Department of Geology,
Ph.D. requirements

The new version of the Ph.D. requirements.
Changes are highlighted in bold italics.

Department Requirements:

1. Ph.D. students must undertake a program that includes a minimum of 9 technical courses (for at least 25 units) prior to taking their Qualifying examination. The classes should be selected to provide breadth of knowledge appropriate for a Ph.D., and to provide the depth of knowledge appropriate in a student's specialization(s). Classes must be selected in consultation with the Advisory Committee, but can include classes in geology or other fields deemed appropriate by the Committee. Classes may be upper-division or graduate level. Students are encouraged to include GEL 281 and/or GEL 160 among these courses. (Note: a student with prior MS may include up to 4 courses from their MS work, including the breadth requirements discussed in part 2 immediately below).

2 The list of classes selected for (1) must include at least one (3 unit) seminar from each of three of the six subdisciplines listed below. These three classes must each include an oral presentation by the student. The requirement for oral presentation may be satisfied in the following courses (check with the instructor to find out):
   1. paleontology; 260, 263, 269
   2. sedimentology; 206, 226, 228 (if on a marine sediments topic)
   5. environmental geology/geomorphology/resources; TBA
   6. geophysics; 217, 232, 236, 238, 240, 241, 242
   (note: courses taken while a M.S. student may be used to satisfy this requirement)

3. Each Ph.D. student must serve at least one quarter as a Teaching Assistant in an undergraduate geology course offered by the Department. To qualify for a Teaching Assistantship, the student must take or have taken GEL 390, the T.A. orientation courses offered by the Department.

4. By the 6th week of the third quarter in residence, the student must submit a prospectus for his/her thesis research. The prospectus will not exceed 10 typed double-spaced pages and must include the following elements:
   i. Summary
   ii. Statement of problem to be solved.
   iii. Background, why the problem is important.
   iv. Method of solving the problem.
   v. Relevance of possible results to the solution of the problem.
   vi. References.

5. After completion of the prospectus, the student will meet with a committee composed of two Graduate Advisors and the dissertation advisor. Together, they
will discuss the proposal, the proposed research, and the ability of the student to complete the proposed research. This meeting can have the following outcomes:

i. The student may be encouraged to expand the prospectus into a formal Ph.D. dissertation proposal.

ii. The student may be required to modify and resubmit the prospectus for reevaluation by the committee.

iii. The student may be required to proceed toward a M.S. degree prior to continuing in the Ph.D. program. His/her suitability for the Ph.D. program will be reconsidered upon the successful completion of the M.S. degree.

iv. The student may be asked to leave the graduate program.

6. By the end of the 6th quarter in residence, the student is to submit a formal proposal for Ph.D. research. The proposal must be approved each member of the Advisory Committee. The student should submit the proposal for review by the committee well in advance of the Oral Qualifying Examination (see #7 below). Approval of the proposal must be received 30 days prior to the scheduled exam date. The proposals must have the following elements:

i. Summary.

ii. Introduction, statement of the problem, why it is important, and previous work.

iii. Proposed methods, how methods will allow the student to investigate the problem.

iv. Research plan, including a timetable

v. Relevance of possible results to the solution of the problem.

vi. Extensive references.

Approval of the proposal by the Advisory Committee indicates that they agree that the scientific questions posed by the student are appropriate at the Ph.D. level, that the research strategy is well founded, and that there is reasonable expectation that the Ph.D. research can be brought to a successful conclusion. Approval of the proposal indicates that it is defendable in the student's qualifying examination.

7. By the end of the 7th quarter in residence, the student should take his/her Qualifying Examination (see University Requirements above). Normally, this is an oral exam, and will consist of a short presentation of the proposed research followed by a question-and-answer period. The student in consultation with his Committee normally choose at least three topics upon which the student will be formally questioned. The examination typically takes about 3 hours. The student is encouraged to discuss the examination with each of the committee members well before the exam. The university specifies three criteria by which the student is judged:

1. Relevant portions of the student's previous academic record.

2. Performance on specific parts of the examination.

3. Overall evaluation of the student's performance and potential for scholarly research as indicated during the examination.

