

# Graduate Program Handbook



SACRAMENTO  
STATE

Department of Geology

*California State University, Sacramento*

*Revised Fall, 2017*

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## I. Application for Admission

All applicants to the graduate program must be admitted both by the Department of Geology and by the University; hence, admission is a two-stage process. Therefore, applicants must apply to the Department of Geology to determine eligibility for admission to the department's graduate program and to the Office of Graduate Studies to determine eligibility for admission to the university.

**Note:** *an applicant who is accepted into the department's graduate program but is not admissible to the university will be denied admission.*

### A. New Applicants

University and Department of Geology applications must be completed by February 1 for admission in the following fall semester. There is currently no general call for admission for students to begin in the spring semester.

Application to the Graduate Program in Geology is a two-stage process. All prospective graduate students, including Sacramento State graduates, must submit both a university application (through CSU Mentor) and a supplementary application directly to the Department of Geology.

To apply to the Department of Geology Graduate Program, the applicant must submit all of the following application materials by the posted deadline above to: Dept. of Geology, 6000 J Street, CSU Sacramento, Sacramento, CA 95819:

1. Please go to <http://www.csus.edu/gradstudies/FutureStudents/GraduateAdmissions/> for information on the online university application process to the Graduate School.
2. You will also need to submit application materials to the Geology Department which consists of:
  - a. 3 letters of recommendation (can be emailed to [geology@csus.edu](mailto:geology@csus.edu))
  - b. Expanded statement of interest
  - c. Unofficial copies of all collegiate transcripts
3. If you are interested in pursuing the thesis option (all students enter the Program on the non-thesis track) it is recommended that you contact potential faculty early and begin a dialogue about possible thesis options.

### B. Students with Post Baccalaureate Status

Students who have been accepted to the university but not to the Graduate Program in Geology must apply directly to the Department of Geology for admission to the Graduate Program as described in Section I.A.2 above.

**Note:** *Students who have submitted official transcripts to the Department of Geology within two years of first acceptance into the university do not have to submit transcripts again, except for transcripts showing coursework taken at other academic institutions during this period. Students must meet the same application deadlines as new applicants (i.e., Section I.A).*

## C. Students Who Require Readmission

Classified graduate students must maintain continuous enrollment in order to remain matriculated in the graduate program; a classified graduate student may be absent for one semester and still maintain continuous enrollment. Students not maintaining continuous enrollment lose classified graduate standing and will therefore be required to apply for readmission following the same procedure and meeting the same deadlines as new applicants (see Section I.A.1).

Students who have been advanced to candidacy and who have completed all coursework can maintain continuous enrollment and the required active degree program status without additional University registration by paying a 'Continuous Enrollment' fee. Refer to the Office of Graduate Studies website for more information at: <http://www.csus.edu/gradstudies/currentstudents/continuousenrollment.html>

## II. Department Requirements for Admission

### A. Admission with Graduate “Classified” Status

Admission to the Department's graduate program with “Classified” status (full graduate standing; no deficiencies) requires completion of all of the following at the time of admission:

1. a baccalaureate degree;
2. a major in Geology; OR 24 units of upper division geology courses each of which must be passed with a “C-” or better;
3. a cumulative GPA of 2.70 or better in all Geology courses AND a cumulative GPA of 3.0 or better in upper division Geology courses;
4. a cumulative GPA of 2.70 or better in all Chemistry, Physics and Math courses;
5. three letters of recommendation from persons qualified to judge the applicant’s potential for successful graduate study; and
6. a statement of interest, including faculty sponsorship (if pursuing the thesis option) and long term goals;
7. Two semesters of inorganic chemistry with a lab (CHEM 001A and CHEM 001B or equivalent);
8. Two semesters of physics with a lab (PHYS 011A and PHYS 011B or PHYS 005A and PHYS 005B or equivalent)
9. Two semesters of math (MATH 030 and MATH 031 or equivalent)

Meeting all admission requirements is no guarantee of acceptance into the graduate program. Students who have deficiencies in admission requirements that can be removed by specified additional preparation may be admitted with Conditionally Classified graduate status. Admission as a Conditionally Classified graduate student does not guarantee full Classified graduate standing. Fully Classified graduate status is only conferred when all deficiencies identified at the time of admission have been removed. Any deficiencies in admission requirements will be noted on the applicant’s admission recommendation.

It is important to note that a faculty member is under no obligation to accept a graduate student into their research program (i.e., serve as their Graduate Advisor). Indeed, it is the student’s responsibility to obtain the agreement of a Geology faculty member to serve as their Graduate Advisor.

### B. Admission with Graduate “Conditionally Classified” Status

Conditionally Classified graduate standing applies to students who are accepted into the program but who have deficiency in upper division required Geology or related coursework.

