

Department of Geosciences
Doctoral Student Handbook

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PART I. PROGRAM OVERVIEW

i. Mission Statement

The graduate program in the Department of Geosciences strives to produce knowledgeable and well-rounded graduate students. While in the program, students will develop skills, such as reading, writing, data acquisition, critical analysis, and communication, while simultaneously conducting an original research project. Students will be given opportunities to achieve a breadth of knowledge relevant to their area of research, publish their research in peer-reviewed publications, and participate in professional development. Embracing and enhancing diversity, equity, and inclusion among peers, faculty, staff, and other members of community within and external to the Department are central to this mission.

ii. PhD Program Learning Outcomes

Graduates of the PhD program in Geology will be able to:

- Demonstrate breadth of knowledge in the geosciences
- Exhibit fundamental knowledge within a chosen subdiscipline within the geosciences
- Formulate, evaluate, and defend testable scientific questions and hypotheses
- Acquire and implement skills in data collection and analysis
- Develop and carry out an original research project that contributes to a subfield of geoscience
- Develop and apply strong communication skills for (1) specialist and (2) non-scientist audiences
- Demonstrate the ability to work independently and collaboratively
- Build a network of colleagues and mentors

PART II. OBTAINING AND MAINTAINING PHD STATUS

In order to pursue graduate study at the University of Cincinnati, a student must hold a baccalaureate degree and provide official documentation of degree conferral. The student should have an official final transcript sent to the Graduate School, which displays degree certification. This is to be done prior to the start of the semester of matriculation.

Maintaining PhD student status is defined by the Graduate School as registering for the appropriate number of graduate credit hours per year and making steady progress toward degree requirements. The Department of Geosciences has additional criteria for maintaining status to which the student is expected to adhere in order to obtain financial support from one academic year to the next:

- Take part in training applicable to graduate student success, including teaching, assisting with field work or field trips, and attending guest speaker presentations.
- Enroll in required coursework.
- Obtain acceptable grades in lecture and laboratory courses (see section I.ii below).
- Complete Graduate Assistant duties as assigned.
- Form a complete dissertation committee by the end of the second semester in residence.
- Make satisfactory research progress as outlined by the primary advisor and dissertation committee.
- Submit funding proposals on an annual basis.
- Complete a preliminary examination during the first half of their fourth semester in residence.
- Submit a manuscript for publication by the end of the third year in residence.
- Submit an Annual Report each year.
- Meet with the Graduate Director and Academic Director on an annual basis to discuss progress.

If a student does not meet expectations set by the advisory committee and program, financial support may be revoked for a semester or academic year. The primary advisor and Graduate Director will draft a letter for the student stating the parameters that must be met in order for funding to be reinstated.

i. Graduate Credit Policies

Graduate credit can only be earned for those courses at the University of Cincinnati that are designated as graduate-level in the Schedule of Classes (6000-level or higher), or which have been approved in writing by appropriate program authority for inclusion in the curriculum. Students who have completed graduate work at other schools may petition the Graduate Director for transfer of credits earned elsewhere to be applied towards a graduate degree at the University of Cincinnati.

Each semester, a student receiving a Graduate Assistantship (i.e. receiving a stipend for serving as a Teaching Assistant or Research Assistant) must register for at least 12 *graduate* credit hours to be considered a full-time student. If the student would like to enroll in an undergraduate-level course, or would like to audit a graduate-level course, they may do so, as long as the student is also registered for 12 graduate credit hours. The student must not exceed 18 total credit hours (graduate, undergraduate, or audited) per semester.

A PhD student is required to complete at least 60 graduate credit hours beyond the Master's degree, or 90 graduate credit hours beyond a Bachelor's degree in order to graduate. Students are expected to complete all requirements for the degree in four years. If, due to extenuating circumstances, a student must continue in the program beyond four years, which is typically the maximum number of years funding is granted, the student must enroll for, and personally fund, at least one graduate credit per year in order to remain active. A student whose status has automatically terminated because of failure to register during an academic year will no longer be considered a graduate student but may seek reinstatement (<https://grad.uc.edu/fac-staff/handbook/grad-status/time-degree/reinstatements.html>). If a student remains inactive for three or more academic years, they must apply for readmission (<https://grad.uc.edu/fac-staff/handbook/grad-status/time-degree/readmission.html>). The student may seek reinstatement or readmission under the direction of their faculty advisor, Academic Director, and Graduate Director. Also note that students must register for at least one graduate credit hour during each semester (excluding summer semester) if they are using University resources such as libraries, University housing, campus laboratories, office space, equipment, recreational or computer facilities. The maximum time allowed by the Graduate School to complete all degree requirements is nine years past matriculation into the program.

