be posted to the department website.

The thesis must be defended and the final file submitted to the Graduate School on or before the 14th business day prior to the end of the semester in which the student intends to graduate.

If you have been unable to meet the graduation requirements before the semester deadline, you must submit the *Withdraw My Application for Advanced Degree* to TGS. It may only be submitted online. You must then submit a new application and another fee for the correct semester.

The initial fee is currently $30 for processing. A re-audit costs $20 each semester of application. You will be responsible for graduation fees unless your advisor specifically approves the payment.

## PhD Planning Checklist

#### Within your first semester:

* Enroll in the two credit Graduate Seminar for all incoming students (if Fall term)
* Review your research plans individually with potential committee members and request their feedback.
* Seek out Graduate Committee members.

#### Within your second or third semester:

* Complete a Program of Study form and submit to the Department of Earth Sciences
* Complete and submit a Thesis Proposal with approval of your major advisor
* Participate in the Qualifying Exam

#### In subsequent semesters and prior to your final semester:

* Hold a committee meeting every semester to provide research and coursework updates and request committee feedback
* Revise and resubmit the Program of Study if necessary
* Hold a Comprehensive Exam
* Present a minimum of one professional talk during the ESCI seminar series

#### In your planned final semester:

* Enroll in at least 3 credits the final term during which you intend to graduate
* Submit the *Application for Advanced Degree* to The Graduate School before third week of the term
* Provide a complete thesis draft to committee members
* Acquire approval for defense at least 14 days before defense date
* Defend thesis and make appropriate revisions
* Ensure *Defense of Thesis Form* is signed and submitted once thesis is approved by the committee
* Complete the *Electronic Thesis/Dissertation (ETD) Approval Form* and submit formatted thesis to Graduate School no later than 14 days before end of the term

# Important Program and Employment Matters

## Beginning Employment

A GTA, GRA, or GSA appointment requires that you are hired by MSU (A “fellowship” is not an employment category).

The first time you are appointed, we will need to submit specific employment forms before you can be paid. You will need to fill out a withholding statement (a W-4) and an Employment Eligibility Verification form (an I-9). In addition, there is a Vehicle Use Form and a Decedent’s Warrant.

You must have appropriate ID to fill out the I-9 form. This may be your Social Security Card and one other picture ID, such as your driver’s license or your current passport. See “Payroll” for more details.

## Paperwork and Documentation

Throughout the course of your graduate study, you will be required to complete paperwork to document your progress toward your degree. The office has blank copies of each of the documents that have been approved for submitting the details of your progress. Your advisor and/or the office may or may not remind you of the deadlines for completing requirements that are specific to your program. You are ultimately responsible for submitting all your paperwork verifying the completion of each step toward graduation and in meeting all deadlines.

There are consequences if forms are not filed correctly or in a timely manner. Students will have a HOLD placed on registration for not filing the Graduate Program of Study prior to the end of the second (for Master’s students) or third semester (for PhD students) in attendance. If you have any questions about when forms need to be filed, check The Graduate School web site or call their office, at 994-4145. You may also inquire in our department office. All forms are also convenient to find online!

The department has a file for each graduate student which contains all completed documentation of progress. When a document is submitted for approval (all required signatures), a copy is also made to verify that the paperwork was submitted on time. Since officials in several departments must sign for their approval, please allow several days for meeting a deadline. The graduate administrator can keep you informed about the progress of your paperwork. If you have not heard whether your submission has been approved, you may call the office about your concern.

## ACH or Direct Deposit

There are two forms of automatic deposit of payments from MSU. If you are paid through Human Resources, you must fill out a Direct Deposit Request form for payroll direct deposit. If you receive payment through University Business Services, you are a “Vendor” and should request the Montana State University ACH Authorization form (both request forms are available in the office or online). If you will be requesting reimbursement for any travel or purchases for the grant, you are a “Vendor.” It is required that you request both forms of direct deposit. You may often be in the field when a check might arrive, you will receive your payment more quickly, and you will save the money required to print a check! If you do not have direct deposit, your paycheck will be held until you pick it up for up to three months.

