UNIVERSITY OF ROCHESTER

DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES

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**Disclaimer**
WELCOME TO EES!

Welcome to all incoming graduate students, and welcome back to all of you who have been here before. The purpose of this handbook (which is updated every summer) is to provide you with answers to some of the more commonly asked questions; to inform you of common deadlines and fees; and to lead you through the department’s requirements for M.S. and Ph.D. students. We hope that you will find this handbook useful as a guide and reference.

The Graduate Advisors:

For the Department:
Director of Graduate Studies: Professor Vasili Petrenko, Hutchison 228, 276-6094, vasilii.petrenko@rochester.edu

Programs Coordinator: Marissa Sette, Hutchison 227, 275-5713, msette@ur.rochester.edu

For AS&E; Graduate Education and Postdoctoral Affairs (GEPA):
Phone: (585) 275-4153
Email : ASEGEPA@rochester.edu
Lattimore 206
Dean of Graduate Studies: Nick Vamivakas - nick.vamivakas@rochester.edu
Assistant Director of Academic Operations: Jon Herington - jonathan.herington@rochester.edu

For the University:
Wallis 259
University Dean of Graduate Studies: Melissa Sturge-Apple
Manager of the Office of Graduate Studies: Gretchen Briscoe - gretchen.briscoe@rochester.edu

Arrival and Orientation:

Departmental:

New students should set up a brief meeting with the department programs coordinator when they first arrive in the department. New students will also have an opportunity to meet with the director of graduate studies at the beginning of their first semester.

AS&E GEPA:

The Office of Graduate Education and Postdoctoral Affairs in Arts, Sciences & Engineering will host an online orientation for incoming graduate students. The orientation program is designed to introduce you to our graduate education team and current students, and to inform you of important policies and available resources at the University. While most programming is optional, please note that there will be required trainings to complete.

The University’s learning management system, Blackboard, will be used to house online trainings and information sessions, along with links to important documents and University websites. You will receive an email in early August letting you know to access the online orientation in Blackboard. Additional programming may be announced prior to the start of the fall semester.
General advice for getting started with your graduate program
We don’t expect first-year students to come here with a defined research plan, although some do. Your first two semesters here provide some opportunity to explore your interests and plans. The goal is for you, in consultation with your advisors, to devise course and research programs which are feasible and fit your own talents and aspirations. It is primarily your responsibility to consult with your primary advisor and develop a suitable program within the basic departmental guidelines described in this handbook.

Try to determine your initial advising committee (this can change later) by the end of your second semester. These faculty members (3-4 from within the department) will, in the case of Ph.D. candidates, write your qualifying exams, or for the Masters (2-3 from within the department) will be your defense committee or those responsible for reading your essay. One of these faculty members should be your Thesis Advisor and will be the primary person guiding your research. Meet with your thesis advisor regularly and keep them informed about your progress. This person will also guide you through your course work requirements. But we encourage all students to become acquainted with as many of the faculty members as possible during their first two semesters in residence.
UNIVERSITY ADMINISTRATIVE AND LOGISTICAL MATTERS

Net ID

This is needed to access university on-line services such as registration, health insurance information and payroll information, and can be obtained through the web site www.rochester.edu/netid/. You will need your Employee ID number (from your paycheck) or your student ID number. Contact the Information Technology Services Center (ITS) if you have any problems getting this set up. Their phone number is 275-2000 and their email address is univithelp@rochester.edu.

STUDENT I.D. CARD

You will need this to identify you as a full-time University of Rochester student. Marissa Sette will send you a letter via email stating that you are a full-time student in the department. You can take this letter to the Department of Public Safety office located at 612 Wilson Boulevard to get your ID card.

Upon the beginning of your sixth year, your ID card becomes “deactivated”. In order for you to access facilities, such as the athletic center, you will need to go to the ID card Office to extend your graduation date.

REGISTRATION

The University’s registration and related deadlines for the new academic year are posted in the main office or found at the following internet address:

http://www.rochester.edu/registrar/

Registration will be conducted in the UR Student system. You will need your net ID and password to access this site. Students can register on-line for most courses except for Reading courses. All students should consult with their advisors before completing their on-line registration. Remember that you must register before the deadline (9/9/20) even if you schedule is not finalized (or you will be fined $160 for late registration). This is especially important for our international students because it can affect their visa status. “Adds” and “Drops” can be made during the early weeks of all semesters.

HEALTH INSURANCE

All students must have health insurance coverage –either the Student Health Plan through the University or their own coverage. All students must document their choice each year. Students are responsible for paying for their own health insurance. The advisor / department covers the mandatory health fee for PhD students. Health insurance options can be accessed at http://www.rochester.edu/uhs/. You will need your Net ID and password. To complete the Health Insurance Enrollment/Waiver process, click on “Health Insurance for Students” in the pink box on the right side of the screen. If you have any questions about health insurance coverage, you can call an insurance advisor at 275-2637 or email them at insurance@uhs.rochester.edu.

To schedule an appointment at the University Health Center, please call 275-2662.
LANGUAGE REQUIREMENTS

The Department requires that all graduate students be fluent in English reading, writing and speaking. Students undertaking field work overseas may want to become familiar with the relevant foreign language. Coursework in certain languages can be taken as a “bridging course” through the university and can be paid for with your tuition waiver; this requires permission from the Dean of Graduate Studies in the College. Please see Undergraduate Credit Policy section on page 11 for more info.