ii. Maintaining a Satisfactory GPA

A student must accumulate a grade point average (GPA) of at least 3.0 to obtain a Doctor of Philosophy degree at the University of Cincinnati. At least two-thirds of the minimum graduate credits for the degree must be at a level of B or higher. See the Graduate Student Handbook (available at <https://grad.uc.edu/fac-staff/handbook.html>) for information on final exams, grade reports, grades assigned for repeated research courses, pass/fail grades, and grade changes.

iii. Required Geology Courses

During their four years in the program, each graduate student is required to enroll in the following courses: GEOL7025 Geology Colloquium (each fall and spring semester), GEOL7005 Graduate Research (fall semester of first year in residence), GEOL7030 Four Day Field Trip (when offered), and at least one credit of the appropriate section of GEOL9001 PhD Dissertation Research (each fall and spring semester). Students are also required to take at least 12 credit hours of lecture-, lecture/lab-, or lab-based courses during their first two years in residence. These courses should be offered by our department but students are also encouraged to take additional courses in other departments. Each student should consult with their faculty advisor to determine what courses would be most beneficial.

iv. Graduate Student Annual Report and Meeting with Academic and Graduate Directors

Students are expected to complete an annual report every spring (see Appendix 2 for the form). This report serves as a summary of the academic and research accomplishments by the student over the course of the year. The report should be completed by the student with the help of their faculty advisor and committee members. The student's faculty advisor must upload the completed report to the appropriate OneDrive folder by April 1. It is the student's responsibility to send their advisor the document well in advance of this deadline. Each student is also expected to meet with the Academic Director and Graduate Program Director to discuss their progress prior to the end of spring semester (the Graduate Director will circulate a schedule for these meetings in early April). Submission of a completed report and

meeting with the directors are both required in order to obtain financial support for the following academic year (details of financial support can be found in Part IV).

PART III. REQUIREMENTS FOR A DOCTOR OF PHILOSOPHY DEGREE

In addition to taking appropriate graduate-level courses and maintaining a satisfactory GPA, a PhD student must complete and defend a dissertation project under the supervision of a faculty advisor and support of an advisory committee to graduate with a PhD degree. Early and steady progress on the project is necessary in order to graduate within the four-year time frame. Accordingly, students will need to choose a research project and start working on it in earnest shortly after starting in the program. We have several benchmarks in place to help ensure students meet this schedule.

i. Proto-Committee

Early during the first term in residence, each graduate student will consult with their faculty advisor to choose and meet with a three-person proto-committee. This committee will help the student meet members of the geosciences faculty, get recommendations on what courses to take during fall and spring semesters the first year, gain recommendations on research activities that can be accomplished during the first year, and obtain advice and feedback that will promote timely dissertation completion and defense. This committee consists of the faculty advisor, a departmental faculty member with related research interests, and a departmental faculty member who adds breadth of knowledge outside of the student's main research area. The proto-committee may (but does not have to) translate into a student's five-person thesis committee, which is to be established by the end of the first semester in residence (described in more detail in the following section). A summary of the proto-committee meeting(s) should be recorded on the proto-committee form by the primary faculty advisor. This form is available in Appendix 1 of this document and can be accessed by the faculty advisor via the shared "Proto-committee" folder on OneDrive. The completed form should be uploaded by the student's primary faculty advisor to the OneDrive "Proto-committee" folder by the end of the first semester.

ii. Advisory Committee and Committee Meetings

Students should begin establishing their advisory committee by the end of the first semester and finalize the committee by the end of their second semester in residence. A student's primary advisor will assist the student in choosing at least four individuals to serve on the committee. At least two members of the committee (beyond the advisor) must be faculty members of the University of Cincinnati Department of Geosciences and at least one must be external to the department. Faculty or other qualified scientists from other universities or government agencies who wish to serve on a student's committee must be approved by the Graduate School (see the Academic Director for information).

Students are expected to meet regularly with their primary advisor, and to meet with their entire committee at least once per semester. It is up to the student to initiate and organize this meeting. If a committee member cannot be physically present, effort should be made to include the member remotely via Zoom, WebEx, Skype, etc. The student should provide the advisor and committee members with an outline before the meeting takes place describing what courses have been taken, participation in professional development or training, research progress, a draft of the thesis document, if applicable, and future research and writing plans, including details of upcoming field and/or lab work and associated costs. This information is then presented in more detail during the meeting. The student is to collect feedback from the advisor and committee members and summarize this information in their Annual Report.

iii. Advancing to Candidacy

Because the Ph.D. is primarily a research degree, the doctoral candidacy procedure for the Department of Geosciences places emphasis on evaluating the student's preparation to conduct doctoral research. In order to advance to PhD candidacy, the student must prepare a research proposal and defend this initial research summary via a qualifying exam attended by their advisory committee and other interested geosciences faculty. The candidacy process serves several purposes:

- To determine if the student has the background necessary to carry out the proposed research.
- To inform the department of the student's research interests. Based on this information, it is not uncommon for faculty outside of the student's committee to find articles that are relevant to the student's research or arrange personal contact with researchers who may be of help.
- To help the student with the design, structure and focus of the proposed research and ensure he or she understands the work it entails.
- To assist the student with formulating an accurate budget and discuss funding for the project.
- To provide the student and faculty with a schedule for research and completion of the requirements for a degree.
- To provide the student with an opportunity to draft proposal text that may be readily modified for submission to funding agencies.

