UConn Department of Earth Sciences
Graduate Program Handbook

The Graduate Catalog describes UConn's policies and requirements for graduate study. Below, some of the major policies from the catalog are summarized, and additional policies and guidelines for the M.S. and Ph.D. programs in the Department of Earth Sciences are outlined. Students are responsible for ensuring that all Graduate School requirements are met; should discrepancies arise between this document and the graduate catalog then the latter takes precedence. Please notify the Earth Sciences Graduate Committee of these discrepancies so that this document can be updated. Questions about this document should be directed to the Earth Sciences Graduate Committee Chairperson (currently Will Ouimet; william.ouimet@uconn.edu).

The current Graduate Catalog is available at https://gradcatalog.uconn.edu/

Summary of Degrees

Geological Sciences (M.S., Ph.D.)

The Department of Earth Sciences offers two graduate degrees in the field of Geological Sciences: Master of Science (M.S.) and Doctor of Philosophy (Ph.D.). The M.S. in Geological Sciences may be either a coursework or research-based degree. The M.S. prepares students to pursue a Ph.D. or for careers in government, industry, teaching, or the non-profit sector. The Ph.D. prepares students for research and teaching careers in academia, as well as for research and leadership positions in government, industry, and the non-profit sector. Students may choose Geology or Geophysics as an area of concentration.

Requirements: The Ph.D. requirements in Geological Sciences conform to the Graduate School requirements as outlined in the Academic Regulations section of the catalog. The M.S. requirements in Geological Sciences vary according to the type of M.S. (coursework or research-based). Students on the research-based (thesis) track for M.S. in Geological Sciences (Plan A) must complete at least 21 credits of graduate coursework, at least 9 credits of graduate research, a research project culminating in a thesis, departmental presentation, and a final examination administered by the advisory committee. Students on the coursework track for M.S. in Geological Sciences (Plan B) must complete 30 credits of graduate coursework and pass a final examination administered by the advisory committee. All M.S. and Ph.D. students are required to take ERTH 5000 (Geoscience Core Course); additional course requirements are determined by the student's advisory committee consistent with the minimum requirements specified by the Graduate School. There are no specific requirements for the areas of concentration beyond advisor approval.

Time to completion: Geological Sciences M.S. programs are typically completed in 2 years, by the end of the fourth semester or in the following summer. Students in the Plan B option have occasionally finished after 3 semesters. Ph.D. programs are typically completed in 4 or 5 years, depending upon preparation. In terms of funding, full-time Ph.D. and Plan A (Thesis) Masters students are only guaranteed (assuming good progress) up to 5 or 2 years of financial support from the department, respectively (note that this duration of support is dictated by UConn). ***See Appendix A (Graduate student support: Information, procedures, and expectations) for more information about GA funding.***

Accelerated B.S. to M.S. in Environmental Earth Sciences (4+1)

The Accelerated B.S. to M.S. in Environmental Earth Sciences was launched in 2023 to support students looking to enter the field of Earth and Environmental Consulting. The program is intended for UConn students entering their junior year of college who are able to enroll in up to 12 credits of coursework while they simultaneously complete their B.S. degree requirements. The remaining credits (for a total of 30) are taken during an additional year as graduate students in the 4+1 M.S. program.

See https://earthsciences.uconn.edu/accelerated_ms_program/ for more information about the 4+1 M.S. program. Questions about the program should be directed to the Michael Hren: michael.hren@uconn.edu

Overview of Graduate Studies and Funding

UConn Earth Sciences views graduate students as fundamentally important contributors to the research, teaching, and service activities of the department. They may be asked to serve on standing committees or other ad hoc committees (i.e., search committees). They have an elected representative who attends faculty meetings and acts as a point person for communication between the graduate students as a group and the faculty or the department head. In addition to courses taught in the department, Earth Sciences also sponsors workshops and seminars that are useful in providing breadth and depth of knowledge in geological and related topics. Graduate student attendance at these offerings is worthwhile and expected.

As much as possible the role of students in the department's activities is facilitated by financial support in the form of teaching assistantships (TAs) and research assistantships (RAs) both within and outside the Earth Sciences Department. All graduate student assistantships are reviewed and awarded annually on a competitive basis subject to availability of funds, and the Department tries to support as many graduate students as it can with these funds. Research assistantships are most commonly funded by individual faculty members with research grants

that provide funding for assistants. Plan B and 4+1 M.S. students pay their own tuition and do not receive GA funding. On occasion Ph.D. and Plan A M.S. students receive fellowships or other financial support to attend graduate school that would substitute or supplement GA funding from the department. ***See Appendix A for more information about GA funding.***

Graduate assistantships typically require 20 hours per week and students are expected to balance the 20 hours per week associated with their GA with their coursework and research. It is university policy that students holding graduate assistantships are expected not to have additional employment unless they have written consent from their advisor. Teaching assistantships are funded by UConn to support its teaching mission and are most often awarded to its graduate students by the Earth Sciences Department. All teaching assistants must have proficiency in English before having any direct instructional responsibility (see International Teaching Assisting Services - https://ita.uconn.edu/testing-english-proficiency-certification-effective-for-teaching-assistants-starting-in-fall-2014-or-after/). Many research assistantships and all teaching assistantships provide tuition remission.

