

Guidelines for Earning an M.S. Degree in Geology at San José State University

Requirements

Requirements for completing the Master of Science program in Geology at SJSU (these are also listed in SJSU's catalog at <http://info.sjsu.edu/home/catalog.html>):

1. *Bachelor's Degree Equivalent*

All candidates must complete the *equivalent* of the SJSU B.S. degree in geology, with a strong background in science and mathematics. A degree in geology from another institution may be equivalent, but some schools have substantially different programs. A list of courses required at SJSU can be found at the end of this document; substitutions of courses from other universities must be approved by the graduate adviser, but all students will be expected to have completed an intensive field course before award of the degree. Upper-division undergraduate geology courses taken to satisfy this requirement can be applied towards the 12-unit electives requirement for the M.S. degree

2. *Seminar*

All students are required to enroll once in the Seminar, Geology 285. Topics and instructors change each semester. The Seminar can be taken at any time and can be repeated once for credit; the second time it counts as an "elective."

3. *Graduate Courses*

Twelve units of a student's program must be selected from graduate courses in geology: Geology 213, 214, 220, 222, 231, 234, 237, 238, 242, and 255. Topics covered in 255 vary and the course can be repeated for credit. Students emphasizing marine geology may substitute appropriate 200-level Marine Science courses offered at Moss Landing Marine Laboratories, subject to specific approval of the geology graduate adviser. However, at least one of the Geology courses listed here must be taken; furthermore, 12 units of the total 30-unit graduate program must be in SJSU Geology courses.

4. *Electives*

Twelve units of a student's program are electives. These can include graduate or upper-division undergraduate courses in the Geology Department or any other department. Up to 2 units (total) of Geology 298 (Research, independent study), and/or Geology 184 (Directed Reading) can be used for elective credit. Up to 6 units may be transferred from another institution, provided they were taken in the Graduate Division there and not counted towards the undergraduate degree. Electives should support the student's field of interest; courses in geology, geography, another science, mathematics or engineering would be likely choices. Courses designed for General Education are not allowed. The faculty member supervising a student's thesis research must approve the selection of the

electives.

5. *Geology 299*

Four units of Geology 299, Master's Thesis, are required to complete the 30-unit graduate program. Typically, one unit is taken each semester, beginning with the first semester at SJSU, until the requirement is satisfied.

6. *Competency in Written English*

All graduate students are required to demonstrate their competency in written English as a requirement for graduation. This requirement may be satisfied in one of several ways; the simplest would be by completing Geology 213, 231, 234, or 238. In addition, all CSU graduates are considered competent in writing. The list of ways for satisfying this requirement can be found here:

http://www.sjsu.edu/gape/current_students/completing_masters/

7. *Oral Examination*

The oral examination is a qualifying exam to be taken during the beginning phases of thesis research. It is scheduled by arrangement with the thesis committee. Prior to the oral examination, the student must provide a thesis proposal to the committee. The proposal should be prepared with input from the thesis adviser.

8. *Master's Thesis*

A master's thesis is required of all candidates. Assistance with the thesis and final approval are obtained from a thesis committee of at least 3 and generally only 3 persons. The chairperson, who is typically the thesis supervisor, and at least one other member of the committee must be regular faculty members (adjunct faculty are not counted as "regular" faculty) in the Geology Department. Qualified individuals not members of the faculty may serve on thesis committees, but more than half of the committee members must be members of the SJSU Geology faculty.

9. *Oral Presentation of Thesis Research*

Graduate students are required to make an oral presentation of their thesis research prior to graduation. The presentation is to be made at the regular speaker series sponsored by the Geology Club and will last 15 minutes, followed by 5-7 minutes for questions. The presentation should not be made before completion of the first draft of the thesis. Scheduling of the presentation shall be made with the approval of the student's thesis adviser; an attempt should be made to ensure that the other committee members can attend.

In addition to the program requirements listed above, the University requires all students to meet specific academic standards. A graduate student must maintain a cumulative grade-point average of 3.0 (B) in all units attempted subsequent to admission. If a student's grade point average falls below 3.0, the student may be placed on probation or disqualified from further enrollment. Once on probation, a student must make progress toward returning to clear status

by earning better than a 3.0 grade-point average each semester. Reinstatement following disqualification requires that the student complete 6–9 units of approved 100-level undergraduate courses; these courses may or may not count toward the M.S. program.

Recommended Procedure

So, how is it actually done? The typical candidate starts by enrolling in courses. It is important to become acquainted with as many as possible of the students, faculty members, and activities in the department. Students are the most important source of information on matters of survival in the system. Most of the specific procedures involved in obtaining a degree are worked out in coordination with the thesis supervisor, and it is important to become acquainted early on with a faculty member who will serve as a supervisor.

As one might imagine, there are forms that need to be submitted at various times. These and other formal steps are summarized here in roughly the order in which they are encountered by a typical student.

1. Registration

Registration for classes at San Jose State University is done online through MySJSU. All students should keep in contact with the Graduate Adviser concerning requirements, etc.

2. Thesis Adviser

During the application process, the student will have contacted their potential graduate adviser and the student will be accepted to the program with the understanding that they will work with this faculty member. It is expected that the student will consult with her/his adviser at least once a semester although more often is preferable. In the event the student selects a thesis topic that better fits the expertise of another faculty member, the adviser can be changed if all parties are in agreement. It is recommended that students begin planning a thesis project as early as possible; thesis research should begin by the start of the second academic year.