Students should begin to formulate a research plan, in consultation with members of their advisory committee, by the end of the first semester in residence. In the following months, adequate time should be devoted to developing the background knowledge and expertise needed to conduct the planned research. Data collection in the field and/or laboratory and proposal submission to funding agencies, such as the Geological Society of America, Sigma Xi, and the American Association of Petroleum Geologists in the first year in residence is highly desirable.

Research Proposal

The research proposal should outline the student's own original planned research and should be written by the student (although input from the advisory committee is encouraged). The proposal document should be modeled after a standard NSF proposal or equivalent (e.g., NASA). See the [NSF Proposal and Award Policies and Procedures Guide](#) for information. The proposal document should be approximately 15 pages in length, single-spaced, with figures (but excluding references) and must include:

- A proposal summary – a one-page abstract describing the proposed research, explicitly addressing the NSF criteria of Intellectual Merit and Broader Impacts.
- A statement of problem - the research problem being addressed should be succinctly defined in a paragraph.
- Background information, including a review of literature relevant to the project. This should demonstrate knowledge of topical literature, including recent and historical contributions.
- Intellectual Merit - The contribution and significance of the proposed research/significance of the problem - a discussion of why this particular problem warrants doctoral research.
- The research approach - how will the problem be approached? What field or lab work will be done? What data are required? Will special equipment be needed?
- Results of the pilot study or preliminary results.
- Broader Impacts – How does the project benefit science beyond the student's specific field, or society in general, and how might its results be disseminated to the public?
- List of references cited (not included in the 15-page limit).
- Schedule of completion, including a research and writing timeline and presentation schedule.
- Budget justification, including current and pending sources of funding, and student stipend and tuition.
- A copy of the student's CV (not included in 15 pages).

Once complete, the proposal must be circulated to, and approved by, the advisory committee ***at least four weeks*** in advance of the qualifying exam. At this time, each committee member will evaluate the proposal (see evaluation rubric in Appendix I at the end of this document) and share their feedback with the student. The final proposal must be emailed to the Geosciences Department faculty for review ***at least two weeks*** prior to the exam.

A successful research proposal should meet the following criteria:

- Reflect mastery of subject matter and associated literature and demonstrate mastery of theoretical concepts.
- The project rationale should be well-defined.
- Hypotheses or research questions should be well-reasoned, clearly articulated, and well-supported. They should also be readily testable using methods outlined in the proposal.
- Critical assessment of relevant prior work (e.g., fundamental papers and data) should be included.

- Plan for analysis and design should be clearly articulated. Limitations of the proposed methods should also be noted.
- The proposal should explicitly mention if student is already proficient in skills needed for data collection, interpretation, and analysis, or should include a plan for obtaining needed skills.
- The proposal should demonstrate potential for discovery. Ideally, the proposed research would greatly extend previous work and should have strong publication potential.
- The proposed timeline needs to be realistic and should take into account the possibility of alternative ways to complete the research if needed.
- The proposal should demonstrate understanding of personnel, collections, field areas, equipment, etc. that will be critical for the student to be able to complete the project.
- Writing should be clear and easy to understand with no grammar or spelling errors. Organization should be logical. Use of high quality figures and visualizations is encouraged.

Qualifying Exam

The purpose of the qualifying exam is to assess if the candidate is prepared to conduct independent research at the Ph.D. level. The specifics of the research project and all directly relevant background, as well as the project's broader context will be assessed. Students should make sure that they can place their project within a broader geoscience context and articulate the implications of their proposed research. The student should approach the exam with the mindset of explaining and defending his or her research to a panel of trained scientists who are have a mix of expertise in the geosciences. They are strongly encouraged to communicate with individual committee members in advance of the exam regarding suggested topics to review.

The candidacy exam should take place during the first half of the student's fourth semester in residency. The student should consult independently with committee members about their expectations and particular topics to study well in advance of the exam. A preliminary meeting with the entire advisory committee is required ***at least three weeks prior to the exam.*** The purpose of this meeting is to ensure that the student is preparing properly for the exam and can make any necessary adjustments to (1) the proposal before circulating it with the faculty at large, or (2) the presentation prior to the exam.