Both teaching assistants and research assistants at UConn are not just emerging scholars, but also employees of UConn. As such, they are represented by the UConn Graduate Employee Union, GEU-UAW (http://uconngradunion.org/). The faculty at UConn are highly supportive of the graduate students and their rights as workers.

Each year every graduate assistant receives an appointment contract, developed by the supervisor of the duties it entails, as part of the agreement between UConn and the GEU-UAW. Graduate assistants are responsible for being available to work during the full length of their contract. Graduate assistantships are 9-month contracts that do not include the summer. Summer funding is typically subject to individual faculty and students in their research group. When possible, the department will advertise and distribute available funds to support summer activities (***See Appendix A Section 2 - Opportunities for extra financial support)***.

The department provides some financial assistance to graduate students to support research activity and travel to conferences. Applications for funds are typically made in a formal request to the department that contains information about the proposed activity. Keep in mind that budgets for these activities shift from year to year and students should not necessarily expect to receive the full amounts requested. Major advisors maintain their own budgets for research and travel and will often support these activities for students in their research group as well. General information about graduate assistantships and fellowships is available in the UConn Graduate Catalog. Further general information about other financial support for graduate students at UConn, as well as specific sources of funding, is available online. Information for travel assistance for doctoral students is also available online.

As stated in the Graduate Catalog, there are specific requirements in order to retain an appointment, or to be reappointed to a graduate assistantship. A student must meet the following criteria:

- a student must have been accorded regular (not provisional) status
- must have been maintaining a cumulative grade point average of at least "B" (3.0) in any coursework taken
- must be eligible to register (i.e., must not have more than three viable grades of Incomplete on their academic record)
- must be enrolled in a graduate degree program scheduled to extend through the entire period of the appointment or reappointment
- must be a full-time student, counting coursework and/or its equivalent together with assistantship duties (see "Credit Loads" under Academic Regulations), throughout the period.

Students, Advisors, and Advisory Committees

Almost all entering graduate students have a major advisor designated before matriculation. In the cases of M.S. and Ph.D. students, major advisors are typically established during the time of application to the program. All degree students must have a major advisor before the end of their first semester in the program.

Timely and productive progress to the graduate degree is highly dependent upon a good working relationship between the student and the major advisor. Major advisors should be viewed as facilitators of degree progress and mentors in scholarly and professional development. Students and advisors should meet frequently to form, develop, and modify specific programmatic goals, research plans, and intellectual growth in general. Advisor and student conduct in their working relationship should always be ethical, respectful, and in full compliance with UConn codes of behavior.

On occasion, a student's professional goals or research interests may evolve to such a degree that it is helpful to change the major advisor, in which case you are required to fill out a form in the graduate school (https://registrar.uconn.edu/wp-content/uploads/sites/1604/2017/08/Change- of-Major-Advisor.pdf). The student should consult with the Earth Sciences Department Head and The Graduate Program Coordinator before changing major advisors.

In addition to major advisors, M.S. and Ph.D. students also have advisory committees that consist of a minimum of three faculty members, including the major advisor. Most M.S. advisory committees in Earth Sciences have three members. Most Ph.D. advisory committees in Earth Sciences have four or five members. Advisory committee members are selected and invited to serve after close consultation between the student and major advisor. When possible,

students are encouraged to take at least one course from each advisory committee member who is a member of the UConn faculty. Students should expect to meet once a year with their advisory committee (more as necessary) to guide their research plans. In order to complete a degree, the advisory committee will need to formally sign off on all major steps (plan of study, proposal, general exam, and thesis defense).

Earth Sciences Ph.D. Program Details and Expected Timeline

> *The Ph.D. is the highest degree offered by the University. The program leading to its attainment is intended to give persons of outstanding ability the opportunity to become creative contributors in a scholarly field. Award of the degree testifies to broad mastery of an established subject area, acquisition of acceptable research skills, and a concentration of knowledge in a specific field. ...Work toward this degree is not merely a matter of accumulating course credits or of satisfying other requirements. The degree will be conferred only after the advisory committee and the Graduate Faculty are convinced that the student has developed independence of judgment and mature scholarship in the chosen field.*
>
> — UConn Graduate Catalog

I. SKILLS

By the time they complete their degree, Earth Sciences Ph.D. students should be able to:

1. Develop novel research questions and place their significance in the context of the geosciences.
2. Design and successfully implement a research plan that addresses their research questions, demonstrating mastery of experimental design; data collection (field and/or laboratory), management, and analysis; quality control; troubleshooting; and organization.
3. Write grant proposals, know the primary funding sources for research in the geosciences, understand how grants are managed, and be able to develop a research budget.
4. Present their research to peers via talks, posters, and scientific publications.
5. Understand the publication process, including journal selection, paper submission, and how to conduct peer review.
6. Communicate their research beyond their peers to a broader public.
7. Articulate the broader impacts of their research program.
8. Teach undergraduate students within the Earth Sciences.