There is no charge for ACH. A deposit slip or voided check from your checking or savings account must be attached to the request. You may apply online for payroll ACH. Your first paycheck or vendor payment may not be direct deposited if it is submitted after the 20th of the month; the university needs time for a trial run to make sure everything is set up correctly. Subsequent payments will be directly deposited into your account and you will be notified via email.

## Fellowships

Some grants provide support with a fellowship. A fellowship provides a monthly stipend from which expenses are to be taken such as tuition, fees, and books. You will not receive this stipend from Human Resources. Instead, it is requested from University Business Services through the department office once a month around the 5th of the given month. Thus, you will receive a payment DURING the month in which you are appointed, usually during the third week of that month. For example, if you are appointed from August 1 through December 31, your first stipend will come in August and your last would come during December.

Another difference is that NO taxes are deducted. You are responsible for documenting and reporting your expenses to the IRS for taxes at the end of the calendar year. You are taxed on expenses not related to your academic costs. You will receive a copy of the appointment which includes more details of your responsibilities to the IRS.

## Graduate Teaching Assistantships (GTA)

Graduate Teaching Assistants (GTAs) are awarded during the Graduate Application Process. GTAs are nominated by their prospective advisors and evaluated by the faculty each semester of application. You will be notified in writing of the offer of a GTA position. Acceptance or rejection of the GTA assignment must be in writing or email. Please refer to the online “MSU Graduate Student Appointment Policies and Procedures” for details of your appointment.

Graduate students who are appointed as Teaching Assistants are required to be enrolled in classes to be employed. During Spring or Fall Semester, a student must take a minimum of six credits. There are currently no Summer GTA appointments available apart from the Earth Sciences Field Camp. These GTAs are assigned by a separate application process each year. Be sure to check the enrollment requirements for any paid position on campus.

You will receive a tuition waiver for a minimum of 6 credits from TGS. Resident tuition for up to 9 credits may be waived. You are requested to apply for residency during that year if you intend to register for less than 6 credits at any time. The tuition waiver and base stipend do not cover health insurance or student fees. You must pay all fees or obtain funding for them and request the necessary paperwork to cover fees. Please register at least 3 weeks before the start of the semester so there is no delay in receiving your tuition waivers.

Your signature is required on an appointment agreement form describing your course assignment and responsibilities before your appointment is considered complete. This is your acceptance of the assigned position.

You cannot be appointed until you have registered for your credits You do not receive your tuition waivers until you have confirmed your attendance! Do not wait.

If you are accepting a position as a GTA for the first time, The Graduate School conducts an orientation that is mandatory. You will need official exemption from the Department Head and The Graduate School if you cannot make this orientation. You will not be required to attend the orientation a second time.

## Graduate Research Assistantships (GRA)

Graduate Research Assistantships may be available to students; qualifications and the amount of the stipend are determined by grant specifications and your advisor or funding agency. You are responsible for knowing who handles your appointment and the amount/level of funding provided. This information is typically listed in a graduate offer letter but may change over your course of study if additional opportunities and funding arise. Please refer to the online “MSU Graduate Student Appointment Policies and Procedures” for details of your appointment.

Graduate students who are appointed as Research Assistants are required to be enrolled in classes to be employed. During each Fall and/or Spring Semester of support, a student must take a minimum of six (6) credits. Speak with your advisor concerning summer enrollment, as there may not be coursework or tuition funding for summer.

You cannot be employed until you have registered for credits and confirmed your attendance. Enroll early so that there are no delays in your funding for tuition, fees, or your stipend. If you are late in registering for the required number of credits, your appointment approval will be delayed, and your first payments may be late. Your signature is required on an appointment agreement form describing your responsibilities before your appointment is completed.

## Tuition Coverage

Depending upon the grant or funding source under which a student is working, tuition expenses and other fee waivers may be available. All full GTA’s (19 hours/week) are eligible for between six to ten (6-10) credits of resident tuition waivers each semester that they are assigned a position. The number of credits waived decreases for part-time GTA’s (less than 19 hours/week). Check the Graduate School’s web page to understand how many waivers your position will provide. Tuition waivers can only be used for courses that are approved on your Program of Study.