An applicant who will qualify for Classified status upon successful completion of her/his final semester/quarter in an undergraduate program will be given Conditionally Classified status at the time of admission. A student who is given Conditionally Classified status has all the rights, privileges, and responsibilities of a student who is given Classified status.

A student who is given Conditionally Classified status simply has minor deficiencies in her/his coursework or other admission requirements; *these must be removed by the end of their **second semester** in the Geology graduate program (i.e., beginning from the time they enrolled in their first graduate course).*

Once a student is given Conditionally Classified status, she/he must receive overall grades of B- or better in all courses taken to remove coursework deficiencies; otherwise, the course must be repeated.

Units taken to make up deficiencies identified at the time of admission cannot be used to meet requirements for the Master's degree.

Once a Conditionally Classified student has fulfilled her/his deficiencies, she/he must submit a Classification Application form to the Graduate Coordinator and attach appropriate evidence showing that the conditions have been met (e.g., transcripts, letter from Graduate Advisor). This form is available online from the Office of Graduate Studies website at: [http://www.csus.edu/gradstudies/forms/candidacy\\_formspetitions/classification%20application.pdf](http://www.csus.edu/gradstudies/forms/candidacy_formspetitions/classification%20application.pdf).

All conditions of admission must be satisfied before a graduate student can be fully classified in the Geology program and advance to candidacy for their degree.

### **C. Denial of Admission to the Graduate Program**

Even if a student has met all of the department's admission requirements, admission to the program is not guaranteed.

Admission to the Department's Graduate Program in Geology is automatically denied if any of the following requirements are not met:

1. a baccalaureate degree;
2. at least 18 units of upper division courses in Geology; or
3. a minimum GPA of 2.5 in the last 60 semester units (or 90 quarter units) of coursework (University admission requirement).

## **III. Financial Aid and Employment**

### **A. Scholarships, Grants, and Loans**

Eligible students may receive financial aid in the form of:

1. scholarships, which are awarded on the basis of academic achievement and do not have to be repaid;
2. grants, which are awarded on the basis of financial need and do not have to be repaid; and/or
3. loans, which are awarded on the basis of financial need but must be repaid.

Students who are interested in applying for financial aid should consult with the Sacramento State Financial Aid Office in Lassen Hall.

### **B. California State Graduate Fellowships**

Information and application forms for California State Graduate Fellowships are available from the Office of Graduate Studies ([www.csus.edu/gradstudies](http://www.csus.edu/gradstudies)).

### **C. Graduate Research Assistantships**

Individual faculty in the Department of Geology sometimes have job opportunities and/or research funds available to support graduate students. Students interested in graduate research assistantships should engage in conversation with faculty to determine what's available.

### D. Graduate Teaching Assistantships

Occasional graduate teaching assistantships are available to select students each fall. Teaching assistantships generally are for one to two semesters.

### E. Funds for Thesis Research

Currently, the department is unable to provide funds to support graduate student research for their thesis. However, financial support may be available through the student's Graduate Advisor or by acquiring external grants. Students are encouraged to inquire about such opportunities for funding with their Graduate Advisor.

## IV. Degree Information and Requirements

The Geology Master's degree requires completion of 30 units of course work with a minimum 3.0 GPA. The 30 units must include a minimum of 24 units of graduate coursework. No units from GEOL 100, GEOL 102, GEOL 103, GEOL 110 A and B or GEOL 111 A or B may be counted toward the Master's degree. No more than 6 units of GEOL 500 (MS thesis) may be applied toward the 30 unit requirement. Additional requirements are outlined below.

### A. University Requirements

1. A minimum of thirty (30) units of academic credit is required for a Master's degree.
2. Units taken to remove admission deficiencies of any type, such as deficiencies in courses or GPA, cannot be used to meet requirements for the Master's degree.
3. Up to six (6) units taken while in Post Baccalaureate Unclassified status (i.e., Open University) with a B or better are permitted by University policy to count toward requirements for a Master's degree.
4. A minimum of twenty one (21) units must be earned in residence at Sacramento State.
5. A minimum of twenty (20) units must be earned in the major field (Geology).
6. Classified or conditionally classified graduate students must maintain a cumulative and semester grade point average (GPA) of at least 3.0 to remain in good standing. A semester GPA of less than 3.0 will result in Academic Warning. If while on Academic Warning a student earns a semester GPA of less than 3.0, the student will be subject to Academic Dismissal (or Disqualification).
7. The University's No "C" grade policy:  
Effective Fall 2012, for Master's classified graduate, certificate or unclassified student, no courses with a grade below a "B" (3.0 grade points per unit) may be credited toward fulfillment of the requirements for a master's degree or certificate unless expressly permitted by a campus-approved graduate programs' written policies

### B. Department Requirements for the Master of Science (MS) Degree

The Master of Science (MS) degree program emphasizes advanced training and research in Geology and prepares students for careers in which an advanced study or research experience is required. The MS degree combines advanced coursework (30 units) in Geology with either a written **thesis**, which is based on original research and makes a new contribution to the field of geology or successful passing of

the comprehensive exam.