All incoming graduate students whose first language is not English and who will be teaching assistants in the coming year are required to be tested for their English proficiency. The Graduate Education and Postdoctoral Affairs office will help schedule this exam with you in August of the year before you begin TA-ing. It consists of a short oral interview. Failure in these exams or failure to take these exams will result in being asked to take an additional class in the Fall semester to prepare you for TA-ing at the university.
STUDENT STIPENDS, TUITION WAIVERS, CREDIT HOURS AND TAXES, UNIVERSITY SUPPORT RESOURCES

STUDENT STIPENDS

Financial assistance in the form of stipends is allocated on a yearly basis, with separate support for the academic year and the summer months. The department is committed to supporting PhD students for a period of 5 years, provided that students are in good academic standing and make good progress in their research and with the required program milestones. Support beyond 5 years is at the discretion of the primary research advisor. Ph.D. students are typically initially supported as teaching assistants, usually for the first year of their residence here. Support for the following years and for any summer months generally comes from research grants, administered by the student’s research advisor.

TUITION WAIVERS AND CREDIT HOURS

PhD students: All full-time PhD students should register for a minimum of 9 and no more than 12 credit hours if they are a teaching or research assistant. If your tuition waiver says 12 credit hours, you must not register for more than 12 credits or you will be responsible for the cost of the additional credits. Ph.D. candidates will, when possible, receive tuition waivers for no more than 90 credit hours total (90 is also the number of credit hours required for completion of the PhD degree). The recommended strategy for PhD students is to register for 9 credits per semester, which allows a 90-credit tuition waiver to last for 5 years. These credits can be made up from some combination of formal coursework, research credits (EESC 595), and the required department seminar, EESC 499 (1 credit per semester). After reaching the 90-credit limit, PhD candidates are charged a continuation fee (presently about $1,070 per semester) to maintain their full-time enrollment.

Of the required 90 credit hours, no more than 30 credit hours may be accepted as transfer credit (on approval of the associate dean of graduate studies) for work previously taken at the University of Rochester or at another university. If you use transfer credits to satisfy Ph.D. requirements, your tuition waiver is reduced by an equivalent number of credit hours (i.e. you no longer have 90 hours of tuition waiver) [per University Regulations].

M.S. (plan A, B and 5th Year MS students) can, in some cases, receive partial to full tuition waivers. All first year Masters Students are expected to serve as teaching assistants as part of their departmental degree requirements; however, Masters Students do not receive stipends as teaching assistants. But they can be supported as research assistants if their advisor has such funds available.

Summer school courses are not covered by tuition waiver unless prior approval of the Associate Dean has been granted. Students covered by a partial tuition waiver will receive that percentage of tuition coverage for the number of credits in which they are enrolled, up to a maximum of 12 credits for PhD students (16 credits for M.S. students). For example, if you are granted a 75% tuition waiver for 12 credit hours, you will pay 25% of the tuition up to 12 credit hours and 100% of the tuition above 12 credit hours.

PAYROLL, TAXES AND FORMS

Teaching and research assistantship income is taxable (a W-4 form has to be filed at the Payroll office). The W-4 form can be accessed at the HRMS site under “employee self-service”. For non-resident aliens, an online tax compliance system known as “GLACIER” has been implemented to help expedite filing of
tax related paperwork. New international students will automatically be enrolled in the system. They will receive an email from support@online-tax.net when they arrive on campus explaining the GLACIER system and which will contain a passcode that they can use to access the system. Once the passcode and instructions are received, the student can enter information and update it as needed (for example, when your funding changes). Failure to provide adequate information could result in taxes being withheld at the maximum withholding rate. To contact a UR Nonresident Alien Tax Specialist for assistance or questions, send an email to glacier@hr.rochester.edu or call the International Student Office at 275-2866 or the Payroll Office at 275-3483.

The University is required to have an I-9 form-Employment Eligibility Verification on file for every new graduate student admitted to our department. You cannot be paid as a graduate student until this form is on file with our payroll office. Section 1 of this form must be completed by you on-line. You can access this form at: http://www.newi9.com/ Attached to this form is a list of acceptable documents which can be used to verify your eligibility for employment. Please note that these must be unexpired documents. This form will ask you to provide the following information: Employer/Company Code: 11968 (This indicates the University of Rochester) Location Number: 210560 (This indicates the Dept. of Earth and Environmental Sciences) Your date of hire: Use the start date of your assistantship (usually September 1) Once you have completed and electronically signed this document, please contact Marissa Sette for instruction on how to complete section 2.

Direct deposit to your savings/checking accounts in local banks is also available. This can be done on-line with your Payroll Net ID by accessing the HRMS system at www.rochester.edu/working and clicking on the HRMS icon on the left side of the screen.

Every student must also sign an “Intellectual Property Agreement”.

FINANCIAL AID

The university provides only a limited amount of funds for graduate stipends. The rest of the graduate student support comes from research grants. If you are supported on a research grant, make sure that you and your advisor are clear about the work you are doing; the grant and your future support depend on it. Do not take financial support for granted; it is limited and only guaranteed for one year at a time. While there is very little that you can do to change the situation regarding university funds, there are several things that you can and should do to help us with the funding for your research.

OTHER FINANCIAL ASSISTANCE

Scholarships and awards are offered to graduate students by various federal and private organizations. Some helpful web sites are www.studentaid.ed.gov and our own University Financial Aid web site https://enrollment.rochester.edu/financial-aid/
Information is also available in the College Dean’s office in Lattimore 218.

RESEARCH GRANTS FOR GRADUATE PROJECTS
There are several sources of funding available to you that you can apply for. The below is not an exhaustive list – you should check with your advisor about options. Having your own funding helps to ensure that you have reliable financial support during your PhD, provides a higher measure of independence in your research, and is a great compliment to be able to put on your CV.

1. NSF graduate research fellowships (for US citizens only). Application materials can be downloaded from the NSF website at [http://www.fastlane.nsf.gov](http://www.fastlane.nsf.gov)


If you are applying, you will need recommendation letters from more than one faculty member. Get your proposal and other necessary forms to the appropriate faculty members at least 2 weeks before the deadline – don’t expect them to write letters for you on short notice!