You do not receive tuition funding or fee waivers until you have confirmed your attendance and registered for classes. If you have not registered before the start of the semester, you risk losing some tuition waivers or being charged a late fee. Please register at least a month before the start of the semester so that there are no delays in the depositing of the funds into your student account. Your MyInfo account will allow you to view your status.

A late fee is charged if you do not confirm your attendance before the payment deadline. This fee is not automatically paid from your funds. You are responsible for paying a late registration fee unless there are circumstances beyond your control.

If you are a non-resident, you may be eligible for GATA Designation (see below). This designation is available only after you register for classes.

## GATA Designation

MSU has set the following criteria for awarding the special tuition rate to nonresident GTAs and GRAs. If you meet the criteria below, you will be appointed with the GATA designation as with your GTA or GRA appointment. This designation means that even though you are a non-resident of Montana at the time of admission, the non-resident tuition will be waived. You will be billed for only the resident tuition. GTA’s and GRA’s must be enrolled in a graduate degree-seeking program for a minimum number of 6 credits in the semester of their appointment.

## Health Insurance

Although it is your responsibility to be sure that you have health insurance while you are in the degree program, these basics may help you to make your decisions.

* All students must have proof of health insurance.
* You may purchase student health insurance. Find out costs and coverage to see if this is right for you. You must enroll in a minimum of 7 credits per semester to be automatically eligible for student insurance (this does not apply to summer semester).
* Graduate students have the option to contact Student Health Service directly and to request the student health insurance (with health and dental fees) even if you are registered for less than 7 credits. This is your responsibility.
* All graduate students may use the Student Health Service, even if they have declined the student insurance coverage. If you have not paid the Student Health Service fee, you may be charged the fee during your first visit.
* When you choose to be covered by student health insurance, you are required to pay the health and dental fees as well even if you are registered for less than 7 credits.
* Contact Student Health Services if you need insurance for a dependent(s).

## Payroll

Payroll for a GTA, GSA or GRA is handled through Human Resources. Taxes will be deducted per the information on your W-4 and your student status.

A Fellowship Appointment is required by some grants. It is not payroll, and taxes are not taken out ahead of time. It is your responsibility to understand your tax obligations.

The department recommends that you arrange to be paid by direct deposit (your paycheck directly deposited into your bank account). There is no extra charge for this, and the money would be available in your account the day that paychecks are distributed. Hard checks may not be mailed for 30-90 days. If you change your mailing address, you must file a form with Human Resources, or the old address will automatically be used. You may change your direct deposit preferences online. You must also inform Personnel and Payroll Services if you close a direct deposit account.

Your W-2 for taxes is available online through the MyInfo portal unless a printed form is specifically requested.

If you are employed by MSU in any way, be sure that you know the number of credits for which you must be registered to keep your student status, or you may find unwelcome employee deductions from your paycheck.

## Purchases

Any purchases will need to be approved by your advisor or funding faculty before you make them. Different advisors have different policies or procedures. Know their preferences and know the index number to which charges are to be made. Be aware that new MSU policies and grant funding do not allow office supplies and equipment to be billed to federal grants unless they are specified in the budget.

Purchases of “Computer Hardware, Software, and IP Addresses” may require additional procedures.

If you will be purchasing supplies from a local business, check with your grant accountant to determine if a direct billing account is available. If direct billing is possible, please make sure you get all the information about how to use the direct billing prior to using the service. In general, write the index number to which the amount is to be charged and sign your name legibly on the receipt. Turn in all receipts to the appropriate accounting staff. If you do not turn in your receipt, or if the information on the receipt is not legible, your ability to use the direct billing may be rescinded.

You may save a lot of money by using a department account for large companies. Check with the accountant the first time you order research supplies or use Amazon.com.

If direct billing is not available, you may need to use a Department Credit Card to complete the purchase. The department accountants or associated faculty must pre-approve use of a department credit card. If you place an order with a department credit card, you are responsible for submitting a receipt with your name, purchase category (e.g., field supplies, travel) and index number. These are submitted through the Chrome River web application. All invoices or receipts must be itemized.