The following requirements must be fulfilled by all students seeking an MS degree in Geology (additional requirements for thesis and non-thesis options are given below):

#### *Course Requirements*

1. Thirty (30) units of academic credit are required for the MS degree in Geology. The thirty (30) units of academic credit that are used to meet degree requirements must include the following graduate core courses (9 units total):
  - GEOL 200 Graduate Research Methods Seminar
  - GEOL 275 Quantitative and Numerical Research Methods
  - GEOL 290 Regional Geology of the Western United States
2. Lower division units may not be used to meet requirements for a Master's degree; however, up to 6 units of upper division undergraduate courses may be used to meet degree requirements with advisor permission.
3. The thirty (30) units of academic credit that are used to meet degree requirements must include a minimum of twenty four (24) units graduate coursework.
4. No more than six (6) units of GEOL 299 may be used to meet the degree requirement of 30 units of academic credit.
5. Units for GEOL 299 may not be used to meet the University's requirement of a minimum of eighteen (18) units of 200-level (i.e., graduate) courses.
6. Units from GEOL 100, 102, 103, 110a & b, 111a & b may not be used to meet degree requirements.
7. Students must maintain a GPA of 3.0 or better in the Program.
8. Courses from supporting fields and at other academic institutions can only be approved at Advancement to Candidacy (i.e., by the student's Graduate Advisor) or by petition to the Graduate Committee after Advancement to Candidacy has occurred. Examples of supporting fields are: Anthropology, Chemistry, Environmental Studies, Engineering, Mathematics, and Physics.

#### **Thesis Option**

In addition to all course requirements listed above in section IV B, the following requirements must be fulfilled by all students seeking an MS degree (thesis option) in Geology:

#### *Thesis course Requirements*

1. The 30 units of academic credit that are used to meet degree requirements must include six (6) and only six units of GEOL 500. This course is taken during the semester in which the student is completing their written thesis.

#### *Thesis Research*

Each student who pursues the MS with thesis option in the Department of Geology must submit a thesis based on original research in geology. A thesis can be based on either of the following sources of data:

- data generated by the student's original research in which the student performs the fieldwork or laboratory experiments; or
- data obtained from sources other than the student's own fieldwork or laboratory experiments, provided the data are analyzed in a manner in which they were not previously analyzed.

The use of data must result in an original contribution to the problem being investigated.

#### *Thesis Seminar Requirement*



Each student who pursues the MS with thesis option in Geology must give an oral presentation (thesis seminar) of her/his thesis prior to receiving the degree. See Section X for information on the thesis seminar.

#### *Time Limit Requirement*

All requirements for the Master's degree must be completed within seven (7) years, starting from the time the first course is used to meet the Master's degree requirements.

### **Non-thesis Option**

The MS non-thesis option emphasizes advanced training in Geology and the ability to apply the scientific process to geological problems and combines advanced coursework (30 units) with a comprehensive final exam (GEOL 596).

In addition to all course requirements listed above in section IV B, the following requirements must be fulfilled by all students seeking an MS degree (non-thesis option) in Geology:

#### *Non-thesis course Requirements*

1. The 30 units of academic credit that are used to meet degree requirements must include the GEOL 596 (Comprehensive Exam). This course is taken during the semester in which the student is completing her/his final course requirements for the MS degree.

#### *Time Limit Requirement*

All requirements for the Master's degree must be completed within seven (7) years starting from the time the first course is used to meet the Master's degree requirements.

## **V. Advising**

### **A. Graduate Advisor**

1. The term "Graduate Advisor" is the term used by the Department of Geology to identify the Department of Geology faculty member who has agreed to supervise the student's transit through the graduate program and guide the student in developing their thesis (if pursuing the thesis option). This term will be used in this document. Equivalent terms used by the Office of Graduate Studies and elsewhere are "Major Professor", "Faculty Advisor", "Thesis Advisor", and "Thesis Committee Chair".
2. The student's Graduate Advisor must be a full-time, tenured or tenure-track faculty member at CSU Sacramento.
3. Faculty members in the Department of Geology are automatically eligible to serve as Graduate Advisor. Faculty outside the Department of Geology must first be approved by the Graduate Committee in order to serve as Graduate Advisor. Outside faculty members must be approved separately for each committee on which they intend to serve as Graduate Advisor.
4. Students in the MS degree program should choose their own Graduate Advisor. However, acceptance by a Graduate Advisor is not automatic; a faculty member is under no obligation to accept or mentor a student. Faculty members may not have time to supervise more graduate students..
5. Students pursuing the non-thesis option can either choose their own graduate advisor or by default, be advised by the graduate coordinator.
6. The Graduate Advisor for MS thesis students is the primary person who advises the student in selecting the course of study and supervises the thesis work. The Graduate Advisor also a) requests the scheduling of the Advancement to Candidacy meeting; b) requests the scheduling of the Thesis Seminar; c) supervises the writing of the thesis; and d) performs other duties as

described by Department of Geology and Office of Graduate Studies policy.