II. KNOWLEDGE

By the time they complete their degree, Earth Sciences Ph.D. students should:

1. Know the fundamentals of the geosciences, with expertise in their own sub-discipline.
2. Know the history and culture of research within their sub-discipline, as determined by the student's committee.
3. Have depth and breadth of knowledge appropriate to their sub-discipline, as determined by the student's committee.
4. Understand the legal and ethical expectations placed on scientists.

III. COURSEWORK

The following requirements are set by the Graduate School. Your advisory committee may provide more detailed requirements.

- At least 30-credits of content coursework beyond the baccalaureate (or its equivalent) or at least 15-credits of content coursework beyond the master's degree in the same or a closely-related field of study
- Up to six credits can consist of upper-level undergraduate courses (3000- or 4000-level)
- 15 credits of GRAD 6950 (Doctoral Dissertation Research) or GRAD 6960 (Full-Time Doctoral Dissertation Research)

IV. GENERAL QUALIFYING EXAM AND DISSERTATION PROPOSAL

The Department of Earth Sciences combines the general examination and dissertation proposal into a two-step process that should be carried out over a 2-3 week period in the 4th or 5th semester. This process consists of a written dissertation proposal followed by an oral presentation and defense of that proposal. During the oral defense of the proposal, students should expect that general knowledge will be evaluated at the same time as details specific to the proposal. Five faculty members must be included as evaluators. If a student's advisory committee has less than 5 members, additional faculty members must be given the proposal to read and be included in the closed evaluation period following the presentation. The Graduate School has two separate forms for the general examination and dissertation proposal: 1) 'Report on the General Examination for the Doctoral Degree', and 2) 'Dissertation Proposal for Doctoral Degree'. Both forms must be filled out and signed by the advisory committee to constitute successful completion. Refer to the Graduate School for current forms: https://grad.uconn.edu/forms/. Outcomes of the process can vary (pass, pass with conditions, fail). Passing with conditions is common, with the advisory committee stipulating conditions (such as proposal edits, coursework or a follow-up exam) that must be met before paperwork is signed to indicate completion.

V. TIME-LINE AND KEY MILESTONES

Students will complete the following benchmarks by the stated times. Exceptions will be allowed as detailed below; in addition, any leave of absence approved by the Graduate School stops the clock on all items for the duration of the absence. Students should:

1. Consult your major advisor and decide on an initial list of courses for the first and second semester. Generally, you will take 2-3 courses per semester the first year and the graduate research credits (i.e., 6950) will be emphasized later in your degree after semester 3 or 4. Keep in mind that you will be looking to form an Advisory Committee and it is recommended to take at least one course from each advisory committee member who is a member of the UConn faculty. Other than content-specific courses tailored to your research, it is strongly

encouraged that students take the Earth Sciences Core class (ERTH 5000) during the first semester, or if they enter in the spring semester, the following Fall.

2. Form a provisional advisory committee of at least 3 faculty members, including the major advisor, before the start of the second semester. Each student is required to form an advisory committee that will guide them through their degree. Membership of the committee should be determined in consultation with your major adviser. The major advisor and at least one associate advisor on the committee must be members of the graduate faculty in Earth Sciences as a field of study as specified in the Graduate Catalog Advisory System. The names of eligible committee members in Earth Sciences can be found on the Earth Sciences Department Faculty Page. Most Ph.D. advisory committees in Earth Sciences have four or five members. Although it is not a requirement, Ph.D. students are encouraged to include within their advisory committee a UConn faculty member from outside the department and/or an additional geoscientist or other academic expert from outside of UConn. The role of this committee is solely to guide the student's initial course selection and to help them plan their research. Committee members may be added or removed at any time, and changes are especially encouraged when they accommodate changes in research direction. Provisional committee members do not need to be on the student's final dissertation committee.

Please note, if one of the proposed committee members is not at UConn, the following text from the By-Laws, Rules, And Regulations of the Graduate Faculty Council (GFC) apply:

> *If deemed appropriate by a graduate student's major advisor, the major advisor may request that a suitably qualified external associate advisor be appointed to the student's advisory committee. Such requests should be made in writing to The Graduate School. The request should be accompanied by a curriculum vitae for the individual being recommended for appointment. Such appointments are made on the basis of advanced training and significant experience in the field of study. An appointment as external associate advisor is limited to an individual student's advisory committee and does not imply in any way membership on the Graduate Faculty of the University. Ordinarily, not more than one external associate advisor is appointed to any master's or doctoral student's advisory committee. The major advisor and at least one associate advisor on any doctoral student's advisory committee must be members of the University's Graduate Faculty.*

Students should work closely with their major advisor to ensure this process happens before the proposal and general exam stage, or dissertation defense if they are added later in a student's time.

