

REQUIREMENTS, RECOMMENDATIONS AND PROCEDURES
FOR EARNING THE DEGREE OF MASTER OF SCIENCE IN GEOLOGY
AT SAN JOSE STATE UNIVERSITY

Requirements

Requirements for completing the Master of Science program in Geology are listed in the San Jose State University Graduate Catalog, which is available online at: <http://info.sjsu.edu/home/catalog.html>. There are 9 requirements including:

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/or mathematics. A degree in geology from another institution may be equivalent, but some schools have quite different programs. A list of courses required at SJSU is attached at the back; substitutions of courses from other universities must meet with the approval of the graduate advisor, but all students will be expected to have completed an intensive field course before award of the degree. Any courses taken to satisfy this requirement are in addition to courses taken for the Master's degree program.

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 205, 213, 214, 220, 222, 231, 234, 238, 255 and 296. 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 advisor. 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 for the undergraduate degree.

Electives should be supportive of a student's field of interest; courses in geology, 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 and the graduate advisor 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.

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 incidental to completion of Geology 214, 220, 222, 231, or 238.

7. Oral Examination.

The "oral examination" required of all candidates is a qualifying exam to be taken during the beginning phases of thesis research. It is scheduled by arrangement with a student's thesis supervisor.

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, or thesis supervisor, and at least one other member of the committee must be regular faculty members 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 advisor, and should be such that the thesis committee can be in attendance.

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 units of approved undergraduate courses; these courses will 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 here summarized 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 by the internet. Students receive a "pin number" that enables access to the registration system. All students should keep in contact with the Graduate Advisor concerning requirements, etc.

2. Thesis Supervisor.

On the basis of the student's interests at the time of application, a thesis advisor will be assigned to the student. It is expected that the student will consult with his/her assigned advisor at least once a semester. In the event the student selects a thesis topic that better fits the expertise of another faculty member, the advisor can be changed if all parties are in agreement. It is recommended that students begin planning a thesis project as early as possible; it is not desirable to complete all course work before beginning thesis research.

3. Thesis Committee.

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

4. 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 advisor. This proposal should be made available to the other Committee members at least one week in advance of the exam. The exam usually 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 all of the Thesis Committee members 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 - subject to remedial reading, additional course work, or other specified work
- c) Fail - repeat the exam during the following semester
- d) Fail

A form verifying that the oral exam was passed is signed by the thesis advisor and sent to the graduate advisor.

5. Geology 299 and Other Independent Study Courses

Master's Thesis (Geology 299), Directed Reading (Geology 184), and Research/Independent Study (Geology 298) involve independent work and an individual relationship between a student and a faculty member. So that the Office of Records can be advised of the name of the faculty member associated with each student, the Department requires that each student submit a consent form to the Department Office each time he/she registers for one of these courses. The form is available from the Department Office and requires the signature of the faculty member supervising the work. All graduate students are required to enroll in a total of 4 units of Geology 299. Geology 299 can be taken concurrently with other courses.

The grade of SP (satisfactory progress) generally is posted for Geology 299. Upon completion of the thesis, this is changed to CR (credit), provided that the thesis is completed within 2 years. If the signed thesis is not received by the Office of Graduate Studies within 2 years of the time that the Geology 299 was taken, the SP grade is changed to NC (no credit), and the student must re-enroll in Geology 299.

6. Approved Program.

A proposed graduate degree program, listing the 30-unit program of courses, must be filed with the Office of Graduate Studies. This can be filed at any time after the oral exam has been passed and deficiencies have been removed; it may be filed before all of the courses have been completed but must be done 10 months prior to graduation. After passing the oral exam, a student should see the graduate advisor 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.

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 or "revalidated" by a special procedure, involving a written examination. No more than one-third (10 units) of the program may be revalidated. As noted in Item 5, above, Geology 299 enrollments expire within 2 years and will need to be replaced with new enrollments.

7. Oral Presentation.

See p. 2, item 9.

8. Application for Award of Master's Degree.

Early in the semester (check Graduate Studies website [<http://www2.sjsu.edu/gradstudies>] for exact date) during which a student plans to complete his/her thesis, 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. The student is currently charged \$10.00 by Graduate Studies if it is necessary to refile.

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 obtained from the websites of Graduate Studies and the Geology Department. Other specific questions should be directed to the latter or to the thesis supervisor.

The signatures of all members of the thesis committee must be secured before submitting the thesis to the Office of Graduate Studies for approval. After receiving approval from Graduate Studies, the student should submit additional copies to that office for binding. Normally, at least 5 copies of the thesis are prepared for distribution as follows:

University Library (2 copies), Geology Department
(1 copy), thesis supervisor (1 copy), student (1 copy).

For theses done under the supervision of faculty at the Moss Landing Marine Laboratories, an additional copy is required for the library at Moss Landing.

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!

*It is Department of Geology Policy *not* to allow extensions past the University deadline.

B.S. GEOLOGY - SAN JOSE STATE UNIVERSITY***REQUIRED GEOLOGY COURSES (28 semester units)**

3	Planet Earth	3
4L	Planet Earth: The Lab	1
7	Earth, Time, and Life	4
28	Geology Outdoors	1
100W	Writing Workshop	3
122	Mineralogy & Petrology I	5
124	Sedimentology & Stratigraphy	3
125	Structural Geology	4
129	Field Geology	4

****GEOLOGY ELECTIVES (24 semester units)**

126	Paleontology	3
127	Tectonics	3
129	Field Geology	2
130	Marine Geology	3
132	Mineralogy & Petrology II	5
134	Geomorphology	3
135	Geochemistry	3
136	Map & Aerial Photo	3
137	Intro to GPS/GIS	3
138	Hydrogeology	4
140	Engineering Geology	4
147	Applied Geophysics	3
174	Hazardous Materials	3
MS 141	Geological Oceanography	4

REQUIRED SUPPORTING COURSES

Calculus – 2 semesters

Chemistry – 2 semesters

Physics – 2 semesters

*Names of courses will differ between universities.

**Students have to take 24 units of electives in Geology. Geology courses at other universities covering different material may also count toward this number.