7. The Graduate Advisor normally works closely with her/his graduate student, instructing them in the methods and techniques inherent to each area of research and geological literature. Each student should maintain close and regular communication with her/his Graduate Advisor during her/his entire graduate program through individual consultations and/or group meetings with other members of the student's supervisory committee or faculty member's research group.
8. The student may change her/his Graduate Advisor by completing a *Graduate Advisor Declaration* form. After advancing to candidacy, however, changing Graduate Advisors is discouraged except under extenuating circumstances.

**Note:** See Appendix A for a list of faculty in Geology who have expressed a willingness to serve as Graduate Advisors and a list of their research interests.

## B. Thesis Committee

*Students in the MS thesis option degree program*

1. The student's Thesis Committee consists of the student's Graduate Advisor and two other tenured or tenure-track faculty, except as noted under paragraph B – 3 below. The student's Graduate Advisor will chair the student's Thesis Committee.
2. At least two members of the Thesis Committee must be faculty in the Department of Geology.
3. The third member may be an individual who holds an earned doctorate in Geology or a related field and who is not a tenured or tenure-track faculty member in the Department of Geology at CSU Sacramento. Part-time and adjunct faculty members may serve in this capacity, as well as faculty from other academic departments and research scientists at government agencies and private institutions.
4. The student and her/his Graduate Advisor should jointly select the two additional members to serve on the student's Thesis Committee prior to Advancement to Candidacy.

*Additional Information*

1. Faculty members participating in FERP (Faculty Early Retirement Program) may serve as a member of the student's Supervisory Committee, but they may not serve as Graduate Advisor.
2. The Thesis Committee aids the Graduate Advisor in directing the thesis work of the student. More specifically, the Thesis Committee reviews and offers suggestions on thesis research work as designed by the student and her/his Graduate Advisor. The Thesis Committee evaluates and approves the student's Advancement to Candidacy, thesis seminar, and thesis, and performs other duties as described by the Department of Geology and the Office of Graduate Studies

## VI. Advancement to Candidacy for the Master's Degree

The Advancement to Candidacy process serves to ensure that a student is qualified for and making good progress toward successfully completing the Master's degree. It also provides the student's Thesis Committee an opportunity to provide timely feedback to the student regarding the scientific merit, feasibility, and scope of the proposed thesis research. Hence, it is important that Advancement to Candidacy for the Master's degree occurs early in a student's graduate program.

Advancement to Candidacy should take place following preliminary work intended to form the student's research study (thesis track) or when the student has successfully completed 12 units of graduate work (non-thesis track). In the case of the thesis track, the preliminary work should demonstrate that the research approach and proposed methods are appropriate and feasible.

Until the student has advanced to candidacy, there is no assurance that any courses other than *approved graduate program courses* in Geology, or any other research or project, may be used to

meet degree requirements.

## A. Purpose of Advancement

1. Advancement to Candidacy gives the student official recognition as a candidate for the Master's degree.
2. Advancement to Candidacy gives official approval of the student's progress in the graduate program and proposed thesis research (if thesis track).
3. Approval of program progress and thesis proposal (if thesis track) constitutes an agreement between the student and the Department of Geology.
4. Advancement to Candidacy verifies to the Office of Graduate Studies that the student is receiving proper advising and supervision, and that graduate policies and standards are being met by the student and the Department of Geology.

## B. Eligibility for Advancement

To be eligible for Advancement to Candidacy, the student must have:

1. Made up all deficiencies identified at the time of admission prior to being Advanced to Candidacy; that is, the student must have *fully* Classified Graduate Status. If the student is Conditionally Classified and has removed all deficiencies, he/she must submit to the Graduate Secretary a *Classification Application* form, which is available from the Office of Graduate Studies website at:  
[http://www.csus.edu/gradstudies/dev/gradstudiesnew/forms/candidacy\\_formspetitions/classification%20application.pdf](http://www.csus.edu/gradstudies/dev/gradstudiesnew/forms/candidacy_formspetitions/classification%20application.pdf)
2. Completed at least 12 units in the Geology graduate program by the end of the semester in which they advance to candidacy.
3. Satisfied the Graduate Writing Assessment Requirement (GWAR). The means by which a student can meet the GWAR can be found on the Graduate Studies GWAR website:  
<http://www.csus.edu/gwar/graduate-level/graduate.html>