3. Meet with their committee before the start of the third semester and at least annually thereafter. The student should meet with their provisional committee before the start of their

third semester to initiate discussions about their research directions and plan of study. Thereafter, they should meet annually to update their committee on their progress and to discuss future plans.

4. Finalize committee membership and submit a *Plan of Study for the Doctoral Degree* to the Graduate School before the end of the third semester. The plan of study will identify the student's committee members and any courses that they require the student to take in order to complete their degree. The student should consult the graduate catalog to ensure that the plan is compliant with Graduate School requirements.

After committee membership has been formalized, subsequent changes in membership remain possible and are encouraged when they will help the student meet their research goals. Similarly, changes to courses on the plan of study are encouraged when they will improve the student's ability to conduct their planned research. These changes require that a signed *Request for Changes in Plan of Study* form be submitted to the Graduate School.

****As mentioned above, the Department of Earth Sciences combines the general examination and dissertation proposal into a two-step process consisting of: 1) a written dissertation proposal, and 2) an oral presentation, defense of that proposal and general exam completed together in one 3-4 hour period, typically 2-3 weeks after the written dissertation proposal is submitted.**

5. Submit a written dissertation proposal to your committee two weeks before your combined proposal defense and general exam in the 4th or 5th semester. The dissertation proposal should outline the research that the student plans to conduct, place that work in the context of previous work in their field, and demonstrate how the proposed work will contribute new knowledge in their field. It is recommended that the document include an introductory literature review, a description of methods, a time-line, a summary of proposed chapters, and a discussion of the work's significance. The proposal should be about 15 pages long (excluding references). The plan outlined in a dissertation proposal is usually developed in consultation with the major advisor, with the major advisor or select advisory committee members having provided feedback on earlier drafts before it goes out to all evaluators. Students are encouraged to meet with their advisory committee members during the proposal preparation process to assess expectations for sufficient background knowledge.

If a student's advisory committee has less than 5 members, additional faculty members must be given the proposal to read and be included in the closed evaluation period following the presentation. These additional evaluators do not have to be experts in the field of study; typically these are just other members of the Earth Sciences faculty asked to read, evaluate and ask questions of the student. The student involved and the major advisor should work together to

select these individuals, make sure they are available, and ensure the minimum of 5 evaluators is met (including the advisory committee).

The written proposal is evaluated as part of the combined dissertation proposal and general exam process. Outcomes of the written portion vary (no edits, some edits, major edits). Some edits are commonly requested, and the major advisor and advisory committee typically withhold their signatures on the paperwork till edits are complete. Once approved, the completed proposal and signed *Dissertation Proposal for the Doctoral Degree* form must be submitted to the Graduate School and the Earth Sciences office. Students should consult the graduate catalog in order to ensure that they meet all Graduate School requirements for the proposal submission.
If circumstances are such that the student has not completed their proposal by the 5th semester, the student should request a one semester extension of the normal proposal and general exam timeline. This should be agreed upon by the advisory committee. Additional requests for extensions must be addressed to the Earth Sciences Graduate Committee, which will consult with the student's committee in deciding whether to approve the request. Except in cases of emergency, requests for extensions should be submitted by the beginning of the semester in which the proposal is due. Students should note that unapproved extensions may affect continued funding (e.g., TA support, eligibility for departmental awards).

6. Complete the oral portion of the combined proposal defense and general exam 2-3 weeks after the written dissertation proposal is submitted to evaluators. This process, which will be a maximum of 4 hours in length, consists of the following: a 30-40 min presentation of the research motivation, plan and methods outlined in the written dissertation proposal; a short question and answer period for the general audience; and a longer, closed-door question and examination period administered the Ph.D. advisory committee and additional evaluators. The number of additional evaluators depends on how many advisory committee members there are. There MUST be at least 5 participants/examiners in the general examination. The oral presentation and short question and answer period is open to all faculty and grad students in the department who would like to attend. Major advisors typically advertise it to the whole department by direct email or through the front office once a day, time and location is set.

Outcomes of the oral examination can vary (pass, pass with conditions, fail). Passing with conditions is common, with the advisory committee stipulating conditions (such as coursework, extra written assignments, or a follow-up exam). The purpose of this exam is to assess a student's understanding of the fundamentals of their field and the general information necessary to complete their graduate training and dissertation research, as determined by the members of their examination committee. The exam committee is charged with using the exam to help the student to identify areas of strength and any remaining areas of weakness. Wide-ranging deficiencies may result in failure, but the committee has the option of addressing less serious/more narrowly defined weaknesses by requiring the student to undertake additional study

(e.g., coursework, committee-defined assignments, etc.). Failure will result in a follow-up exam. Following completion of the exam, including additional assignments and follow-up exam if necessary, the student must submit a signed copy of the *Report on the General Examination for the Doctoral Degree* form to the Graduate School and Earth Sciences office.