The exam will be attended by the student's advisory committee, the Graduate Director, and other interested faculty from the Department of Geosciences. All faculty are welcome to attend and participate. The exam moderator is typically the current Graduate Director, but can be any active faculty member who is not currently on leave or a member of the student's doctoral committee. The moderator will:

- Ensure that the exam is equitably administered.
- Ensure that all faculty present have the opportunity to ask questions if they wish.
- Direct a change in topic if a current line of discussion is becoming unproductive.
- Direct a change in breadth of questioning, e.g., if too much time has been spent on very proposal-specific questions and questions on broader context need to be visited.
- Read questions from committee members not able to attend the exam.
- Determine when the exam is concluded.
- Officially record the voting and recommendations of the faculty.

For the exam itself, the student will give a 20- to 30-minute presentation of the proposed research. This will be followed by questions from the attending members of the committee and faculty.

A successful defense of the proposed research should meet the following criteria:

- Demonstrate mastery of subject matter as well as theoretical concepts directly related to their proposed research.
- Place the proposed research within a broader context. The student should be able to articulate how the proposed research builds on previous work (both directly related to the project and more broadly within the geosciences).
- Arguments and objectives should be well-defined and exhibit mature critical thinking skills and insights.

- Proposed research questions or hypothesis should be well-reasoned, clearly articulated, well-supported, and readily testable using presented methods.
- Demonstrate command of proposed methods. The student should provide an overview of proposed methods, noting any possible limitations and potential alternative approaches. Justify project feasibility by demonstrating a clear understanding of (and access to) the resources that will be critical for carrying out the proposed research and providing a realistic timeline.
- A well-organized and polished presentation. Slides should not contain grammar or spelling errors and should be easy to follow and understand.

When the questioning portion of the exam is complete, the student will leave the room to permit committee and faculty members to deliberate. All present for the exam will take a majority vote to determine whether the student passes, conditionally passes, or fails. If the student passes, he or she advances to Ph.D. candidacy and carries on with the proposed research under the supervision of the advisory committee. For a conditional pass, the Graduate Director and primary advisor will prepare a written report of the issues raised during the exam regarding the proposed research and provide recommendation for how those issues may be resolved. This summary is given to the student and the student's advisory committee. If the committee and faculty ask the student to meet again for a formal resolution of the issues raised, the Graduate Director is responsible for seeing that the questioning be limited only to those issues raised during the initial candidacy exam and included in the report. Resolution of a conditional pass should be made before the end of the following semester. If the student fails the exam, he or she may be given the option to retake it by the end of the following semester. Failure of a second exam may result in dismissal from the graduate program, or the student may be given the option to complete a portion of the proposed research to earn a Master's degree.

Once the student passes the candidacy exam, he or she should notify the Academic Director, who will submit the exam information into Catalyst. The student then receives a candidacy letter from the Graduate School.

iv. Dissertation Document

A dissertation represents significant original scholarship and serves as the primary product of doctoral research. There are two options for the document itself:

1. A traditional dissertation consisting of a single document with several chapters that includes consecutively numbered figures and tables interleaved with text and a single reference list at the end. There is no page limit for dissertations; emphasis should be placed on thorough, but concise text.
2. An alternative dissertation composed of a series of three or more manuscripts on a closely related theme, which are formatted as individual papers targeted for journals. The papers should be appropriate for submission to a refereed journal or edited book. Each paper will have its own abstract, separately numbered figures, and reference list. The journal/book targeted should be specified on each chapter (e.g., as a footnote on the first page) and the format for headings, references, figure captions, etc. must follow those of the designated publication.

Regardless of the format chosen, all dissertations should include a brief introductory chapter that outlines the broader goals/objectives and hypotheses tested, briefly summarizes each chapter, and discusses the overall goals and outcomes. Because it is important for a doctoral student to assemble a record of published scholarship, the Geosciences Department strongly encourages PhD students to consider the second option of dissertation preparation. This format of dissertation may also be preferable considering that in order to qualify for a fourth year of support, all PhD students must submit at least one paper to a referred journal or edited book prior to the end of their third year in residence. This paper should be considered an increment of the dissertation. Ideally, other papers should also be revised and accepted by peer-reviewed journals while the student is at UC. However, submission and publication of more than one manuscript is not required for completion of the dissertation or degree.

The dissertation document must be further formatted following the guidelines of the Graduate School and submitted electronically to the Graduate School (see details below in ETD Submission section) during the graduation process. The guidelines can be found at <https://grad.uc.edu/student-life/etd/formatting.html>. The dissertation needs to be submitted to the committee ***at least four weeks*** prior to a student's planned defense date.