## C. Deadlines for Advancement

1. Requests for scheduling the Advancement to Candidacy meeting may be submitted to the Graduate Coordinator any time during the semester up to four weeks prior to the beginning of final examinations week.
2. The Advancement to Candidacy meeting must occur prior to the beginning of final examinations week.
3. At least one week prior to the Advancement to Candidacy meeting, the student must submit to the Graduate Coordinator one copy each of:
  - the *Application for Advancement to Candidacy* form that has been completely and properly filled out;  
([http://www.csus.edu/gradstudies/forms/candidacy\\_formspetitions/advancement\\_candidacy.pdf](http://www.csus.edu/gradstudies/forms/candidacy_formspetitions/advancement_candidacy.pdf))
  - Thesis Research proposal (if thesis track); and
  - an *approved "Checklist and Signature Page for Geology 500 Petition for Master's Thesis Research Project"* form (if thesis track).  
(<http://www.csus.edu/geology/graduate%20program/forms/ms%20thesis%20track%20guidelines.pdf>).

4. The *Application for Advancement to Candidacy* form is available from the Office of Graduate Studies website or the Department of Geology office (PLR 2003).
5. Failure to meet these deadlines will result in a delay of advancement until the following semester. Advancement meetings are not held during the summer or during the interval between fall and spring semesters.
6. The student is responsible for duplicating and distributing copies of the *Application for Advancement to Candidacy* form, the description of the proposed thesis research (if thesis track), and the *Checklist and Signature Page for Geology 500 (if thesis track)* to the Graduate Coordinator.

## D. Scheduling the Advancement to Candidacy Meeting

1. All Advancement to Candidacy meetings must be held on the Sacramento State campus.
2. At the request of the Graduate Advisor and her/his Graduate Students the Graduate Coordinator will schedule the Advancement to Candidacy meeting.
  - a. Scheduling of the Advancement to Candidacy meeting for all eligible students will be determined by the Academic Coordinator of the program.
  - b. The Advancement to Candidacy meeting for these students will be held in a single session on the same day.

## E. Documents to be presented at the Advancement to Candidacy Meeting

The following documents must be presented at the Advancement to Candidacy meeting:

1. A completed *Application for Advancement to Candidacy* form for the Master's degree (see Section VI.C above for deadline information). The Graduate Coordinator will provide this form for review at the Advancement to Candidacy meeting.
2. A Thesis Research proposal (if thesis track).

### *Distribution of Documents*

It is the responsibility of the Graduate Coordinator to duplicate and distribute copies of the *Application for Advancement to Candidacy* form and the *Thesis Proposal form* to the Graduate Committee. It is the student's responsibility to distribute the Thesis Proposal or Project Proposal to the Graduate Coordinator.

### *Thesis Research Proposal: MS (thesis track) Degree Program*

Prior to the Advancement to Candidacy meeting, the student must prepare a written description of the proposed thesis research (Thesis Proposal). The Thesis Proposal must emphasize and have as its focus, a clear statement of the subject being investigated and the manner in which the topic will be researched. The thesis proposal must contain at least three sections: *Introduction*, *Hypotheses and Objectives*, and *Methods* and address the following criteria:

- Purpose or project description - Outline the detailed objectives of the study and explain why these are necessary to address the research question(s). State the nature of the problem or study to be undertaken. Why is the project necessary or important?
- Background - Describe the current state of scientific knowledge about this issue. This should include citations of important work in the field.
- Study area where applicable - Describe the geologic, hydrologic and/or physiographic setting for the proposed project. Include a location map if appropriate.
- Equipment and methods - Describe the techniques or methodologies that will be used to generate and analyze the data necessary to study the problem. What data will be collected and

how will these data lead to a better understanding of the issues? If physical samples are necessary how will they be collected and processed?

- Timetable for completion of the project - Outline a schedule of activities (with a timeline) that shows when data will be collected, analyzed and assembled into a thesis. Include realistic estimates of field and lab time and the time it will take to write the final thesis. Propose a budget and possible funding sources.
- References – Include a list of references that were used in the proposal. Use a reference formatting style that is appropriate to the discipline.
- Thesis advisor - This faculty member will determine (in consultation with the student) how often the student and advisor will meet, deadlines for preliminary reports or phases of the project will be required, and when the project (or phases of the project) will be completed. Agreed-upon deadlines should be written into the thesis proposal.
- Names of 2 additional faculty readers.