Because the steps are combined, the same rules apply regarding extension and completion of the general exam form. If circumstances are such that the student has not completed their oral exam by the 5th semester, the student should request a one semester extension of the normal proposal and general exam timeline. This should be agreed upon by the advisory committee. Additional requests for extensions must be addressed to the Earth Sciences Graduate Committee, which will consult with the student's committee in deciding whether to approve the request. Except in cases of emergency, requests for extensions should be submitted by the beginning of the semester in which the proposal is due. Students should note that unapproved extensions may affect continued funding (e.g., TA support, eligibility for departmental awards).

****Upon completion of steps 5 and 6,** students are encouraged to make sure their 'Plan of Study', 'Report on the General Examination for the Doctoral Degree', and 'Dissertation Proposal for Doctoral Degree' are ALL submitted to the graduate school. Once approved, this makes a Ph.D. student ABD and eligible for a GA pay increase to Level 3.

7. Distribute a complete draft of dissertation to the advisory committee at least three weeks prior to the defense exam. This will typically occur by the end of the 5th year. In order to receive helpful feedback from the advisory committee it is important for a student to consult with them throughout the writing period. Once the student has a final draft of the dissertation, they should distribute it to all committee members and anyone else who will participate in the closed-door portion of the defense. If the student plans on submitting a chapter for publication before finishing the entire dissertation, the committee should have an opportunity for review and comment prior to publication.

8. File *Dissertation Tentative Approval Page* and an electronic working copy of the entire dissertation with the Graduate School and announce the oral portion of your defense via the University Events Calendar at least two weeks prior to the date of defense. These are university-wide requirements. Be sure to review the Graduate School website for details and for any other dissertation-related requirements imposed by the university. Note that the Approval Page indicates that your committee has tentatively approved the dissertation, which is why it is essential that they receive a complete draft at least 3 weeks before the defense exam (see above).

9. Defend dissertation (recommended: before the end of the tenth semester/5th year). The defense presentation should be scheduled for a 60-minute period in which the student gives a talk and takes questions from a general audience (~45 mins for the talk and 15 mins for questions).

This presentation will be followed by a closed-door session with at least 5 faculty in attendance (i.e., the student's committee plus additional faculty if the committee has less than 5 members). The defense must take place at least two weeks prior to the end of the semester in which the student plans to graduate. Following the defense, the student must submit the *Report on the Final Examination for the Doctoral Degree* form to the Graduate School and the Department of Earth Sciences office.

Departmental support for Ph.D. students is guaranteed for up to 5 years from the date of matriculation, subject to the continued availability of funds, satisfactory performance as a graduate assistant, and satisfactory progress towards degree completion. Students should, therefore, plan to complete their dissertation defense/examination within this time frame.

Students who have not completed their Ph.D. by the beginning of 11th semester should submit a written statement to the Graduate Committee detailing the work that remains and a timeline for completion. Extensions will be granted on a semester-by-semester basis. Non-GA funding opportunities may be available, such as adjuncting at regional campuses. The decision to provide such funding opportunities lies with department head.

10. Complete dissertation (recommended: before the end of the tenth semester). For guidance on preparation of the dissertation document, consult the graduate school website under the section titled Current Students, Doctoral Degree Program. An electronic copy must be submitted to Digital Commons. The final dissertation must meet all specifications outlined on the Graduate School website. An approval page bearing original signatures of all members of the advisory committee must be submitted to the Graduate School along with a copy of the *Dissertation Submission Checklist*.

11. Apply for graduation online through the Student Administration System (recommended: before the end of the tenth semester).

Earth Sciences M.S. Program Details and Expected Timeline

The following text refers to our Geological Sciences M.S. degree, and NOT the Accelerated B.S. to M.S. in Environmental Earth Sciences (4+1)

I. DEGREE OPTIONS

The University offers two options for the M.S. degree: Thesis and Non-Thesis. The Thesis plan requires that the student complete an original research project that will serve as the basis for a written thesis and oral defense. The Non-Thesis option requires that the student take a greater number of courses, achieve a more general knowledge of the field, and take a final exam.

II. COURSEWORK

The following requirements are set by the Graduate School. Your advisory committee may provide more detailed requirements.

Thesis option:

- At least 21 credits of advanced coursework
- Up to six credits can consist of upper-level undergraduate courses (3000- or 4000-level)
- 9 additional credits of GRAD 5950 or GRAD 5960

Non-thesis option:

- At least 30 credits of advanced coursework
- Up to six credits can consist of upper-level undergraduate courses (3000- or 4000-level)

III. TIME-LINE AND KEY MILESTONES

Students will complete the following benchmarks by the stated times. Exceptions will be allowed as detailed below; in addition, any leave of absence approved by the Graduate School stops the clock on all items for the duration of the absence. Students should:

1. Consult your major advisor and decide on an initial list of courses for the first and second semester. Generally, M.S. students will take 3 courses per semester the first year and the graduate research credits (i.e. 5950) will be emphasized later in your degree after semester 3. Keep in mind that you will be looking to form an Advisory Committee and it is usually a good idea to take at least one course from each advisory committee member who is a member of the UConn faculty. Other than content-specific courses tailored to your research, it is required that students take the Earth Sciences Core class (ERTH 5000) during the first semester, or if they enter in the spring semester, the following fall.