Last, but not least, here are some specific criteria for a strong, well-written dissertation:

- Demonstrate mastery of subject matter, associated literature and theoretical concepts.
- The project rationale should be well-defined.
- The research should be placed in a broader context. This should include a review and critical assessment of prior (published) work conducted by others.
- Hypotheses or research questions should be well-reasoned, clearly articulated, and well-supported by the data.
- The study objectives and design should be clearly explained.
- Appropriate data analytical methods should be used, and their potential limitations should be noted.
- The conducted research should make an important contribution to the field and have strong publication potential.
- Writing should be clear and easy to understand with no grammar or spelling errors. Organization should be logical and images should be high quality.

v. Final Dissertation Defense

In addition to producing a dissertation document, a Ph.D. student must hold a final defense, which is a presentation summarizing the dissertation research and results followed by questions from faculty, committee members, and fellow graduate students. The student should meet with their entire committee ***at least three weeks*** prior to the defense date. The purpose of this meeting is to ensure that the student is on track for graduating and that they have time to make any necessary adjustments to (1) the dissertation before circulating it with the faculty at large, and (2) the final presentation. The student must announce the defense to geosciences faculty and fellow graduate students ***at least two weeks*** prior to the defense date. The student must also send their dissertation to the faculty at large ***at least one week*** prior to the defense. Ideally, the defense will take place during normal business day (9-5) when there are few class conflicts to allow faculty and other students to attend. See the Academic Director to secure a room in which to hold the defense.

The final defense proceeds as follows:

- 1) The student is introduced by the Graduate Director, who also serves as the defense moderator, and the faculty advisor.
- 2) The student presents their research in a presentation lasting no more than 45-50 minutes.
- 3) The presentation is followed by a general question and answer session. Anyone in the audience, but particularly fellow graduate students and any guests, is free to ask questions at this time. This general Q&A session will be followed by a more in-depth Q&A session that only includes the student's committee and any other faculty interested in asking more detailed or specific questions related to the student's project.
- 4) The committee and remaining departmental faculty discuss the student's presentation and ability to answer questions and a vote is made as to whether the student passes or fails the final defense.
- 5) The student is then immediately notified of the decision (they should remain nearby after the presentation).
- 6) If the student passes, they need to gather the signatures of the primary advisor and committee members on the Committee Approval form, which is generated through the Graduation Checklist (<https://grad.uc.edu/student-life/graduation.html>).

Criteria for a strong final presentation are similar to those listed above for the dissertation proposal defense (see Section III.iii). Please keep these criteria in mind as you prepare your talk.

vi. Typical Ph.D. Program Timetable

Ph.D. students should adhere to the following timetable for completion of degree requirements, unless other arrangements have been agreed upon by the primary advisor and Graduate Director. Each student is strongly encouraged to complete their degree by the end of spring semester of the eighth semester in residence. If a student does not make satisfactory research progress and/or does not meet requirements mandated by the faculty advisor and advisory committee, this may be grounds for termination of financial support or ultimately dismissal from the program. Faculty advisors are expected to help their students meet this timeline.

Year	Fall Semester	Spring Semester
1	<ul style="list-style-type: none"> Establish advisory committee with proto-committee early in the term. Present initial research summary and research plan to committee during first committee meeting. Record progress, including details of committee meeting on the Annual Report. Submit any relevant funding proposals that may have fall deadlines (e.g. NSF, GRFP) 	<ul style="list-style-type: none"> Finalize advisory committee. Submit at least one funding proposal (e.g. GSA or Sigma Xi). Report research and proposal progress to committee during committee meeting. Finalize Annual Report and send it to faculty advisor for review. The advisor submits the report to the Graduate Director by April 1. Meet with the Graduate and Academic directors for a degree progress check.
2	<ul style="list-style-type: none"> Meet with advisory committee to discuss the proposal and scheduling of the qualifying exam. Record details of the meeting on the Annual Report. Meet with the Academic Director to schedule qualifying exam and confirm availability of Graduate Director. Finalize proposal and send it to the advisory committee and other geoscience faculty following the required timeline. 	<ul style="list-style-type: none"> Hold qualifying exam (first half of semester). Report research and dissertation progress to committee during committee meeting. Finalize Annual Report and ensure it is submitted to the Graduate Director by April 1. Meet with Graduate and Academic directors for a degree progress check.
3	<ul style="list-style-type: none"> Report research and writing progress to committee during committee meeting. Update Annual Report Prepare a manuscript for publication. 	<ul style="list-style-type: none"> Submit manuscript for publication. Report research and writing progress to committee during committee meeting. Finalize Annual Report and ensure it is submitted to the Graduate Director by April 1. Meet with Graduate and Academic directors for a degree progress check and to discuss dissertation completion, defense, and graduation timeline
4	<ul style="list-style-type: none"> Report research and writing progress to committee during committee meeting. 	<ul style="list-style-type: none"> Meet with committee to report research and writing progress. If dissertation is finalized, submit document to advisor and committee for review and prepare for defense and graduation (see Section v below). If dissertation is not finalized, speak with advisor and committee about summer completion and graduation. Finalize Annual Report and ensure it is submitted to the Graduate Director by April 1.