3. Thesis Committee

The other members of the thesis committee are selected by agreement between the student and the thesis supervisor. It is recommended that the student take at least one course from each of the faculty members whom s/he expects to be on her/his thesis committee.

4. Thesis Proposal and Oral Examination

In the early stages of thesis research, each student is required to pass an oral examination. The oral exam must be preceded by a thesis proposal approved by the thesis adviser. This proposal should be made available to the other committee members at least one week before the exam. There is no proscribed format or length, but most proposals are 5–15 pages and include figures. The following is generally included in all proposals:

1) Introduction to the problem; 2) Background information; 3) Hypotheses to be tested

and project goals; 4) Methods describing how problems will be solved; 5) Timeline for research; 6) References.

The exam typically centers on the thesis topic and questions generally are related to the chosen type of thesis. The Geology Department expects that the student will know the complete context of the thesis project, the content of the most relevant references, and the potential value of the thesis project to the geologic discipline. The student should consult with each thesis committee member prior to the examination concerning preparation for it.

Following the exam, the thesis committee will exercise one of the following options:

- (a) Pass
- (b) Qualified Pass: the student may be asked to complete remedial reading, additional course work, or other specified work
- (c) Fail: the student must repeat the exam during the following semester
- (d) Fail: the student will be dismissed from the program

Upon successful completion of the oral examination, the student may be eligible for a \$200 grant from the Geology Department to help defray research costs (e.g., travel, equipment, etc.). The student must submit receipts to the department for reimbursement.

5. *Candidacy Form*

The "Petition for Advancement to Graduate Candidacy" form is a contract that lists the 30-unit program of courses that must be completed by each student to graduate. This form is submitted after the student has successfully completed the Graduate Writing Assessment Requirement and passed her/his oral exam. The form is filed with the Graduate Admission and Program Evaluation (GAPE) office and may be filed before all of the courses have been completed but must be submitted at least 8–9 months prior to graduation. After passing the oral exam, a student should see the graduate adviser to have the proposed program prepared and submitted. Upon approval by the Office of Graduate Studies, this becomes an "approved program," and the student is advanced to candidacy for the Master's degree. If a change is made to the program, the "Request for Course Substitution" form must be submitted to GAPE.

No course included in the program may be older than 7 years at the time a student receives the Master's degree. New courses must be added to the program to replace those that become outdated. Under certain circumstances, expired courses may be "revalidated" by a written examination or other test of subject competency as required by the faculty. No more than one-third (10 units) of the program may be revalidated.

6. *Oral Presentation*

See p. 2, item 9.

7. *Application for Award of Master's Degree*

Early in the student's final semester (check Graduate Studies website for exact date), the student must file an Application for Award of Master's Degree, available from the Office of

Graduate Studies. If the thesis is not completed that semester, the student must re-file the application and pay a fee.

8. *Geology 1290R*

Students who have completed all of their degree requirements other than their thesis **and** are not enrolled in any other courses **must** sign up for a unit of 1290R. Enrollment must be repeated each semester until degree completion. There are no class meetings for the course as it is supervisory in nature; however, there is a modest fee associated with it. Registration for the course is delayed until students are given the opportunity to enroll in other courses. The Registrar's Office will check to determine the students who are eligible and will notify the students via a MySJSU message. The students may then register online through MySJSU. Visit this webpage for further details:
<http://www.sjsu.edu/gup/gradstudies/policy/rpguidelines/>

9. *Thesis Approval*

The thesis should be prepared in close consultation with the thesis supervisor and thesis committee. Specific information about format guidelines, deadlines, and other matters can be found on the websites of the Office of Graduate and Undergraduate Programs (GUP) and the Geology Department. Other specific questions should be directed to the thesis supervisor or graduate advisor.

The signatures of all members of the thesis committee must be secured before submitting the thesis to GUP, as a .pdf file, for approval. GUP will only review a thesis once each semester.

Full-text versions of the thesis are available through the MLK Library's online institutional repository, depending on the publishing and license options the student selects. Students may order bound paper copies of their thesis through the ETD administrator.

A pdf of the thesis and a paper copy in a 3-ring binder must be submitted to the Geology Department when the final electronic version is sent to GUP. It is a good idea to check <http://www.sjsu.edu/gradstudies/thesis/deadlines/> each semester for the latest instructions and guidelines, as failure to submit the thesis as instructed is likely to result in a delay in graduation.

When the course work has been completed and the thesis has been signed by the thesis committee and accepted by the Office of Graduate Studies, the University will award a Master's degree at the next commencement.

Congratulations!

CORE GEOLOGY CLASSES REQUIRED FOR NON-MAJORS EARNING AN M.S. GEOLOGY DEGREE

1	General Geology	
7	Historical Geology	4
28	Geology Outdoors	1
120	Fundamentals of Mineralogy	3
122	Petrology	4
124	Sedimentology & Stratigraphy	3
125	Structural Geology	4
129	Field Geology (Field Camp)	4

REQUIRED SUPPORTING COURSES

Calculus – 2 semesters

Chemistry – 2 semesters

Physics – 2 semesters