**Student Support**

Students in need of support are encouraged to speak with their advisor, the department’s graduate coordinator, or Katie Mott ([katie.mott@rochester.edu](mailto:katie.mott@rochester.edu)), Assistant Director of Student Support Services, in the Office of Graduate Education and Postdoctoral Affairs located in Lattimore 206.

Students can also refer themselves and others to the CARE Network ([www.rochester.edu/care](http://www.rochester.edu/care)), an office dedicated to helping students understand what type of support they need and connecting them with the appropriate campus resource.

In addition, the University Counseling Center (UCC) provides individualized and group treatment to students with mental health and well-being concerns. Their services are free for full-time students who pay the mandatory health fee. To schedule an appointment, call (585) 275-3113 or visit the center on the second floor of the University Health Service building located at 738 Library Road on the River Campus.

**Emergency Contacts**

Call the Department of Public Safety at (585) 275-3333 or by picking up a direct dial Blue Light Emergency Phone on campus. For mental health emergencies, call Public Safety or the UCC 24/7 on-call professional at (585) 275-3113.
DEGREE REQUIREMENTS – PhD Candidates

BRIEF OVERVIEW OF PhD DEGREE REQUIREMENTS

The Department of Earth and Environmental Sciences offers the degree of Doctor of Philosophy (Ph.D.) in Geosciences. For the Ph.D. degree, university regulations require **90 hours** of credit for students coming in with a Bachelor’s degree. We expect that ≈ **36 hours** of these 90 hours are taken up with formal course work, with the remainder coming from Ph.D. research credits (EESC 595: PhD Research). For students entering with an approved Master’s degree and transferring credit from this degree, the pertinent figures are **60 hours** of total credit and approximately **24 hours** of formal course credit. Because the course work provides a foundation for your research, we expect most of the course work to be finished in the first 2 years.

The **Qualifying Examination** is a key milestone in the PhD program and in our department has two parts (see below for details on the exams). First comes a **Written Examination** that is typically taken at the end of the second year (or earlier). On passing this examination you will receive the degree of “Master of Science” if you don’t already hold one from this department. The second part of the qualifying examination (the **Oral Examination**) should typically occur within 6 months of the written examination. On passing the oral qualifying examination, you will be promoted by the Associate Dean of Graduate Studies to the status of “Ph.D. candidate”.

During your time as a Ph.D. candidate, you will be guided by a new advising committee, which by now will also include a faculty member from another department or an expert in your field from outside the University. Once your research is completed and the results reported in your dissertation (to the satisfaction of the faculty) the **Final Ph.D. Examination (Ph.D. defense)** is the only step left between you and the Ph.D. degree. This examination consists of an oral presentation of your research – open to the public – which is followed by a closed oral examination administered by a faculty committee appointed by the Dean of Graduate Studies, usually your advising committee plus an outside chairperson.

Students are generally expected (although not absolutely required) to have between one and three papers submitted or in press in the leading journals in their field by the time of their defense.

FORMAL COURSE REQUIREMENTS

I. **PREREQUISITES:**

You are expected to have taken the courses listed below as an undergraduate.

- 2 semesters of Calculus
- Differential Equations or Statistics or Linear Algebra
- 2 semesters of Physics
- 2 semesters of Chemistry

Students entering the PhD program with a focus on Geology are expected to have completed a program equivalent to a BS in Geology from the University of Rochester. This would include courses in:
- Physical Geology
- Historical Geology
Mineralogy (including Optical Mineralogy)  
Sedimentology and Stratigraphy  
Structural Geology  
3 elective (upper level) courses e.g. Geochemistry, Geophysics, Petrology, Paleontology or Paleomagnetism

**Credit Policy with respect to Undergraduate Courses**

If you have not had these courses, the sooner you take them the better. Note, however, that graduate students cannot take 100-level courses for credit. However, one 100-level or 200-level course can be taken as a **bridging course** with the permission of the Associate Dean; bridging courses are covered by your tuition waiver, but do not count toward your total required 90 hours of graduate credits. Any additional 200-level course that is taken as part of a graduate curriculum must be certified by the instructor to have some content at the graduate level; such 200-level courses, when permitted, carry the usual 4 credit hours. There is also a limit of two 200-level courses that can be taken within the normal course of a graduate student curriculum. Talk to your primary advisor and the department graduate advisor to work out a program.

**II. GRADUATE COURSES FOR PH.D. (AND M.S.) STUDENTS**

The course plan should be put together by the student in close cooperation with his/her primary advisor and possibly the advising committee. The graduate coursework serves to provide a useful foundation for your research, prepare you for the qualifying exams and to broaden your knowledge and perspective within the Earth Sciences.

You are expected to earn A’s and B’s in all your course work. Grades below B- are **not** considered satisfactory. Incompletes (I) are not looked upon favorably either. Two grades of “C+” or lower can result in dismissal from the program. Failure to pass (i.e. B- or higher) at least 9 credits/semester can lead to probation/dismissal.
II a. Courses that can be used for Written Qualifying Exams

The list below includes essential courses taught by each faculty member (and their specialty). By choosing appropriate courses from the list below the students can prepare for qualifying exams in either (1) four courses within the EES department (with no more than two exams from any particular area of specialization / faculty member) or (2) three courses within the EES department (with no more than two exams from any particular area of specialization / faculty member) and one course taken outside the department (for example, in Physics, Chemistry, Biology, Engineering or Computer Science).