A sample calendar that includes the dates for applying for graduation, dissertation defense, and electronic thesis and dissertation (ETD) submission is provided at the end of Section vi.

vii. Applying for Graduation and Document Submission

The Graduation Process

Application to graduate is done through the Graduate School website. The deadline typically occurs quite early in the term and students are strongly encouraged to pay attention to these deadlines. Deadline information can be found at <https://gradapps.uc.edu/graduationdeadlines/graduation-deadlines.aspx>. Before a student applies to graduate, they must confirm with their primary faculty advisor and advisory committee that they are indeed prepared to finalize the thesis document and defend within the given timeline. When students are ready to apply for graduation, they will need to access the Graduation Checklist (<https://grad.uc.edu/student-life/graduation.html>), which includes the graduation application and steps required to complete the graduation process.

If a student is not prepared to graduate in the spring semester, they student may graduate during the summer semester with no additional tuition costs. The timeline calendar below can be modified to reflect the deadlines for summer term. If the student is not prepared to graduate in the summer, they must graduate during the following school year. The

student is responsible for paying for one credit hour of GEOL9001 for fall semester in order to maintain active student status for the entire academic year.

ETD (Electronic Thesis and Defense) Submission

Once the dissertation document has been finalized and the student has obtained the appropriate signatures on the Committee Approval form, they must submit the document to the Graduate School. It is highly recommended that the student defends at least one week prior to the ETD submission deadline to allow enough time to make final edits to the document and to format the document properly. Full details on ETD formatting and submission can be found on the Graduate School's ETD Information website (<https://grad.uc.edu/student-life/etd.html>).

Below is a sample calendar displaying approximate deadlines for Spring graduation application and ETD (Electronic Thesis and Dissertation) submission. Suggested dates for sending the finalized thesis document to the advisory committee and geoscience faculty have been added. Remember, deadlines are mandated by the Graduate School and are subject to change. Be sure to verify deadlines for fall, spring, and summer graduation on the Graduate School's Critical Dates and Deadlines webpage (<https://grad.uc.edu/student-life/dates.html>).

M	Tu	W	Th	F	Sa/Sun
				February 1	2/3
4	5 Spring graduation application deadline	6	7	8	9/10
11	12	13	14	15	16/17
18	19	20	21 Email dissertation to committee	22	23/24
25	26	27	28 Meet with entire committee	March 1	2/3
4	5	6	7 Announce defense to department	8	9/10
11	12	13	14 Email dissertation document to all faculty	15	16/17
18	19	20	21 Hold thesis defense	22	23/24
25	26	27	28 ETD submission deadline	29	30/31

PART IV. FINANCIAL SUPPORT

i. Stipend and Tuition Scholarship Overview

Most of the students in the graduate program receive financial support on an academic-year (12-month) basis in the form of a stipend and full tuition scholarship provided by the Department and University, though occasionally a student is self-funded through an external fellowship (e.g. NSF Fellowship), traineeship (e.g. EPA traineeship), or grant through their faculty advisor. Financial support from the institution is limited to a maximum of four academic years for a PhD student. The student may receive an additional semester or year of support if external funding, such as a grant, scholarship, or fellowship is obtained by the student or faculty advisor. Students who receive a stipend and tuition

scholarship must be enrolled full-time (i.e. registered for a minimum of 12 graduate credits each semester) and are expected to take part in departmental events and training applicable to graduate student success, including teaching, assisting with field work or field trips, grant writing, and attending guest speaker presentations. Being awarded financial support beyond the first year is contingent upon making satisfactory research progress, submitting grant proposals, enrolling in required coursework, obtaining acceptable grades in lecture and laboratory courses, completing assigned Graduate Assistant duties, completing the annual report, and meeting with the Graduate Director and Academic Director at the end of the first year.

ii. Stipend and Tuition Scholarship Information

Graduate Assistantship (GA)

A Graduate Assistantship provides a student with a 12-month stipend of \$20,750 for the first, second, third, and fourth years in the program. The annual stipend is divided into two parts; \$15,750 is paid in bi-weekly increments over fall and spring terms and the remaining \$5,000 is disbursed to the student typically as a lump sum at the beginning of summer term. A payment schedule and any specific stipend-related information is provided to students individually by the Academic Director prior to fall semester. Students and their advisors are encouraged to seek additional summer funding through a grant or fellowship (e.g. the University Research Council, which is outlined in more detail below).

There are three forms of Graduate Assistantships: Teaching Assistantships, Research Assistantships, and Departmental Fellowships.

Teaching Assistantship (TA) – A TA is a professional academic appointment. Students receiving a teaching assistantship are expected to assist with teaching one or more classes or laboratory sections per semester. The expectation is that the recipient will gain useful experience as an instructor of Earth Science and improve their general communication skills. Graduate TAs are assigned to specific courses by the Academic Director, with direction from individual graduate students, Graduate Director, and faculty. TAs are typically assigned to a variety of courses throughout their time in the program in order to provide a diverse teaching experience and to even out possible inequities in workload. Any questions about TA assignments should be brought to the attention of the Academic Director.