*Note: The thesis research proposal is similar in format to the first two parts of a thesis. However, the proposal should not be written in the detail required in a thesis. Therefore, it is strongly recommended that thesis proposals be no more than 8-10 double-spaced text pages in length.*

## F. The Advancement to Candidacy Meeting

1. The Advancement to Candidacy meeting is attended by the Graduate Coordinator, Graduate Advisor (if thesis track) and at least one other member of the Graduate Committee.
2. The Advancement meeting is conducted by the Graduate Coordinator.
3. The Advancement meetings are closed meetings.
4. If a student is not Advanced to Candidacy, she/he must be informed about what must be done to remedy her/his deficiencies before the Advancement to Candidacy meeting is adjourned.

## G. Approval of Advancement to Candidacy

1. Advancement to Candidacy requires the approval of at least two members of the Graduate Committee if three attended the Advancement to Candidacy meeting, or approval by one member of the Graduate Committee if two or fewer members attended the Advancement to Candidacy meeting.
2. If the student has been asked to make changes in any of the Advancement to Candidacy documents, she/he must submit the revised and approved documents to the Graduate Coordinator before being approved by the Graduate Coordinator. Upon approval by the Graduate Coordinator, the *Application for Advancement to Candidacy* form is then submitted to the Office of Graduate Studies for final approval.
3. Once submitted, the student's Advancement to Candidacy application must be approved by the Dean of the Office of Graduate Studies before the student is officially Advanced to Candidacy.

## H. Filing the Advancement to Candidacy Documents

1. The completed *Application for Advancement to Candidacy* form must be signed by the student, the student's Graduate Advisor, and the Graduate Coordinator. The Graduate Coordinator will forward the form to the Dean of Graduate Studies for their approval or disapproval.
2. Following the Advancement to Candidacy meeting, the student's final approved thesis or project

proposal and abstract will be placed in the student's file in the Department Office.

3. The Graduate Coordinator will place the department's *Approval of Advancement to Candidacy* form in the student's file following the Advancement to Candidacy meeting. The form bears the signatures of all members of the Supervisory and Graduate Committee members who attended the Advancement to Candidacy meeting.

## I. Changes in the Student's Graduate Program

After the student has advanced to candidacy, a change of Graduate Advisor or a significant change in the thesis research, or project requires a hearing by the Graduate Committee.

Minor changes in the thesis research or project may occur. Such minor changes do not require formal approval by anyone. However, it is advised that the student discuss minor changes and obtain informal approval from their Graduate Advisor.

## VII. Retention in the Graduate Program

### A. Change in Graduate Status from "Conditionally Classified" to "Classified".

1. A student who receives Conditionally Classified status must make up deficiencies identified at the time of admission within two semesters of entering (enrolling in courses) the Geology program or they will be removed (declassified) from the Department's graduate program.
2. Upon making up deficiencies, the student must complete a *Classification Application* form, which is available through the Office of Graduate Studies website at: [www.csus.edu/gradstudies/forms/index.html](http://www.csus.edu/gradstudies/forms/index.html)
3. The student must submit documentation with the *Classification Application* form demonstrating that the deficiencies have been removed. For coursework deficiencies made up at Sacramento State, no transcripts must be submitted. However, for coursework deficiencies that are not made up at Sacramento State, the student must provide the Graduate Coordinator with official transcripts.
4. The Graduate Coordinator is responsible for notifying the Office of Graduate Studies (by submitting to Graduate Studies the *Classification Application* form) that the student has made up her/his academic deficiencies and for requesting that the student receive Graduate Classified status.

### B. Registration Requirements

1. A student who does not enroll for one semester is granted an automatic leave of absence with no penalty. The student does not need to file any form or petition to receive this leave of absence. The student maintains her/his classification status, their catalog rights, and is exempt from re-application fees.
2. Classified graduate students who do not maintain continuous enrollment (an absence for two or more semesters) must apply for readmission following the same procedure and meeting the same deadlines as new applicants (see Section I.A)
3. A student who has completed all of her/his coursework must maintain continuous enrollment in the program. Continuous enrollment can be maintained by enrolling in unit-earning courses (regular courses) or by enrolling in Continuous Enrollment through the Office of Graduate Studies, which does not earn course units. As long as the student is within the seven-year time limit, Continuous Enrollment may be taken at a reduced tuition rate for up to 3 semesters after the completion of all coursework; after this time, the student must begin the continuous enrollment cycle again and re-enroll in GEOL 500 or GEOL 596 at the regular tuition rate.

A student who does not finish their thesis within four semesters of enrolling in the thesis (GEOL 500)

units will receive a grade of "NC" for these units and will be required to re-enroll for the thesis units.

## C. Maintenance of Grade Point Average

### GOOD STANDING

Classified and conditionally classified students whose Sacramento State semester and cumulative grade point average (GPA) is 3.0 or above are considered in good academic standing.