Prof. John Kessler (Chemical Oceanography)
- Chemical Oceanography (EESC 412)
- Stable Isotope Geochemistry (EESC 461)

Prof. Gautam Mitra (Structural Geology and Tectonics)
- Thrust Faults and Mountain Belts (EESC 488)
- Microtectonics (EESC 481)
- Stress and Strain in Rocks (EESC 484)

Prof. Lee Murray (Climate Modeling)
- Atmospheric Geochemistry (EESC 418 – also taught by Petrenko)
- Fundamentals of Atmospheric Modeling (EESC 434)
- Physics of Climate (EESC 436)

Prof. Miki Nakajima (Earth and Planetary Geodynamics)
- Geodynamics (EESC 453)
- Planetary Interiors (EESC 454)

Prof. Tolulope Olugboji (Computational Seismology)
- Earth Science Data Analyses (EESC 414)
- Seismology and Earth Structure (EESC 415)

Prof. Vasilii Petrenko (Paleoclimatology)
- Paleoclimate (EESC 465)
- Ice Core Records of Climate and Environmental Change (EESC 466)

Prof. John Tarduno / Dr. Rory Cottrell (Geophysics and Planetary Science)
- Paleomagnetism and Global Plate Tectonics (EESC 456)
- Planetary Science (EESC 455)

Prof. Dustin Trail (Earth Materials, Experimental Petrology)
- Earth Materials (EESC 404)
- Introduction to Thermodynamics and Kinetics (EESC 463)

Prof. Thomas Weber (Ocean Modeling)
- Marine Ecosystem and Carbon Cycle Modeling (EESC 433)
- Physical Oceanography (EESC 435)

II b. Courses in area of research focus

In addition, students must complete one 2-4 course sequence in their area of specialty (note that some courses are not listed above; course selection should be done in consultation with the research advisor);
some of these courses can overlap with courses listed above taken to prepare for the qualifying exams. Additional courses (beyond the 2 – 4 course sequence) may be required to prepare the student for research and to fulfill total course credit requirements.

II c. Other Courses / Requirements

We also expect that one of your graduate courses within the department will be in a field that is unrelated to your field of research interest. This is meant to broaden your horizons and introduce you to a field of research that is completely different from your own. We also ask you to participate actively and regularly in the department research seminars.

If a student chooses a qualifying exam course or a specialization outside the department, these courses must be agreed upon in advance with an external advisor in the outside department and the student’s EES research advisor.

To satisfy teaching requirements, students should register for EES 490 (Supervised College Teaching: 1 credit) for at least 1 semester and no more than 2 semesters.

Students should register for EES 499 (Research Frontiers in Geoscience, which is the departmental seminar) for 1 credit every semester when they are not registered for EES 490. You will be expected to present your research in this seminar occasionally during your time at the department.

DEPARTMENT POLICY ON Ph.D. QUALIFYING EXAMINATIONS

I. WRITTEN QUALIFYING EXAMINATIONS

Written qualifying exams are typically offered either in January the week before the start of the Spring Semester, or in May / June, shortly after the end of the Spring semester.

Students who entered the programs with a Bachelor’s degree should take the written qualifying exams by the end of the fourth semester in residence. Students who entered the PhD program with a Master’s degree in a directly relevant field should take the written qualifying exams by the end of the third semester in residence. Under special circumstances the written examination may be delayed, but all requirements for this examination must be completed before the beginning of the seventh semester (per University regulations).

A student who enters the M.S. program and then decides to pursue a Ph.D. degree here (or would like the option to do so) can follow one of two paths:

1) Take the Ph.D. written qualifying exam by the end of the third semester. If they pass, they can follow the regular route to the Ph.D. If they fail, they will continue in the M.S. program and leave upon its completion. The Masters Plan A program is recommended.

2) “Reapply” to the graduate program (to pursue a Ph.D. degree) by the normal January 15 deadline. This does not have to be a formal application with application fee etc. It should be an application to reactivate the file, and should include updated transcripts and letters of recommendation. The student will then be evaluated together with applications from incoming students. If the student is accepted into the Ph.D. program we will notify them by April 1. They should then finish a M.S. thesis or M.S. essay before the beginning of the fifth semester and take the Ph.D. written qualifying exams by the end of the fifth semester in residence. Failure to do so will indicate that the student is not interested in pursuing a Ph.D.
degree here, and the student will be asked to leave with a Master’s degree. There is, of course, the option of taking the written qualifying exam at the end of the fourth semester in residence.

The student must choose four courses for the written Qualifying Examinations, and discuss these choices with the graduate advisor and other faculty who would write the exams at least four weeks before the examination. Exams on no more than two courses should be from the same faculty member. The other two exams should be from two different examiners. One of the four exams may be written by a professor outside the department but within the university. Note that if you already have a strong knowledge base in the area of a particular course from your prior (BS or MS) studies, you may be allowed to take a written qualifying exam in this course without actually taking the course in our department. If you are to take the written qualifying exam, it is critical that you consult with faculty in your four chosen courses early in the semester to find out what material you are expected to know.

The written examination is completed over two days and will test if you have a solid knowledge and understanding of the principles in four fields (represented by the four courses). Please note that the exams are meant to test both the breadth and the depth of knowledge in a given area, and may go beyond the material covered in the course. If the exam indicates weaknesses in one or more fields, the advising committee will decide whether the candidate has passed but has to enroll in a particular course, has failed but is allowed to repeat the exam after a given time and a particular program, or should leave the university.

IV. ORAL QUALIFYING EXAMINATIONS

The oral qualifying exam should be taken within a semester of the Written Qualifying Exam and in no case later than the beginning of the second semester after the written exam. (Beyond that the student may be asked to retake the Written Qualifying Exam). The exact date for this exam is more flexible, and should be decided on by the student in consultation with his/her advisor and examining committee. Please inform Marissa Sette at least two weeks prior to your desired examination date so the appropriate paperwork can be filed with the Dean’s Office.