The student should remember that the oral exam will include a defense of the proposed research, including the problem, the methodology and the background.
8. All students completing a dissertation for the Ph.D. degree must present a public departmental seminar on the results of their work before the final copy can be accepted.

9. After all other degree requirements are fulfilled, and the dissertation is complete, the members of the dissertation committee will sign the final copy of the dissertation. The student will deliver the original, unbound copy to the Graduate Division and a permanently bound copy to the Geology Department. Reproducible copies of all plates must also be deposited in the Department.

10. A dissertation collection of samples and/or maps to be deposited with the Department may be required by the Dissertation Committee.
Department Requirements

1. Each Ph.D. student must demonstrate competence in two fields that are generally considered outside the subject of Geology. The ancillary fields provide additional expertise in another field of science or mathematics, or a reading knowledge of a foreign language. In order to preserve flexibility, the criteria for satisfying this requirement will be established by the Advisory Committee in consultation with the student. The requirement could consist of formal or informal course work, special examinations or other acceptable evidence of the acquisition of knowledge in these fields.

2. Ph.D. students must take at least one (3 unit) seminar course that requires an oral presentation from three of the six disciplines in the department. The requirement for oral presentation may be satisfied in the following courses (check with the instructor to find out):
   1. paleontology; 260, 263, 269
   2. sedimentology; 206, 226, 228 (if on a marine sediments topic)
   5. environmental geology/geomorphology/resources; TBA
   6. geophysics; 217, 232, 236, 238, 240, 241, 242
   (note: courses taken while a M.S. student may be used to satisfy this requirement)

3. Each Ph.D. student must serve at least one quarter as a Teaching Assistant in an undergraduate geology course offered by the Department.

4. By the 6th week of the third quarter in residence, the student must submit a prospectus for his/her thesis research. The prospectus will not exceed 10 typed double-spaced pages and must include the following elements:
   i. Summary
   ii. Statement of problem to be solved.
   iii. Background, why the problem is important.
   iv. Method of solving the problem.
   v. Relevance of possible results to the solution of the problem.
   vi. References.

5. After completion of the prospectus, the student will meet with a committee composed of two Graduate Advisors and the thesis advisor. Together, they will discuss the proposal, the proposed research, and the ability of the student to complete the proposed research. This meeting can have the following outcomes:
   i. The student may be encouraged to expand the prospectus into a formal Ph.D. dissertation proposal.
   ii. The student may be required to modify and resubmit the prospectus for reevaluation by the committee.
   iii. The student may be required to proceed toward a M.S. degree prior to continuing in the Ph.D. program. His/her suitability for the Ph.D. program will be reconsidered upon the successful completion of the M.S. degree.
   iv. The student may be asked to leave the graduate program.
6. By the end of the 6th quarter in residence, the student is to submit two formal proposals for Ph.D research. The two distinct proposals must be approved by the three-person Advisory Committee. The student should submit the proposal for review by the Advisory Committee well in advance of the Oral Qualifying Examination (see #6 below). Approval of the proposals must be received 30 days prior to the scheduled exam date. The proposals must have the following elements:

i. Summary.
ii. Introduction, statement of the problem, why it is important, and previous work.
iii. Proposed methods, how methods will allow the student to investigate the problem.
iv. Research plan, including a timetable
v. Relevance of possible results to the solution of the problem.
vi. Extensive references.
vii. Proposed budget.

7. By the end of the 7th quarter in residence, the student should take his/her Qualifying Examination (see University Requirements above). Normally, this is an oral exam, and will consist of a short presentation of the proposed research followed by a question-and-answer period. The student in consultation with his Committee normally choose at least three topics upon which the student will be formally questioned. The examination typically takes about 3 hours. The student is encouraged to discuss the examination with each of the committee members well before the exam.

8. All students completing a dissertation for the Ph.D. degree must present a public departmental seminar on the results of their work before the final copy can be accepted.

9. After all other degree requirements are fulfilled, and the dissertation is complete, the members of the dissertation committee will sign the final copy of the dissertation. The student will deliver the original, unbound copy to the Graduate Division and a permanently bound copy to the Geology Department. Reproducible copies of all plates must also be deposited in the Department.