2. Form a provisional committee of at least 3 faculty members, including the major advisor, before the start of the second semester. Each student is required to form an advisory committee that will guide them through their degree. Membership of the committee should be determined in consultation with your major adviser. Committee members must be members of the graduate faculty at UConn. If one of your proposed committee members is not at UConn, they can be added to the Graduate Faculty by submitting a form available on the Graduate School website.

The role of this committee is to guide the student's initial course selection and to help them begin planning their coursework and/or research. Committee members may be added or removed at any time, and changes are especially encouraged when they accommodate changes in direction. Provisional committee members do not need to be on the student's final committee.

3. Meet with their committee before the start of the second semester and at least annually thereafter. The student should meet with their provisional committee before the start of their second semester to initiate discussions about their coursework and/or research directions and plan of study. Thereafter, they should meet annually to update their committee on their progress and to discuss future plans.

4. Finalize committee membership and submit a *Plan of Study for the Master's Degree* to the Graduate School before the end of the third semester. The plan of study will identify the student's committee members and any courses that they require the student to take in order to complete their degree. The student should consult the graduate catalog to ensure that the plan is compliant with Graduate School requirements.

After committee membership has been formalized, subsequent changes in membership remain possible and are encouraged when they will help the student meet their goals. Similarly, changes to courses on the plan of study are encouraged when they will improve the student's ability to meet their goals. These changes require that a signed *Request for Changes in Plan of Study* form be submitted to the Graduate School.

Thesis Option:

5a. Submit a draft of the thesis to the committee at least three weeks before the defense. In order to receive helpful feedback from the advisory committee it is important for a student to consult with them throughout the writing period. Once the student has a final draft of the thesis, they should distribute it to all committee members and anyone else who will participate in the closed-door portion of the defense. If the student plans on submitting a portion of the thesis for publication before finishing the entire document, the committee should have an opportunity for review and comment prior to submission.

5b. Defend thesis (recommended: before the end of the fourth semester). The defense presentation should be scheduled for a 60-minute period in which the student gives a talk and takes questions from a general audience. This presentation will be followed by a closed door session with the student's committee. The defense must take place at least two weeks prior to the end of the semester in which the student plans to graduate. Following the defense, the student must submit the *Report on the Final Examination for the Master's Degree* form to the Graduate School and the Earth Sciences office.

Departmental support for thesis M.S. students is guaranteed for up to 2 years from the date of matriculation, subject to the continued availability of funds, satisfactory performance as a graduate assistant, and satisfactory progress towards degree completion. Students should, therefore, plan to complete their thesis defense/examination within this time frame. Students who

are writing a thesis sometimes complete the M.S. during the summer after the 4th semester; please note that financial support during the summer is contingent on the availability of funds.

Students who have not completed their M.S. by the beginning of 5th semester should submit a written statement to the Graduate Committee detailing the work that remains and a timeline for completion. Extensions will be granted on a semester-by-semester basis. Funding opportunities may be available. The decision to provide such funding opportunities lies with department head, in consultation with the Graduate Committee.

5c. Complete thesis (recommended: before the end of the fourth semester). For guidance on preparation of the thesis document, consult the graduate school website. A printed copy of the thesis must be submitted to Homer Babbidge Library for binding, and an electronic copy must be submitted to Digital Commons. The final thesis must meet all specifications outlined on the Graduate School website. An approval page bearing original signatures of all members of the advisory committee must be submitted to the Graduate School along with a copy of the *Master's Plan A Submission Checklist* signed by a Homer Babbidge Library staff member.

6. Apply for graduation online through the Student Administration System (recommended: before the end of the fourth semester).

Non-Thesis Option:

5d. Final examination (recommended: before the end of the fourth semester). The contents of the final examination are under the jurisdiction of the advisory committee. The committee has discretion to determine whether the examination shall be written, oral, or both. Invitation to participate in an oral examination is issued by the advisory committee, although members of the faculty may attend.

6. Apply for graduation online through the Student Administration System (recommended: before the end of the fourth semester).

Appendix 1
Graduate student support: Information, procedures, and expectations
UConn Department of Earth Sciences

Overview

In the Department of Earth Sciences, full-time Ph.D. and Plan A (Thesis) Masters students are guaranteed (assuming good progress) up to 5 or 2 years of financial support, respectively (note that this duration is dictated by UConn). This financial support comes in the form of a graduate assistantship (GA); some students may also receive fellowship money in addition to their GA. Graduate assistantships are university contracts that require specific teaching (TA) and/or research (RA) responsibilities during the academic year, and include a stipend (paid out over 9 months) and tuition waiver. While on a GA, the University provides an opportunity to purchase subsidized health insurance under the Connecticut Partnership Plan. The balance between teaching and research responsibilities for a student's GA commitment may vary throughout their tenure in the department. Extra financial support during the summer is not guaranteed. However, there are several opportunities for extra support that students may explore (see Section 2, below). Support packages are very individualized and highly dependent upon resources available to individual advisors. In this regard, the department recommends that students read appointment letters carefully and ask their advisors for details about how they will be financially supported during their tenure at UConn.