The Graduate School mandates that a TA can work no more than 20 hours per week. All work assignments should relate specifically to the course to which the TA is assigned. Teaching assistant duties may include:

- Preparation and presentation of lectures and laboratories in undergraduate courses.
- Assisting in the preparation of teaching materials for lecture and laboratories.
- Assisting in the preparation and proctoring of examinations.
- Assisting in the grading of exams, homework, and laboratory exercises.
- Assisting in audio-visual presentation of class materials.
- Assisting with activities during lectures or laboratories.
- Participating in field trips, which may occur outside of regularly-scheduled class time.
- Tutoring and advising students on a one-to-one basis.
- Maintaining regular office hours.

Students are strongly encouraged to keep track of their hours and assigned duties, and to speak with the Graduate Director, Academic Director, or Department Head if there are concerns about workload.

Research Assistantship (RA) – A student may be assigned as an RA if the student's advisor has appropriate financial support, which is typically an external grant. RA duties involve lab or field work assigned by the faculty advisor related to the specific research project the grant is funding. An RA should be assigned no more than 20 hours of work per week. Depending on the stipulations of the source grant, an RA may have a stipend higher than the base stipend of \$20,750 defined by the Department. Stipends paid from a grant are processed through payroll on a 12-month schedule.

Departmental Fellowship (DF) – Each Ph.D. student is on fellowship during their fourth year in residence, unless otherwise notified by the Academic Director. This fellowship provides a \$15,750 stipend for the nine-month academic year, plus a \$5,000 summer stipend, and full tuition remission. Because this award does not require teaching duties, recipients are expected to make substantial progress in research and dissertation writing leading to a timely completion of the degree.

Tuition Scholarship

A University-funded tuition scholarship is provided to students serving as TAs and RAs. The scholarship covers full-time tuition and most fees, except for the Information Technology and Instructional Equipment (ITIE) fee, UC Student Health Insurance Plan fee, and the International Student fee (for international students only), which are assessed each semester. A student who has waived student health insurance will pay only the ITIE fee, which is approximately \$200 each semester. A student who has enrolled in student health insurance will be responsible for paying the student health insurance fee (the cost of student health insurance is decreased by applying for the GSHI award (see below in part iii)) and the ITIE fee. International students will pay an additional \$125 per semester (fall and spring) each year for the International Student fee.

iii. Additional Financial Assistance Sources

Outlined below are additional sources of financial assistance available to students during their time in the graduate program.

Graduate Student Health Insurance (GSHI) award – Students who enroll in the UC Student Health Insurance plan are strongly encouraged to apply for the GSHI award (<https://grad.uc.edu/student-life/awards/gshi.html>), provided by the Graduate School. The award is applied as a credit to your student account in Catalyst. The amount provided from one year to the next varies, but the award decreases the cost of student health insurance up to 75%. The student must apply for this award prior to the start of fall term each year.

Departmental Funds for Research and Travel – The Department provides a one-time award of \$600 to a Ph.D. student, which can be used for research-related travel, research supplies, or analytical costs. The Department also provides a \$300 award per year to those students who are traveling to present at a professional meeting. Please see the Business Manager for detailed information on obtaining these funds.

Graduate Student Government (GSG) Awards and Fellowships – The GSG provides awards of up to \$500 per year for conference travel for both presenting and non-presenting students. They also provide excellence awards and research fellowships. More information is provided on their website, <https://grad.uc.edu/student-life/awards/gsga-awards.html>.

University Research Council (URC) Fellowships – The University Research Council has awards of up to \$7,500 available, including summer stipend and research support (<https://research.uc.edu/funding/overview>).

Other Award Opportunities Provided by the Graduate School – The Graduate School has a website (<https://grad.uc.edu/student-life/awards.html>) devoted to the various University, College, and Graduate School awards available to graduate students, such as the Yates Scholarship, Provost Graduate Fellowship, and Excellence in Teaching awards.

External Funding Opportunities – PhD students are encouraged to seek research and travel funding from a variety of external sources, including the Geological Society of America (GSA), American Association of Petroleum Geologists (AAPG), and Sigma Xi. It is important for a student to seek guidance from their faculty advisor and committee members as to which external funding sources are applicable to their research.

iv. Outside Employment

Stipend and tuition support is an investment made by the Department of Geosciences and the University of Cincinnati in its graduate students and their research with the understanding that the student's focus will be devoted to the pursuit

of their graduate degree. It is, therefore, expected that funded students will not hold outside employment while in residence at UC.