## Reimbursements

If you use your own cash or a credit card to purchase items necessary for your degree program, you may request reimbursement (see also “Travel” below). You must provide a detailed list of all purchased items on either an invoice or a receipt and provide the index number when requesting a reimbursement. The copy of the signed credit card slip is NOT a detailed list! You must be able to justify any unusual purchases. You may not be eligible for reimbursement for office supplies. Be sure to check the budget for the grant before you spend your own funds and get approval from your advisor.

* Reimbursement must be requested within 90 days of the purchase.
* Be aware that reimbursement may take up to a month or longer.

## Travel

Below is a summary of expectations. Please research the most current policy and procedures details, as these may change.

* For all out of state travel, including trips to Yellowstone National Park, (WY), you need to submit an out of state Travel Justification form with your advisor’s approval *10 days prior* to travel.
* All purchases of airline tickets are to be made using a department credit card. You will need a completed travel justification form when you make your reservations.
* Some grants require only USA-codeshare flights, meaning that you cannot charge a foreign operated flight to that grant. Make sure to review any purchasing requirements and restrictions with the funding agent or your advisor.
* Your boarding passes may be requested as evidence that you completed the trip.
* Itemized receipts are required for all expenses claimed during the travel. There is a per diem rate for meals. If you are not sure which expenses can be claimed, ask before you spend the money.
* You may use a personal vehicle for travel and claim mileage reimbursement. A Vehicle Use Agreement form must be filled out before you do any driving for department business. The higher reimbursement rates are available only if you have contacted ENTERPRISE and confirmed that there is no effective vehicle available for your use before you use your personal vehicle. Mileage reimbursement rates are subject to change, so for current rates check the OPS information page. If you have any questions, please contact the office staff.
* Rental of a building, rental deposits, payments for utilities, and phone and/or internet services at a field study site are not travel expenses. Payment for these costs must be arranged beforehand with the Department.

## Leave of Absence and Continuous Enrollment

To maintain graduate status, a student must be enrolled in three (3) or more credits (including thesis or dissertation) each semester, excluding summer semester. Continuous enrollment policy
<http://www.montana.edu/gradschool/cat_continuous_enrollment.html> is applicable for:

***Master’s students***

* After completion of required content course work on the approved graduate Program of Study (content coursework excludes thesis or dissertation credits)
* **Or, a**fter the student passes any portion of the comprehensive examination.

***Doctoral students***

* After passing any portion of the comprehensive examination.

Students to whom continuous enrollment applies may have leave of absence from the university for a maximum of three semesters, excluding summer term, without penalty. These leaves of absence may be taken as consecutive or individual semesters. No form or approval from The Graduate School is required to be absent. As a courtesy, we ask that you discuss the absence with your department.

Registering for less than 3 credits is a leave of absence. Students who want to maintain access to MSU library resources may register for 1-2 credits. Students who are not registered (zero credits except summer semester) are not entitled to use any university facilities including the library. A comprehensive exam or defense of thesis/dissertation may not be conducted during a semester off (less than 3 credits). Failure to maintain continuous enrollment (3 or more credits) constitutes evidence that the student has resigned from the degree program and Montana State University.

Excess leaves of absence may be approved for documented medical reasons or military duty. The Intent to Register form is required to be completed before you may register for courses after a leave of absence.

## One Credit Extension Policy

A One Credit Extension is only available to students who have completed all requirements except defense of thesis (or thesis approval) and require a short extension past the end of the term to graduate. You must withdraw your prior application for graduation and reapply with the request for the one credit extension.

To be eligible for the one credit extension these requirements must be met:

1. You must defend before the end of the semester in which you applied to graduate. You must be registered for 3 credits at the time you defend. You cannot defend between semesters.
2. Your thesis publication approval must be submitted to the Grad School up until 5 pm of the first day of the immediately following semester. If you miss the start of the semester deadline, you must register for 2 additional credits that semester. You may also take a leave of absence if you do not complete degree requirements before the 1-credit extension deadline. However, you must apply to graduate the following semester and you again register for 3 credits minimum.