This exam involves a research proposal, a public presentation and a defense of your proposal in a closed-door session with your committee. The research proposal should describe the main problem you want to study, the reason why you think it worthwhile to do, the present understanding of the problem based on a literature review, how you plan to address the problem, your progress so far, as well as demonstrate the feasibility of your research plan. It is suggested that the research proposal should follow the basic guidelines of an NSF proposal (15-page limit, single-spaced, including figures but not references). The research proposal should be prepared in close cooperation with your primary research advisor and be sent to the member of your committee at least a week prior to your scheduled examination. The Oral Examination will be administered by three or more members of the faculty, usually your advising committee (which may include one faculty member from another department). This exam starts with a talk about your proposed research that is open to the public. This is followed by a closed-door exam which will start out as a defense of your proposal, but will also test your understanding of your proposed field of research. If you do not pass the exam, at the discretion of the examining committee, this exam can be repeated once after a period of at least five months or the student will be dismissed from the program.

FINAL ORAL THESIS DEFENSE PREPARATION

When you are ready to begin writing your final Ph.D. thesis, please ask Marissa Sette for a copy of the “Preparation of Doctoral Theses” manual also known as the “Blue Book”. This is your guide to
formatting and arranging your thesis. It is important that you follow these guidelines in the preparation of your thesis.

V. FINAL ORAL THESIS COMMITTEE

The committee for the final oral examination for the Ph.D. (i.e. PhD. thesis defense) “shall consist of at least 2 current full-time faculty members of the rank of assistant professor or higher (one of those being the student’s advisor) who hold their primary appointment in the candidate’s major department, and one full-time faculty member, assistant professor rank or higher with a primary appointment in a department other than the candidate’s major department (usually referred to as the outside reader).” The “outside reader” may be replaced by a person outside the University that is a recognized expert in the field; this requires prior approval by the Associate Graduate Dean of the College and the University Graduate Dean. (Paraphrased from Regulations Concerning Graduate Studies [Red Book]). The thesis must be approved by the entire committee before it can be registered for a thesis defense. The final oral examination committee is presided over by the University dean of graduate studies or an appointed representative, who serves as Chair; nominations for the chair of the committee must be submitted by the department to the Associate Dean for Graduate Studies within the College (ASE).

Should an additional person with the rank of assistant professor or higher, from another university or a recognized expert in the field be required on the committee, that person, after permission has been granted by the Associate Dean’s Office, will constitute a member of the committee above and beyond those outlined in the previous paragraph. However, such a “second outside member” does not have a vote on the committee proceedings.

Permission to add any committee member(s) from outside the university requires submission of a “Petition for a Non-Standard Member of the PhD Examination Committee” form along with a complete copy of the curriculum vitae from the committee-member-to-be. This form must be submitted and approved by the Dean’s office before the registration paperwork can be submitted. Please speak with Marissa Sette regarding the completion of this form.

DEFENSE REGISTRATION

Please inform Marissa Sette as soon as possible, at least 6 weeks in advance, once a defense date has been determined. She will then be able to assist you with exact dates and start your defense record (Sharepoint). Your committee will need to receive a copy of your thesis 6 weeks in advance of your defense date.

Your advisor and all of your committee members must verify that they have seen and read your PhD thesis in its final form (i.e. they should not find any errors in it). This is all done through your Sharepoint record.

Once verified by your committee, your thesis will then go through the GEPA office and the University’s Dean’s office for approval. Again, this is all done through Sharepoint.

POST DEFENSE

The University of Rochester requires all graduate students submitting a Ph.D. thesis to access the online University of Rochester ProQuest web site to complete and submit a publishing form. There is no fee for this submission. After the Ph.D. defense is passed, each student will upload a pdf of their final corrected dissertation to the ProQuest site. Students can access this site before their defense. However, you will not be able to complete the form until after your successful defense. Further upload instructions will be sent after the successful completion of your defense.
After your defense and all other formalities have been completed (and any final corrections have been incorporated into your thesis) all students need to provide a final copy of their essay/thesis either pre-bound or as a PDF to Marissa Sette,

VI. TIME LINE FOR PH.D. STUDENTS

End of second semester in residence – candidates should have selected an advisor

End of third semester in residence – (if you already have a Master’s degree from elsewhere) Written Qualifying Examination. The oral examination should be completed by the end of your fourth semester.

Fourth semester – By the end of the semester you should also have taken most of your courses. Students that entered the program with B.A./B.S. degrees should be ready to take Written Qualifying Examination by the end of this semester.

End of fifth semester in residence – (if you entered the program with B.A./B.S. or equivalent) Finish the Oral Qualifying Examination by the end of the semester

End of fourth year -- you should aim to have at least one paper submitted for publication. The typical length of time for completion of a Ph.D. is around 5 years.

After fifth year – the tuition waiver you receive covers 90 credit hours. Students continuing enrollment after 90 credit hours must register for EES 999 (Continuation of doctoral enrollment) and will be responsible for the $1,070/semester continuation fee. These fees are not covered by a tuition waiver.

End of Seventh Year The PhD program is to not exceed 7 years (per University regulations). However, if there are extenuating circumstances, a Time to Degree Extension petition can be filed with the Dean’s Office. This form would need the approval of your advisor, Departmental Chair and the GEPA Dean. This form should be filed no later than 7/31 at the end of the summer of your seventh year.
MASTER’S CANDIDATES – DEGREE REQUIREMENTS

The Department offers two different and distinct programs by which a student can work toward a Master of Science degree in Geological Sciences. The two plans are known as Plan A and Plan B. Plan A is a research and thesis track; Plan B is essentially a course work plus essay track. The decision to follow Plan A or Plan B should be made early in your program and is a matter for you and your advisor to discuss.