Furthermore, a minimum course grade of "B-" in all core courses (GEOL-200, GEOL-275 and GEOL-290) is required. Core courses with a "C+" grade or lower must be repeated, can only be repeated once, and a grade of "B-" or higher must be achieved to remain in the program. (OGS policy)

### ACADEMIC PROBATION

Students whose Sacramento State semester grade point average or cumulative grade point average falls below 3.00 will be placed on academic probation. Students on probation are eligible to enroll in the subsequent semester.

### CONTINUED PROBATION

Students on probation will be placed on Continued Probation if they earn a 3.00 GPA in the current semester, but have a cumulative GPA below 3.00.

Students placed on Continued Probation will be limited to a maximum course load of 9 units per semester until they return to academic good standing.

### ACADEMIC DISQUALIFICATION

If a graduate student is on academic probation and the Sacramento State (semester) or cumulative grade point average is below 3.0 for the active term, the student will be academically disqualified.

Students not on probation will be disqualified if the Sacramento State (semester) or cumulative GPA is 2.000 or less. Disqualified students will not be allowed to register unless they are formally reinstated and/or readmitted to the University.

More details on Disqualification and Reinstatement options are available on the Office of Graduate Studies website - <http://www.csus.edu/gradstudies/currentstudents/gparequirements.html>

## D. Time Limit for Advancement to Candidacy

A student should be Advanced to Candidacy for the Master's degree within four semesters of entering the Department of Geology' graduate program.

## E. Time Limit for the Geology Master's Degree

Master's degree requirements must be completed within seven (7) years starting from the time the first course is used to meet the Master's degree requirements. No extensions of the seven-year time limit will be granted; students who fail to complete all degree requirements within a seven-year period will have their graduate programs automatically terminated. Students who have had their graduate programs terminated because they have reached the seven-year limit will not be readmitted to the graduate program of the Department of Geology.

## F. Address on File in the Department of Geology Office

A student should inform the Department of Geology of any change in address and email so that the Department can inform students of meetings, deadlines, etc., that are relevant to the student's successful completion of the graduate program.

## G. Leaves of Absence

A leave of absence is granted for military, medical, and certain educational reasons. The student must apply for a leave of absence using a *Leave of Absence Request* form, which is available from the Office of

Graduate Studies website at <http://www.csus.edu/gradstudies/forms/index.html> The student should be aware that a leave of absence does not change the seven-year time limit for completion of the Master's degree.



## VIII. Exceptions to Policies and Procedures

### A. The Office of Graduate Studies Exceptions to Policies and Procedures

1. Exceptions to the Graduate Studies Policies and Procedures must be approved by the Dean of Graduate Studies.
2. To request an Office of Graduate Studies Exception to Policies and Procedures, a student must obtain a *Petition for Exception* form, available on the Office of Graduate Studies website at <http://www.csus.edu/gradstudies/forms/index.html>. After completing the form, the student must obtain the signatures of her/his Graduate Advisor and the Graduate Coordinator indicating their approval or denial. The student is responsible for returning the form to the Office of Graduate Studies for the Director's approval or denial.
3. The Office of Graduate Studies will inform the student and the Department of Geology of the Director's decision.

### B. The Department of Geology Exceptions to Policies and Procedures

1. The Graduate Committee has been authorized by the Department of Geology to grant exceptions to departmental graduate policies and procedures. The *Petition for Exception* form is available online at <http://www.csus.edu/gradstudies/forms/index.html> or at the counter of the Office of Graduate Studies. The student should also have the graduate advisor sign the request to indicate their approval. It is highly unlikely that the Graduate Committee will grant an exception without the knowledge and approval of the student's graduate advisor.
2. A Petition for Exception must include a statement outlining why the student is unable or does not wish to follow the regular policy or procedure. This statement must be in written form, preferably typed, and must be signed by the student.
3. A Petition for Exception and accompanying statement is presented by the student to the Graduate Coordinator. The Graduate Coordinator is responsible for taking the request to the Graduate Committee and for notifying the student of their decision.
4. Department policies and requirements that are initiated after a student has already been Advanced to Candidacy do not apply to that student.

### C. Appeal of Graduate Committee's Decisions and Actions

The Department of Geology Executive Committee is responsible for hearing appeals of the Graduate Committee's decisions. The student should ask the Department of Geology Chair about appeal procedures.

