

Guidelines for completing an undergraduate Geology thesis (non-honors option)

Department of Geology
Portland State University

Objectives:

To provide well-qualified undergraduate students the opportunity to conduct research that includes: hypothesis development, research design, data collection, synthesis, and interpretation, presentation of results in written and oral professional communications, and research collaboration with faculty or other professional Earth scientists.

Eligibility:

A student may be an undergraduate or post baccalaureate student and is eligible to participate in this program if they meet the following prerequisites:

- Completed one year of 200-level math, one year of 200-level chemistry, and one year of 200-level physics;
- Completed all junior level geology core courses (G318/319, G312/313, G314/315, and G324);
- No incomplete grades in geology or allied science courses at the time of project initiation;
- Overall grade point average greater than 3.2 at PSU;
- Grade point average at least 3.33 in geology courses;
- Identified a willing thesis advisor.

A student that has interest in participating in the program leading to a B.A. or B.S. in Geology with Honors should notify the undergraduate advisor the term before initiating the project so that eligibility can be confirmed.

Time restrictions:

A student should carefully evaluate their time availability to conduct research and to determine whether they are able to meet the following time restrictions.

- The research project and written thesis must be completed and approved within **two** academic terms (e.g. Fall-Winter, Spring-Summer, etc).
- A student must be able to complete the project in two consecutive terms of enrollment.

Research Supervisor-Student Agreement:

The student, with the input of their direct research supervisor, needs to prepare a one-page summary of the research project providing a brief synopsis of the research topic, timetable and milestone dates, and the academic terms which the research is to be conducted and completed. The student and the research supervisor will both sign this document.

Credit:

- The student will register for 4 credits of G 401 Research (P/NP) during the first term and 4 credits of G 403 Thesis during the second term.
- The G 403 Thesis course must be graded A-F.
- G 403 Thesis may be used as an upper division elective in Geology to meet undergraduate degree requirements for the B.A. or B.S. in Geology.

General Timetable:

Students and advisors will need to develop the research project and timetable to meet the following guidelines.

Term 1:

- Student registers for G 401 Research (4 credits).
- During the first four weeks of the term, the student will work closely with the research supervisor to prepare a well-focused research proposal.

- The student will present the research proposal to the faculty at staff meeting and answer the faculty's questions about the proposal.
- The research proposal will be discussed by the faculty and either approved or modified by the student through consultation with their thesis advisor.
- A copy of the research proposal will be submitted to the Department to be placed in the student's file.
- The student will conduct research guided by the research proposal and research supervisor during the remaining weeks of the first term.
- By the end of the first term, the student will prepare a written summary indicating progress on the research, possible modifications to the research proposal, and plans for the next phase of the project (to be conducted during Term 2).
- The Written summary will be submitted to the research supervisor.
- The Research Supervisor will determine whether the student has made adequate progress on the project and determine whether it is likely the student will be able to complete the thesis by the end of Term 2. If the student is making satisfactory progress and is likely to complete by the end of Term 2, the research supervisor will allow the student to register for G 403 Thesis (4 credits) for the next term.

Term 2:

- Student registers for G 403 Thesis for 4 credits.
- The student continues to work on the research project under the supervision of the research supervisor. It is likely that data gathering will continue for the first 5 weeks of this term.
- During the last part of the term, the student is to prepare his/her written thesis and public presentation of research results. Students are encouraged to begin writing their thesis as early in this term as possible so that completion is assured.

- The research supervisor will help the student with writing the thesis and provide editing support. The student is encouraged to consult with other faculty with relevant expertise and take part in peer-review with other students completing theses during the writing process.
- At the end of Term 2, the student presents the written thesis to the research advisor for approval and presents a brief oral synopsis of the research to the public (this is not a defense of thesis). A digital copy of the written thesis is also prepared.
- The research supervisor determines the grade (A-F) to be awarded for the thesis and submits the grade. If the thesis is not completed by the end of the second term, the student may not use the credits to meet Geology Department degree requirements for the B.A. or B.S. degree and may be given a grade of Incomplete (I).
- Evaluation of the thesis is determined by the following grades (+/-).
A - Excellent, B - Superior, C – Average, D – Inferior, F - Failure.