Common requirements for both plans include:

Complete 30 graduate credit hours of correlated graduate work (including formal coursework).

Complete a minimum of 18 credit hours in formal class work (or 4-5 4-credit courses) in the subject areas listed below.

I. COURSE REQUIREMENTS FOR M.S. STUDENTS

Of the 18 credit hours of course work required by the University, the Department requires students to complete three courses (from at least three different specializations), plus at least two courses from your advisor’s sequence (TOTAL OF 5 COURSES). Note that students who are doing a 5th-year Master’s following an undergraduate degree in the department can use graduate-level (400-level) courses that they took while they were undergraduates to help meet the course requirement.

For a list of courses see the section on course requirements for Ph.D. students.

III. RESEARCH, READING AND DISSERTATION COURSES FOR M.S. STUDENTS

EES 491: Reading (Research and Internship) courses credit hours may NOT exceed a total (including 495) of 6 credit hours of the 30.

EES 493: Master’s Essay. Can enroll in this course during your final semester (the last semester before you graduate) if you are doing a Plan B Master’s degree.

EES 495: Master’s Research in Geology. Credit hours are assigned by the instructor, specific to each student’s needs. Not to exceed 6 credits (including 491) if pursuing Plan B. Note: you do not need to be enrolled in Master’s research in order to actually be doing research.

EES 895: Continuation of Master’s Enrollment: For Plan B Master’s degree or Plan A Master’s degree who are not working full-time on their dissertation. Once you are finished with the minimum requirements for the degree (i.e. 30-32 credit hours), if you plan to complete your degree off campus you must register for Master’s Continuation of Enrollment (EES 895) and you will be responsible for the continuation fee at that point onward ($1070 per semester). This registration is “X” time status (less than part time).

EES 899: Master’s Dissertation. Enroll in this course if you have exceeded 30 credits but still have not completed your thesis dissertation. This is for those completing a Plan A Master’s degree and are working full-time on their dissertation. Satisfactory completion of this course is based on the final decision of your advising committee (at least 3 faculty members).
IV. OTHER REQUIREMENTS

It is expected that you have finished your essay/thesis by the end of your fourth semester in residence!

MINIMUM RESIDENCY REQUIREMENT:

A minimum of one year (two consecutive semesters, excluding summers) in residence and enrollment as a full-time student is required

REQUIREMENTS FOR MASTER’S PLAN A (THESIS)

INCLUDE:

1. Complete a minimum of 18 credit hours from formal courses numbered at the 400 level or higher (see previous page). Credits from EES 499 (the department’s research seminar) cannot be used to satisfy this requirement, although students are expected to register for EES 499 (1 credit) for each semester that they are in residence.

2. Completion of EES 495 (Research) and EES 491 (Reading). The dissertation and associated research must provide a combined total of no less than 6 credit hours and normally no more than 12 credit hours. Under special circumstances, with prior approval of the Associate Dean for Graduate Studies, the combined credit for dissertation and research may exceed 12 credit hours.

3. The Master’s dissertation must be submitted according to a predetermined format. A booklet describing details of the preparation is available from the Associate Dean. Copies are available in the department office.

4. You will need to inform Marissa Sette at least two weeks prior to your desired defense date.

5. Your master’s thesis must be received in the AS&E Graduate Studies Office at least 5 working days prior to the defense date. To register your thesis for defense, you should turn in one bound hard-copy of the thesis to the AS&E Graduate Studies Office in Lattimore 206. You should also be sending your committee your thesis at this time (or sooner). Please contact Marissa if you have any questions regarding this process.

6. You must pass a final oral examination (defense). The examining committee will be appointed by the Associate Dean, and it will consist of two faculty members from your major department (Earth and Environmental Sciences) and one faculty member from another department within the University. The department recommends an oral presentation of your research -- open to the public -- before the closed oral examination.

7. Once the thesis is accepted by your committee, two printed copies (using the proper format, see No. 3 above), containing all of the required corrections and revisions, must be filed at the office of the Associate Dean for the Graduate School; one copy should also go to the Department and another to your advisor. Additional copies for your own personal use should also be made.
8. If you take more than three (3) years to complete your dissertation, you may be required to take a written comprehensive examination. There are certain provisions available for students who do not pass their comprehensive (final) examination. These are described in the Graduate Bulletin.

**REQUIREMENTS FOR MASTER’S PLAN B (ESSAY)**

1. Complete a minimum of 18 graduate credit hours from formal courses numbered at the 400 level or higher (see previous page). Credits from EES 493, EES 495 and EES 499 cannot be used to satisfy this requirement, although students are expected to register for EES 499 (1 credit) for each semester that they are in residence.

2. Total credit hours for EES 493 may not exceed 4. Satisfactory completion of this course is based on the final decision of your advising committee (at least 2 faculty members).

3. Students must make sure the sum of their “research/reading” credits (495/491 courses) total fewer than or equal to six.

4. Students are required to pass a comprehensive examination in their field of specialization. This is an oral examination conducted by 2 members of the faculty from the Department of Earth and Environmental Sciences.
EVALUATIONS, PROBATION AND DISMISSAL

Annual Evaluations
At the conclusion of each Spring semester, the Department will conduct an evaluation of each doctoral student’s progress. The evaluation is intended to provide students with feedback about their performance, and to assist the Department in identifying students in need of additional guidance.