Note: Section 1 of this document does not apply to self-funded students (e.g., Plan B (non-thesis) students, students supported by the GI Bill, or those funded by their employer). Section 2 may apply to self-funded students in some cases.

1. Graduate Assistantships and Fellowships

1.1. Research Assistantships

1) Research Assistantships (RAs) involve research responsibilities, as assigned by a student's advisor. In some cases, the assigned duties may be unrelated to a student's thesis or dissertation research, or may be supervised by a faculty member who is not the student's major advisor. A full-time appointment requires 20 hours of work per week*. These appointments include in-person, on-campus responsibilities.

   **Please note:* this does not mean that RA students are only expected to work 20 hrs a week on their research. All students are expected to balance the required 20 hours per week associated with their GA with their coursework and research.

2) The number of RAs in the department fluctuates and is dependent upon the success of individual faculty in obtaining external funding to support the students in their research groups. RA support is directed towards specific students, as chosen by the advisor.

3) The department aims to assign research duties at least 30 days before the start of the semester. Upon learning of their appointment as a research assistant, students and advisors are expected to meet and complete a Description of Duties Form for Research Assistants form (https://hr.uconn.edu/wp-content/uploads/sites/1421/2022/05/Duties-RA.docx)

4) It is the responsibility of the RA to keep track of hours worked per week. If an RA has concerns that they are regularly exceeding their contracted hours, they should speak with their advisor to discuss how to remedy the situation. If the advisor and RA are not able to resolve the issue, the RA should discuss the problem with the graduate committee chair and/or the department head.

1.2. Teaching Assistantships

1) Teaching Assistantships (TAs) involve teaching responsibilities, as assigned by the department. A full-time appointment requires 20 hours of work per week. These appointments include in-person, on-campus responsibilities. Students are expected to balance the 20 hours per week associated with their TA with their coursework and research.

2) The number of TAs in the department is dictated by the College of Liberal Arts and Sciences. The criteria used by the college in allocating the TA budget to the department include enrollments and whether or not the course includes a lab or discussion section.

3) All TAs are expected to complete the New TA Orientation provided by the Department for Excellence in Teaching and Learning before embarking upon their first semester of teaching. This course is available prior to both the fall and spring semesters. TAs are also expected to attend department-specific training, which will normally take place either the week before the fall semester or during the first two weeks of classes. Such training will focus largely on ERTH 1050 labs. All students will be notified of the specifics of these activities well in advance.

4) TA duties are assigned with the following in mind:

a) Curricular needs, which define the "jobs" that are available in a given semester. It is important to note that only a subset of courses offered by the department are eligible for TA support, as dictated by the College of Liberal Arts and Sciences. In this regard, not all students supported as TAs will have opportunities to engage in teaching activities in upper level courses within their subdiscipline. By the same token, some TAs may be assigned to courses on topics that lie outside their direct area of expertise. In such cases, TAs should work with the instructor of the course to come up with a plan to overcome, work around, or accommodate a TA's lack of expertise.

b) Schedules. Priority is given to avoiding assignments that conflict with graduate coursework to be undertaken by those supported on TAs. This approach is to ensure that students are able to complete their coursework and to facilitate timely progress towards the degree.

c) Expertise and interest. When scheduling is not an issue, instructor preferences and student experience/expertise are considered when making assignments.

5) The department makes every effort to balance workloads, if not in a given year, then over the course of a student's tenure at UConn. In general, the following duties each equate to half of a full-time TA appointment, or 10 hours of work per week: teaching one lab section of ERTH 1050, assisting an instructor with a large-enrollment course, or assisting with upper level courses that have a lab section. All full-time TAs are assigned two such duties per semester.

6) To facilitate scheduling and work assignments, students are expected to provide the department with their course schedule for the semester at least 45 days before the start of the semester for which duties are to be assigned. A reminder will be sent out at least 60 days before the start of the semester, asking students to email their schedules to christin.donnelly@uconn.edu. Students may indicate preferences for TA duties at that time, which will be taken under consideration (see 1.2.4). Note that this requirement, dictated in part by the Graduate Employee Union (GEU-GAW), requires that students monitor and respond to departmental emails outside the academic year. This will also require that new students respond to the department prior to the start of their appointment.

7) The department aims to assign teaching duties at least 30 days before the start of the semester. The ability of the department to meet this deadline requires that all students comply with point 1.2.6. It is important to note that unforeseen events (e.g., scheduling conflicts, illnesses, under-enrollment of courses, unexpected opportunities, etc.) may lead to reassignment of duties within the 30-day window prior to the start of a semester.