You are NOT eligible for a non-resident tuition waiver or a research assistant appointment during the 1 credit extension semester. Students cannot be paid as a GRA or GTA if they are enrolled in less than 6 credits.

# Other Student and Office Essentials

## Orientation Meeting

Every graduate student is expected to attend a The Graduate School orientation meeting/reception at the beginning of fall or spring semester each year. The Department may also hold a required orientation for Graduate Students at the start of the semester.

## E- Mail Services

You are required to check your preferred email address regularly. The “preferred email” has a formal designation in the MSU system and can be defined and updated in your MyInfo student portal. It is necessary that the university and department have your current email address.

## ID/Cat Card

When you are accepted into the Graduate program here at Montana State University, you are assigned a student identification number. You will need to obtain the MSU Cat Card with this number for identification. This card is often required for building and room access. It allows access to the gym, library checkout, and other campus services. It would be your ID for any student discounts at local businesses, as well.

You will be charged a onetime fee when you first register for the cost of your MSU Cat Card. There is a web page for the Cat Card, www.montana.edu/catcard, where you can add money to the card balance.

## Keys

All graduate students will be supplied appropriate office space. Some advisors assign space in another building. A GTA may be requested to obtain a key for the assigned lab classroom. To obtain a key, an advisor or department staff must approve a key request. Keys (or ID card access) to buildings and rooms not managed by the Department of Earth Sciences may require approval from other departments. Speak with your advisor and/or TA supervisor to know what keys are required and approved.

If a key is lost, please report it as lost to both Facilities Services and the Earth Sciences Department. A new Key Requisition Form will be required. There may be a charge for a lost key. Any university keys should be turned in to Facilities Services before you leave campus at the time of your graduation. You may be requested to verify that you have returned all keys.

## Parking

Parking is handled through the University Police Office located on 7th Avenue near Kagy in the Huffman Building. Parking passes should be purchased online. Every car that is parked in a University Parking area or on a street with designated parking signs must be registered. Each parking area has an associated parking designation and cost. If you do not have a parking permit, or your vehicle is parked incorrectly in a designated lot or parking area, you will be fined for each infraction. Your registration for courses or your transcript could be held if you have any outstanding fees or fines. Be aware that you must call University Police (x2121) for permission to park in any loading zones (limited to 20 minutes). Parking Services or the University Police will issue tickets for improperly or unauthorized vehicles, even on nights and weekends

## DegreeWorks and Grades

You can access your grades online in the Services for Students (My Info) page of the MSU website and in DegreeWorks. Unofficial transcripts and degree progress can also be tracked on this site.

## Computer Hardware, Software and IP Addresses

If you need a laptop and a power point projector for campus presentations, these may be available for loan through the department. The sign out book for reserving the computer and/or projector is in the main office.

IMPORTANT: You may request a new IP. The request for a new IP address or to transfer an IP address is available online. Speak with your advisor before you buy any hardware or software as special procedures are required for each.

There are specific procedures for disposal of any computer equipment. Please check in the office before you get rid of any equipment.

## Office Supplies

Only office supplies needed for teaching classes (i.e., your duties as a GTA) are provided by the department. Purchase your own supplies for projects, research needs, or personal use as directed under “Purchases” below. IMPORTANT: Before buying or charging any office supplies to a grant, find out if such supplies are specifically allowed by the grant and obtain any necessary permission from the grant holder/PI.

## Photocopying

The department photocopier is not available for personal use.

If you need to make copies for your research project, verify through your advisor that copies can be made on your grant. Some grants do not allow for office costs. Then check with office staff for the copier user number assigned to your grant. You should write down or memorize your copier I.D. number for using the copier to save time for yourself and the staff.

Graduate Teaching Assistants making photocopies for class instructional purposes should use a copy number reserved for this purpose. Check with the staff regarding which I.D. number is to be used. The I.D. may be specific for your assigned course.

Plan your copying needs well in advance. If copying jobs are too large for the copier to handle or the machine, you will be required to take the copy job to University Printing Service, CopyCats, the Library, or off campus. These charges may be made to a grant if approved by your advisor, or you may request to use the department account number.

The department copier cannot print on or accept all paper, including “write in the rain” paper.