Each assessment begins with the student’s completion of a self-evaluation form, which is emailed to students after the end of the Spring semester. This self-evaluation addresses coursework, research, teaching and professionalization activities undertaken during the past year. The self-evaluation is then routed to your primary advisor for review. Ideally, the student and advisor (or thesis committee) should then meet to discuss the self-evaluation, goals for the next year, and any areas for improvement. The advisor will then provide written comments on the online form, outlining (i) their assessment of the student’s progress towards degree completion, and (ii) recommendations for the coming year. Student’s will then have an opportunity to respond to the advisor’s comments, before the entire evaluation is reviewed by the Director of Graduate Studies.

The report must be completed and submitted to the AS&E Office of Graduate Education and Postdoctoral Affairs by August 1st each year.

Academic Probation
All graduate students are expected to maintain high standards of academic performance in their coursework and their research. Both the School of Arts, Sciences and Engineering and the Department have policies outlining when a student is to be placed on academic probation.

AS&E Academic Probation
A student who receives the grade of lower than B- in one or more courses will be considered to have an unsatisfactory record and will be automatically placed on academic probation.

When a student is placed on probation by the AS&E GEPA office, both our program and the student will be notified in writing (email communication is considered to be “in writing”) and the student will be given one semester to resume satisfactory academic standing. During the probationary period, students will remain eligible to receive federal and institutional assistance (except when they have exceeded their degree deadline).

At the end of the probationary semester, progress will be reviewed by the AS&E GEPA office. A student will be removed from AS&E academic probation if the student completes 12 semester hours of graduate credit with no grade lower than B-.

If a student does not re-establish satisfactory academic standing (i.e. fails to complete 12 credits or receives a grade lower than a B-), the student will become ineligible to receive financial aid and will be excluded (dismissed) by the AS&E Dean of Graduate Education.

Departmental Academic Probation
Additionally, a student may be placed on departmental probation instead of, or in addition to, college academic probation. Departmental probation may be recommended if a student is not making satisfactory progress towards completing the PhD program’s requirements. A student may be placed on departmental probation when:

- Failure to earn at least a B- in all formal coursework
- Failure to make satisfactory progress in research
Failure to pass all written exams on the timeline prescribed by the department
A committee of program faculty, chaired by the Director of Graduate Studies, make a decision to place the student on probation.

Additional criteria for placement on departmental probation include, but are not limited to, a persistent and substantial pattern of:
- inconsistent attendance of classes
- insufficient participation in classes designated by instructors as requiring such participation
- discourteous or inconsiderate behavior toward faculty, staff, peers, research participants, or clients
- behavior that interferes with effective functioning as a student, research scientist, or professional in training, including: unreceptiveness to supervisory feedback, difficulties in working collaboratively with supervisors, supervisees, or colleagues, and chronic tardiness in meeting academic and professional responsibilities
- performance in professional activities that is below expectation for the student’s level of training.
- Unethical conduct of any kind, including academic dishonesty or misconduct involving scientific or professional behavior.

In placing a student on departmental probation the faculty will provide the student and the AS&E GEPA office with a statement of the reasons for probation and the steps to be taken to have the probation status removed, including the dates by which such steps must be completed.

The consequences of being on departmental probation will be determined by a committee of program faculty, chaired by the Director of Graduate Studies, based on probation circumstances, and may include (but are not limited to) being ineligible to receive departmental travel and research funds, not being allowed to proceed with qualifying exams or not being allowed to proceed to PhD defense.

A student will be removed from academic probation once a committee of program faculty, chaired by the Director of Graduate Studies, determines that the deficiency that triggered the probation has been adequately addressed.

**Exclusion (Dismissal from graduate program)**
A student who fails to resume satisfactory academic standing during an AS&E probationary period after being notified of placement on probation will be excluded from the program. In such cases, there is no process for appeal, and the exclusion will take effect immediately.

Additionally, a student who has failed to make satisfactory academic progress according to the Departmental criteria or failed to remediate during the Departmental probation period will be excluded by the program. In these cases, a committee of program faculty, chaired by the Director of Graduate Studies, will make the decision to exclude the student.

Funding will cease on the effective date of the exclusion unless other arrangements are made. When a student is excluded by the program, the student has an opportunity to appeal the exclusion decision to the AS&E GEPA office. When a student appeals the program’s exclusion decision, the exclusion becomes effective after the appeal process has concluded if the appeal is denied.

**Notification of Exclusion**
When the AS&E GEPA office determines that a student is to be excluded both our program and the student will be informed in writing (email communication is considered to be “in writing”) within 10
business days of the determination. Similarly, when a decision to exclude a student is made by the Department, both the student and the AS&E GEPA office will be informed in writing within 10 business days of the decision.

The exclusion (dismissal) notification will include the effective date of the exclusion and a clear statement of the reason(s) for exclusion.

**Appeal Process for Exclusions by the Department**

Students wishing to appeal a program’s exclusion decision may appeal the final program exclusion decision to the AS&E GEPA office. To appeal a program decision, students should submit a request in writing to the attention of the Dean of Graduate Education within 10 calendar days of the date of the program’s final written determination of exclusion and include any supporting materials at that time.

If no appeal is filed within the 10-day appeal period, the program’s decision becomes final and is not subject to appeal.

Grounds for appeal of a program’s exclusion decision are as follows:

- Procedural errors in the exclusion process
- New information discovered after the exclusion that was not available at the time of the exclusion and could impact the outcome
- Program’s decision to exclude was manifestly contrary to the weight of the information available at the time of the decision (i.e., exclusion is obviously unreasonable and unsupported by the great weight of information)

Appeals of program exclusions are reviewed by the AS&E dean of graduate education and postdoctoral affairs (or the dean’s designee) who may request additional information from, or a meeting with, the student and/or program before making a final decision.

If the dean (or the dean’s designee) does not find that any of the aforementioned grounds for appeal are present, the dean will uphold the outcome of the program. If the dean (or the dean’s designee) finds that grounds for appeal are valid, they may amend the decision of the program.
DEPARTMENT LOGISTICS, EQUIPMENT ETC.