PART V. ADDITIONAL INFORMATION

i. General Departmental Duties

All students receiving financial support from the department may be called upon to carry out general departmental duties in addition to assigned TA and RA duties. These include, but are not limited to, the following:

- Assistance with weekly colloquia.
- Assistance with the annual Career Days.
- Meeting with alumni and other departmental visitors.
- Attending presentations given by visitors outside of scheduled colloquia.
- Attending thesis and dissertation defenses of fellow graduate students.
- Mentoring undergraduate students.

ii. Office Space

Active graduate students (i.e. those who are enrolled and receiving stipend and tuition funding) will be provided with office space. Each student is assigned office space by the Academic Director. A student may request a particular office location and the request will be fulfilled if possible. A student may remain in the same office space from one year to the next, but this is not guaranteed. Students are asked to respect their office space and keep their desk space tidy. If a student does not adhere to these expectations, office space privileges may be revoked.

iii. Keys

Each student who is actively working towards degree completion will be assigned keys. A student should only be in possession of the keys he or she is assigned and should not lend or give keys to another student. Students are assigned keys that gain access to the main office, classrooms, requested labs, and office space. Keys are ordered in the main office by the student worker or Academic Director. The student will be charged \$20 per key through Catalyst if keys are not picked up within two weeks of being ordered or keys are lost and have to be reordered. Upon degree completion, all assigned keys are to be returned to Edwards Hall.

iv. Other Information Related to the University and Graduate School

The student is encouraged to view the Graduate Student Handbook (<https://grad.uc.edu/fac-staff/handbook.html>) provided by the Graduate School, which details University-level requirements and policies that apply to all graduate students at the University of Cincinnati.

PART VI. APPENDICES

Forms referred to above are provided on the following pages:

Appendix 1 – Proto-Committee Form

Appendix 2 – Annual Report

FIRST SEMESTER PROTO-COMMITTEE MEETING SUMMARY

Early during the first term in residence, each graduate student will consult with their faculty advisor to choose a three-person proto-committee. This committee consists of the faculty advisor, a departmental faculty member with related research interests, and a departmental faculty member who adds breadth of knowledge outside of the student's main research area. For Master's students, the proto-committee may translate into the three-person thesis committee, which is to be established by the end of the first semester in residence. For PhD students, proto-committee members may carry over to the five-person dissertation committee, which is to be established by the end of the second semester in residence.

The proto-committee will meet with the student to discuss the student's research and academic goals, interests, strengths, and weaknesses. The goal of this committee is to help the student develop an initial research and academic plan, including recommended courses, research activities, and milestones to be met that will guide the student toward a timely and successful Master's thesis or PhD dissertation defense. Prior to the meeting, the student should send their CV and transcript(s) to the proto-committee members. Possible talking points during the meeting include, "What is your background in geoscience?", "What are your long-term career goals?", "Are you aware of any gaps in your academic training that you would like to fill?", "Do you have any questions for the members of your proto-committee?"

Student's Name:

Degree:

Proto-committee Members:

Recommended Coursework: The committee should recommend courses that would provide the student with a solid foundation in their area of research and to fill any gaps in knowledge necessary for successful thesis and dissertation completion and defense. Recommendations should be made based on previous courses taken, the student's own academic assessment, and the student's research direction.

Recommended research activities for the first year:

Additional milestones that should be met in order to prepare for a timely defense:

Recommended additional activities, skills, and experiences that will help the student become a well-rounded geoscientist:

Meeting Date:

Faculty advisor name and signature:

Each member of the proto-committee should be sent a copy of this completed document. The faculty advisor will upload this document to the shared "Proto-committee Summary" folder in OneDrive.

Ph.D. ANNUAL PROGRESS REPORT

Completing this form is required of all students in the Geology PhD program to remain in good academic standing. The form must be submitted by continuing students to be eligible for summer financial support and by those students in their final year in order to graduate. Please complete the form (sections may be expanded as necessary), then send it to your advisor for review and comments. The advisor then uploads the form to the OneDrive folder "Graduate Student Annual Reports" by April 1.

Name:

Date:

Program Entry Term:

Date committee established:

Members of committee:

Approval submitted for external member(s)? Yes No

Committee meeting dates: Fall Semester: Spring semester:

Qualifying exam: Date planned: or Date occurred:

Advanced to candidacy (if applicable):

Month/year planned for final defense:

Provide a summary of research progress this academic year:

Courses taken this academic year (list grade earned for lecture- and lecture/lab-based courses):

Professional development participation (workshops, abstracts, publications, presentations, meetings attended, etc.):

Funding applied for and outcome of proposal(s):

Outreach and community service participation:

Activities related to building and strengthening a mentor network:

Advisor's comments (may add comments from committee members on their behalf):

According to the advisor, the progress of the student this academic year has been:

Excellent (exceeding expectations)

Good (on schedule/meeting expectations)

Satisfactory (meeting most expectations with minor issues)

Unsatisfactory (not meeting expectations)

Name of advisor and date:

Name of Graduate Director and date of review: