

# GEOSCIENCES MS

## More Information

### Advising Requirement

Advising is mandatory for this program. Consult your department advisor or program coordinator for information.

The Master of Science in Geosciences is designed for students who wish to transition from an undergraduate degree to the workforce in professional science, or for students who desire additional research experience before entering a postgraduate degree program. Tracks of study are available in geology and hydrogeology. The curriculum is composed of several core courses within a discipline followed by courses selected by the student's individual needs or interest. Our faculty conducts active research in geochemistry, hydrology, hydrogeology, volcanology, structural geology, paleontology, sedimentary geology, igneous petrology, and economic geology. The department maintains high expectations and standards for professional conduct and productivity which prepare students to meet their specific goals.

## Requirements for the MS in Geosciences

Completion of all requirements as established by the graduate advisory committee, and Graduate Studies, to include:

1. Completion of an approved program consisting of 30 units of 400/500/600-level courses as follows:
  - a. At least 18 units in geosciences, which must include EARTH 600, EARTH 601, EARTH 602, and EARTH 660 or MATH 615.
  - b. Graduate courses from geosciences or other areas (e.g., mathematics, engineering, chemistry, or biological sciences) may be selected to constitute the remaining 12 units, with the approval of the graduate advisory committee and the Graduate Coordinator. Substitutions for required courses must be taken at California State University, Chico and must be approved by the Graduate Coordinator.
  - c. At least 18 of the units required for the degree in 600-level courses.
  - d. At the discretion of the academic program, a maximum of 30 percent of the units counted toward the degree requirements may be special session credit earned in non-matriculated status combined with all transfer coursework. This applies to special session credit earned through Open University, or in courses offered for academic credit through Regional and Continuing Education. Correspondence courses and UC Extension coursework are not acceptable for transfer.
  - e. Not more than 15 units taken before admission to classified status.
  - f. At least nine units completed after advancement to candidacy.
  - g. Not more than 10 units of Independent Study (697) and Master's Thesis (699T); not more than 6 units of Master's Thesis (699T).
2. Completion and final approval of a thesis as specified by the student's graduate advisory committee.
3. Satisfactory completion of a comprehensive final examination (written and/or oral) in the field of study.
4. Approval by the graduate advisory committee and the Graduate Council on behalf of the faculty of the University.

Course	Title	Units
ERTH 600	Graduate Seminar I	1
ERTH 601	Graduate Seminar II	1
ERTH 602	Graduate Seminar III	1
ERTH 660	Numerical Analysis	3
or MATH 615	Statistical Methods for Graduate Research	
ERTH 617	Advanced Topics in Geology	3
ERTH 699T	Master's Thesis	1-6
Select five to six units from the following:		5-6
ERTH 630	Geotectonic Development of California	
ERTH 640	Hydrogeochemistry	
ERTH 650	Environmental Monitoring	
ERTH 652	Science and Environmental Regulations	
Select 9-15 units from courses approved by the graduate advisory committee <sup>1</sup>		9-15

<sup>1</sup> Select sufficient units to ensure 30 in the program.

## The Option in Hydrology/Hydrogeology

Course	Title	Units
ERTH 600	Graduate Seminar I	1
ERTH 601	Graduate Seminar II	1
ERTH 602	Graduate Seminar III	1
ERTH 660	Numerical Analysis	3
or MATH 615	Statistical Methods for Graduate Research	
ERTH 699T	Master's Thesis	1-6
Select three units from the following:		3
ERTH 617	Advanced Topics in Geology	
ERTH 621	Advanced Topics in Hydrology	
Select five to six units from the following:		5-6
ERTH 630	Geotectonic Development of California	
ERTH 640	Hydrogeochemistry	
ERTH 650	Environmental Monitoring	
ERTH 652	Science and Environmental Regulations	
Select 9-15 units from courses approved by the graduate advisory committee <sup>1</sup>		9-15

<sup>1</sup> Select sufficient units to ensure 30 in the program

## Graduate Grading Requirements

All courses in the major (with the exceptions of Independent Study - 697, Comprehensive Examination - 696, Master's Project - 699P, and Master's Thesis - 699T) must be taken for a letter grade, except those courses specified by the department as ABC/No Credit (400/500-level courses), AB/No Credit (600-level courses), or Credit/No Credit grading only. A maximum of 10 units combined of ABC/No Credit, AB/No Credit, and Credit/No Credit grades may be used on the approved program (including 697, 696, 699P, 699T and courses outside the major). While grading standards are determined by individual programs and instructors, it is also the policy of the University that unsatisfactory grades may be given when work fails to reflect achievement of the high standards, including high writing standards, expected of students pursuing graduate study.

Students must maintain a minimum 3.0 grade point average in each of the following three categories: all course work taken at any accredited

institution subsequent to admission to the master's program; all course work taken at Chico State subsequent to admission to the program; and all courses on the approved master's degree program.

Continuous enrollment is required. At the discretion of the academic program, a maximum of 30 percent of the units counted toward the degree requirements may be special session credit earned in non-matriculated status combined with all transfer coursework. This applies to special session credit earned through Open University, or in courses offered for academic credit through Regional and Continuing Education.

## Graduate Time Limit

All requirements for the degree are to be completed within five years of the end of the semester of enrollment in the oldest course applied toward the degree. See Master's Degree Requirements (<https://catalog.csuchico.edu/graduate-requirements/masters-degree-requirements/>) for complete details on general degree requirements.

The MS degree in Geosciences is available for advanced study in any aspect of Geosciences including geology and hydrology. Prospective students should discuss their interests and goals with the department Graduate Coordinator.

## Graduate Requirement in Writing Proficiency

All students must demonstrate competency in writing skills as a requirement for graduation. Geosciences students will normally demonstrate their writing proficiency through successful completion of EARTH 600, EARTH 601, and EARTH 602, or approved substitute.

## Prerequisites for Admission to Conditionally Classified Status

1. Satisfactory grade point average as specified in Graduate and Postbaccalaureate Admission Requirements (<https://catalog.csuchico.edu/graduate-requirements/graduate-postbaccalaureate-admission-requirements/>).
2. Approval by the department and Graduate Studies.
3. An acceptable baccalaureate in one of the natural sciences, engineering, or mathematics from an accredited institution, or an equivalent approved by Graduate Studies. The prospective student must have sufficient background to undertake a graduate program in the Geosciences. (The Option in Hydrology/Hydrogeology requires a year each of college chemistry, calculus, and physics.). Applicants without a sufficient background may be conditionally admitted, pending the correction of deficiencies as specified by the department.
4. A one-page "Statement of Purpose" that addresses the following questions:
  - a. The area of study in which you wish to specialize and why.
  - b. The faculty members with whom you would like to conduct research.
  - c. Your career goals and plans for the future.
  - d. Your special preparation in and fitness for your proposed area of study.
  - e. Explanations of any problems or inconsistencies in your records or scores.
5. Submission of two letters of recommendation from individuals who have had a working or academic relationship with you. Letters should

address your personal characteristics, performance, experience, strengths, weaknesses, capabilities, and professional promise.

6. Acceptance by a faculty mentor in the program who will serve as the thesis advisor.

## Advancement to Classified Status

In addition to any requirements listed above:

1. Formation of a graduate advisory committee, consisting of at least two members and including at least one tenured or tenure-track member of the Department of Earth and Environmental Sciences.
2. Submission of an approved Master's Degree program plan, developed in consultation with the graduate advisory committee.
3. Correction of all deficiencies in background as specified by the department at the time of admission.

## Advancement to Candidacy

In addition to any requirements listed above:

1. Completion of at least nine units of the approved Master's Degree program plan at the University and completion of any specific course work as specified by the graduate advisory committee.
2. Submission of a thesis proposal approved by the graduate advisory committee.