ROOM ASSIGNMENTS

In general, we try to provide all research and teaching assistants with office space in which they can do their work, meet with students, etc. To get your room assignment and keys, contact Marissa Sette.

TELEPHONE AND FAX

Student offices generally do not have phone service. There are telephones located in each research laboratory. The phones in the laboratories are for use by persons associated with that particular lab. Fax usage is only for business purposes; use of the fax machine to conduct personal business is prohibited. The department fax # is 585-244-5689.

COMPUTERS, E-MAIL ACCOUNTS, ETC.

There are computers (with some graphics and word processing software) and a laser-printer located in the department computer room (227A Hutchison Hall). You may use these for general typing purposes, e-mail, etc. However, do not save ANY files to the hard drives, as the computers will be cleaned regularly and non-essential files will be deleted. Bring your own flash drive / external storage drive to save your files when you work on these computers. The computers are all virus free – please try to keep them that way. You may use the computers in 227A at any time, as long as there are no classes being held in the room. You can also use any library computer. The university provides Outlook 365 e-mail accounts for graduate students. You will be notified when your account has been set up. Please make sure that you provide Marissa Sette (Hutchison Hall 227; msette@ur.rochester.edu) with your e-mail address, local address and phone number.

MAILBOXES

Each graduate student is assigned a mailbox in the department office (Hutchison Hall 227). Outgoing mail (USPS) can be put into the blue mailbag near the mailboxes. Mail is delivered and picked up once a day (at approximately 11:00 a.m.)

COPYING

The department copier is meant for copying material related to teaching or research. It is not to be used for personal copying. For copying related to teaching classes, teaching assistants should obtain a copy code from the instructor who is teaching the course. These codes are to be used only for department related copying. For copying related to research obtain a copy code from your research supervisor.

For personal copying, use the copiers at the River Campus Libraries. There are black and white copiers in most river campus libraries and a color copier in Rush Rhees. Black and white copies cost 10 cents/side and color copies are 25 cents/side and can be paid for with a UR ID with Flex Account or you can purchase a visitor card at Value Transfer Station (VTS) machines located in Rush Rhees, Carlson and the ITS center. There is also coin-operated photocopying available in Rush-Rhees library. Printers are also located in all river campus libraries. Costs are the same as with photocopying and can be paid for by the same methods listed above.

LIBRARIES
Geoscience materials (books, journals, maps) are housed in Carlson Library, located in the Computer Sciences Building next door to Hutchison. Their phone number is 275-4488. Hours for the River Campus libraries can be found at [http://www.library.rochester.edu/](http://www.library.rochester.edu/) The Carlson Library also houses chemistry, biology, mathematics, statistics and engineering collections. Anyone there can help you with using the online catalog (Voyager), interlibrary loans, finding journals, etc. We strongly recommend that incoming students sign up for the library’s informational classes. Our librarian is Sarah Siddiqui. Her phone number is 275-7659 and email address is ssiddiqui@library.rochester.edu. During the course of your studies/research you may need to visit one or more of several other libraries on campus, such as the main Rush Rhees Library or the Physics-Astronomy Library in Bausch and Lomb Hall.

**ROCK STORAGE**

The department has rock cases available for graduate students whose research involves collecting significant volumes of rock. In general, cases will be provided to students when they need them. Students in need of rock cases should see Gerry Kloc (Hutchison 508). The case(s) will be yours until you finish your graduate program at the U of R. After you have finished your degree, you are expected to remove any materials which you feel are valuable – either to you or to posterity. If you want your rocks saved, but cannot take them with you when you leave the University, you will have to make special arrangements to have them saved. In any event, all unlabeled specimens go!

**ROCK CUTTING ROOM**

The department rock cutting room (Hutchison 109) is equipped with rock-cutting saws, a drill press, a band-saw, a rock-splitter and a vibro-lap. Check with Gerry Kloc (Hutchison 508) before using this room to make sure you are familiar with this equipment. Students will be held responsible for broken saws, bent blades, etc. -- so please make sure that you know what you are doing. Keys can be signed out from the department office on an as needed basis.

**MICROSCOPES**

Research microscopes are available through your advisor. In addition, teaching microscopes are housed in the Optical Mineralogy Lab (Hutchison 205) – these microscopes should not be removed from this room. Talk to Rory Cottrell if you wish to use one of these microscopes.
DEPARTMENTAL GET-TOGETHERS

DEPARTMENT COLLOQUIA

The department has a weekly Seminar Series (Frontiers in Earth and Environmental Sciences –EES 499, 1 cr. hr. each semester) where speakers are invited from other universities to present lectures. Please make sure that you are registered for EES 499 every semester that you are here (except when you are registered EES 490). ALL students must attend these lectures. A reception normally follows the lecture, and gives students a chance to meet scientists from other universities and research labs and learn of their research interests.

PICNICS AND GET-TOGETHERS

The Department, with the help of the Undergraduate Student Geology Organization (USGO), holds picnics in the Fall and Spring – all are invited, including families and significant others.

There are also sometimes happy hours on Fridays in the lounge for faculty/staff/graduate students. These get-togethers are a good place to get to know everyone in the department – so don’t stay away!

DISCLAIMER

This handbook is intended to cover general information and regulations which are of particular interest to the graduate students in the Department of Earth and Environmental Sciences. However, we have neither the space nor the inclination to include all regulations which may be pertinent to you during your tenure at the University. If a question arises which is not dealt with in this handbook, then consult the current issue of the Graduate Bulletin that is on-line at http://www.rochester.edu/GradBulletin/. It is the official “law” of the university, and as such, except for department requirements, its contents take precedence over any other source of information within this institution.