Degree Requirements

• **Credit Hours:** Students are required to complete a minimum number of nine credit hours of coursework at the 400-level or above. Additionally, students will complete a minimum of eight additional credits in research and seminar. A maximum of three credit hours at the 400-level may be applied.

• **Grade Point Average:** Students must earn a minimum cumulative GPA of 3.0 and a minimum GPA of 3.0 in courses applied to the degree.

• **Benchmarks:** For details, please go to the Geology Degree Progress tab.

• **Preliminary Exam:** The student is required to pass a preliminary exam at the end of their second semester. The preliminary exam comprises a written research plan encompassing the first chapter of their dissertation and an oral presentation and defense of the plan to their preliminary exam committee. The preliminary exam is used to determine whether students can formulate a coherent, convincing research plan.

• **Proposal/Proposal Defense:** Upon successful completion of the preliminary examination and no later than the end of the fourth semester, the student will be expected to defend a dissertation research proposal. The research proposal comprises a written research plan and an oral presentation and defense of the proposal to their dissertation committee. Following from the oral proposal defense, the student will commence their oral comprehensive exam.

• **Oral Comprehensive (Candidacy) Exam:** The student is required to pass an oral comprehensive exam no later than the fourth semester. The examination covers general topics that the student may be expected to have familiarity with given their field of research and academic background. Passing the oral comprehensive exam marks the admission of the student to Ph.D. candidacy.

• **Dissertation/Dissertation Defense:** The dissertation must demonstrate an ability to carry out independent research. Chapters of the dissertation should meet the standards required for publication in a reputable peer-reviewed science journal. Once the written dissertation has been deemed defensible by their dissertation committee, Ph.D. candidates present an open oral defense of their dissertation to the department.

Curriculum Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 696</td>
<td>Graduate Seminar</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 697</td>
<td>Research (at least 6 credits)**</td>
<td>6</td>
</tr>
</tbody>
</table>

Graduate coursework at the 400-level or above* 9

Total Hours 17

* Excludes GEOL 600, 697, 700, and 797. Courses will be selected in consultation with an advisor.

** Students must complete at least six hours, however most students complete more than 50 credit hours of research.

Major Learning Outcomes

GEOLOGY

Students obtaining a doctorate in geology degree will be able to:

• Communicate geologic concepts orally and in writing
• Apply research skills to analyze geologic questions
• Propose, produce and defend original research of publishable quality
• Explain geologic principles as they relate to their area of research
• Effectively communicate the state of knowledge in their research area
• Identify research questions in geology
• Critique and assess peer-reviewed literature