10. A dissertation collection of samples and/or maps to be deposited with the Department may be required by the Dissertation Committee.
MS Requirements

New. MS requirements. Changes are marked in bold italics

Department Requirements

1. MS. students must undertake a program of a minimum of 6 courses (for at least 15 units) prior to taking their Qualifying examination. The classes should be selected to provide breadth of knowledge appropriate for a MS., and to provide the depth of knowledge appropriate in a student's specialization(s). Classes must be selected in consultation with the Advisory Committee, but can include classes in geology or other fields deemed appropriate by the Committee. Classes may be upper-division or graduate level. Students are encouraged to include GEL 281 and/or GEL 160 among these courses.

2. As a part of the above course requirements, the students workload must include one (3 unit) graduate (200) level course each from three of the six discipline areas in the Department:
   1. paleontology; 260,263,269
   2. sedimentology; 206,226, 228 (if on a topic in marine sedimentology)
   4. petrology/geochemistry; 215A, 215B, 227, 230, 231, 245, 246, 247,
      250, 254, 280, 282
   5. environmental geology/geomorphology/resources; TBA
   6. geophysics; 217, 232, 236, 238, 240, 241, 242

3. By the 6th week of the third quarter in residence, the student must submit a proposal for his/her thesis research. The proposal will not exceed 10 double spaced pages and must include the following elements:
   i. Summary
   ii. Statement of problem to be solved.
   iii. Background; why the problem is important.
   iv. Method of solving the problem.
   v. Relevance of possible results to the solution of the problem.
   vi. References.

4. After completion of the proposal and by the end of the third quarter, the student will meet with a committee composed of two Graduate Advisors and the thesis advisor. Together, they will discuss the proposal, the proposed research, its suitability for a M.S. thesis, and the ability of the student to complete the proposed research. This meeting can have the following outcomes.
   i. The student is encouraged to proceed with his/her M.S. research and thesis.
   ii. The student may be asked to take additional courses.
   iii. The student may be asked to modify the proposal or proposed research. The revised proposal will be submitted by the student and reevaluated by the committee.
   iv. The student may be asked to leave the program.

5. Upon the successful completion of the M.S. thesis, the student must present a public departmental seminar on the results of their work before a final draft can be accepted. The seminar must be presented during the academic year.
6. A permanently bound copy of the thesis must be presented to the department. Reproducible copies of all plates must also be deposited in the department.

7. A thesis collection of samples, software and/or maps to be deposited in the Department may be required by the Thesis Committee.
The Old MS Requirements

Department Requirements

1. In addition to the above course requirements, the students workload must include one (3 unit) graduate (200) level course each from three of the six discipline areas in the Department:
   1. paleontology; 260,263,269
   2. sedimentology; 206,226, 228 (if on a topic in marine sedimentology)
   5. environmental geology/geomorphology/resources; TBA
   6. geophysics; 217, 232, 236, 238, 240, 241, 242

2. By the 6th week of the third quarter in residence, the student must submit a proposal for his/her thesis research. The proposal will not exceed 10 double spaced pages and must include the following elements:
   i. Summary
   ii. Statement of problem to be solved.
   iii. Background; why the problem is important.
   iv. Method of solving the problem.
   v. Relevance of possible results to the solution of the problem.
   vi. References.

3. After completion of the proposal and by the end of the third quarter, the student will meet with a committee composed of two Graduate Advisors and the thesis advisor. Together, they will discuss the proposal, the proposed research, its suitability for a M.S. thesis, and the ability of the student to complete the proposed research. This meeting can have the following outcomes.
   i. The student is encouraged to proceed with his/her M.S. research and thesis.
   ii. The student may be asked to take additional courses.
   iii. The student may be asked to modify the proposal or proposed research. The revised proposal will be submitted by the student and reevaluated by the committee.
   iv. The student may be asked to leave the program.

4. Upon the successful completion of the M.S. thesis, the student must present a public departmental seminar on the results of their work before a final draft can be accepted. The seminar must be presented during the academic year.

5. A permanently bound copy of the thesis must be presented to the department. Reproducible copies of all plates must also be deposited in the department.

6. A thesis collection of samples, software and/or maps to be deposited in the Department may be required by the Thesis Committee.