8) Upon learning of their TA duties, students and the instructors with whom they are working are expected to meet and complete a Description of Duties Form for Teaching Assistants. Completed forms should be submitted to the department by email to christin.donnelly@uconn.edu. Any scheduling conflicts must be reported to the graduate chair as soon as possible so that they may be remedied in a timely manner.

9) During the week before classes, if not earlier, TAs and instructors are expected to meet to discuss the syllabus and course content. If the instructor does not make contact, TAs should contact instructors to set up a meeting. They should stay in regular communication throughout the semester. Regularly scheduled meetings are expected.

10) It is the responsibility of the TA to keep track of hours worked per week. If a TA has concerns that they are regularly exceeding their contracted hours, they should first speak with the instructor with whom they are working to discuss how to remedy the situation. If the instructor and TA are not able to resolve the issue, the TA should discuss the problem with the graduate committee chair and/or the department head.

11) The Center for Excellence in Teaching and Learning exists to support UConn faculty and teaching assistants in becoming more effective teachers. TAs should be aware of and utilize their online resources and professional development opportunities.

1.3. Fellowships

1) Fellowships are generally merit-based internal or external awards to support a student in a full-time course of study. Some fellowship funds (e.g., the UConn CLAS Dean's Fellowship) are distributed to the department and are the source of GA funds provided to the student. Other fellowships, such as those from UConn Graduate School (e.g., Jorgensen, Harriott, Crandall) or outside UConn entities (e.g., Fulbright, NSF), are distributed directly to the student.

2) Fellowships generally allow students more time to focus on research without other teaching or research responsibilities regularly associated with a TA or RA appointment. However, because the amount of funding varies for different fellowship students, students who receive fellowship also typically receive a GA contract as well. This is to ensure that each student receives a tuition waiver and, at a minimum, the salary equivalent of a full-time, two semester GA.

3) Regardless of the source of financial support (full fellowship, part fellowship/part GA, full GA), each year in the program counts in terms of the 5 or 2 years of financial support that full-time Ph.D. and Plan A Masters students are guaranteed.

4) Fellowships often have additional policies and expectations and students are responsible for ensuring that they remain compliant.

1.4. Distribution of Teaching Assistantships (TAs) and Research Assistantships (RAs)

1) Decisions about the balance between TA and RA assignments for a student in any given year are the prerogative of the advisor, who holds any funds that can be provided for RA support, and the graduate committee chair. These decisions are made at the time of the contract letter, prior to the fall semester and are typically **not** revisited prior to the spring semester.

2) The department prioritizes using RA funds over TA funds. This approach ensures that RA funds, which are tied to grants and contracts, are used up before they expire. It also allows the department to extend TA support to a larger number of students.

1.5. Offer letters and contracts

1) New students receive offer letters at the time they are admitted to UConn (typically in the spring semester prior to enrolling the following Fall). Continuing students can expect to receive an offer letter at least 60 days before the Fall semester. Offer letters must be signed and returned to the department before any duties may be assigned. In this regard, see Section 1.2 points 6, 7 and 8 regarding timelines.

   a) Unforeseen circumstances may arise that can lead to irregularities. For example, funds may become available that allow the department to hire new RAs or TAs shortly before the start of the semester. If funding circumstances change, it may be beneficial to a student to change their duties from teaching to research-related.

2. Opportunities for extra financial support

1) Some students may receive extra financial support, at times when they are not supported by fellowships or contracted to work full time as RAs or TAs. These opportunities are not included in the 5 or 2 years of financial support that Ph.D. and Plan A Masters students are guaranteed. The contract details, duration, and compensation amounts of these opportunities will vary.

2) Limited funds are provided to the department each year by the Graduate School and/or College of Liberal Arts and Sciences for extra support to Ph.D. students during the summer. These funds are divided evenly among Ph.D. students who are within the 5 year time limit of support.

3) There are several sources of **extra summer support** that a student may explore:
   a) Their advisor, who may have funds from grants and contracts, which can be deployed towards extra summer support.
   b) TA opportunities during the Summer Sessions (May Term, Summer Session 1, Summer Session 2, etc.).
   c) Adjunct opportunities during the Summer Sessions (May Term, Summer Session 1, Summer Session 2, etc.), which involve serving as the instructor for a course. These opportunities are most suited to PhD students.
   d) Work opportunities internal or external to the department.

4) **Non-summer** opportunities of extra support may include:
   a) TA opportunities during the Winter Session.
   b) Adjunct opportunities during the Winter Session, which involve serving as the instructor for a course. These opportunities are most suitable for PhD students.
   c) Adjunct opportunities on regional campuses during the academic year. These opportunities are most suitable for recent graduates and PhD students who are close to completion and/or who have used up their 5 years of guaranteed support.

5) To ensure equitable access for consideration, all internal (UConn-based) opportunities will be announced to all graduate students via email. It is the responsibility of interested students to monitor their email for such announcements and respond by deadlines.

6) Although the advisor should be consulted, it is the responsibility of the student to monitor and apply for opportunities (e.g., internships, fellowships, etc.) that are external to UConn.