## IX. Thesis

### A. Nature of the Thesis

1. The California Code of Regulations: Title 5 Education, Section 40510 defines a thesis as:  
*the written product of a systematic study of a significant problem. It identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources*

*for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished project [product] evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation.*

2. The thesis must be based on research that was approved when the student was Advanced to Candidacy for the Master's degree.
3. The thesis must have the organization and format described in the Sacramento State Guide for Thesis Format. Copies of this guide are available online from the Office of Graduate Studies (<http://www.csus.edu/gradstudies/forms/index.html#Thesis>) and in the Hornet Bookstore.
4. For organization and format guidelines not provided by the Sacramento State Guide for Thesis Format, use the most recent edition of *Form and Style: Research Papers, Reports, and Theses* by Carole Slade. Copies of this manual are available in the Hornet Bookstore and/or the Sacramento State Library.

## B. Deadlines for Submitting the Thesis

1. Preliminary drafts of the thesis/project should be reviewed by the student's Graduate Advisor and revised by the student before an acceptable first draft of the thesis/project is distributed to the other members of the student's Thesis Committee.
2. An acceptable draft of the thesis or project must be presented to each member of the Thesis Committee with sufficient time to permit the members to read and provide constructive feedback on the thesis/project and allow the student to incorporate suggested changes into the final draft. Sufficient time is understood to be at least four weeks prior to the deadline for submitting the thesis/project to the Office of Graduate Studies.
3. The final copy of the thesis or project must be presented to members of the Thesis Committee for their approval no later than two weeks prior to the deadline for submitting the thesis/project to the Office of Graduate Studies.
4. Once approved by the student's thesis committee, the thesis must be submitted to the Graduate Coordinator for formatting review no later than one week prior to the Office of Graduate Studies deadline for submission of the thesis/project.
5. Since the deadline for filing the final copy of the thesis/project varies, the student should obtain the exact date from the Office of Graduate Studies website (<http://www.csus.edu/gradstudies/currentstudents/thesis-project-dissertation/submission-and-deadlines.html>) early in the semester in which she/he plans to graduate.

## C. Approval of the Thesis/Project

1. The thesis or project must be approved by all members of the Thesis Committee (i.e., Readers).
2. The Chair of the Department of Geology may sign for an absent member of the Thesis Committee if they have been designated as a proxy in writing by the absent member.
3. Prior to submitting the thesis/project to the Graduate Advisor for formatting approval, the student is required to attend a Thesis/Project Formatting Workshop offered by the Office of Graduate Studies. Information about registering for these formatting workshops is available through the Office of Graduate Studies website at <http://www.csus.edu/gradstudies/currentstudents/thesis-project-dissertation/formattingworkshops.html>
4. The Graduate Advisor examines the thesis or project for proper organization and format after

it has been approved by the Thesis Committee. The organization and format of the final copy of the thesis or project must be approved and signed by the Graduate Advisor. *Note:* The Chair of the Department of Geology or the Graduate Coordinator may approve and sign the thesis or project if the Graduate Advisor is not available to serve in this role.

5. Once the thesis/project has been approved by the Graduate Advisor, the student submits her/his thesis or project to the Office of Graduate Studies for final approval and filing.

## D. Submission of the Final Copy of the Thesis

1. The Office of Graduate Studies requires one copy of the thesis or project, plus additional copies of specific pages.
2. The Department of Geology requires an electronic, PDF version of the approved thesis/project, and one bound copy of the final, approved thesis/project. An inexpensive binding such as Velo Binding is adequate, though a more durable binding is encouraged. The front cover should bear a label on which the title, author, and date are typed. This copy should be submitted to the Graduate Coordinator as soon as possible after acceptance of the thesis by the Office of Graduate Studies and prior to graduation.
3. The Graduate Coordinator is responsible for depositing the thesis in the Department of Geology thesis library.

## X. Thesis Seminar

Each student who pursues the MS with thesis option in Geology must give an oral presentation (thesis seminar) of her/his thesis prior to receiving the degree.

### A. Eligibility for Scheduling the Thesis Seminar

The thesis seminar may be given prior to turning in the thesis. However, the seminar may not be given until a first draft of the thesis or project has been completed and approved by the student's Thesis Committee. This means that all research must be finished and all sections of the thesis or project must be in written form. It is the responsibility of the student's Graduate Advisor to verify that a first draft of the thesis or project has been satisfactorily completed. Depending on the quality of the thesis at the time of the seminar, additional changes to the thesis/project may be requested by the student's Thesis Committee at the seminar.

### B. Deadlines for the Thesis/Project Seminar

1. A request to schedule the thesis seminar may be made any time during the semester up to four weeks prior to the beginning of final examinations week, and must be presented no later than one week prior to the posted Office of Graduate Studies deadline for submission of the thesis.
2. The seminar may not be given during the summer or during the interval between the fall and spring semesters. A student who plans to complete their thesis or project during the summer must present the seminar during the preceding semester.

### C. Scheduling the Thesis Seminar

1. Once a student is ready to present her/his thesis seminar, the student's Graduate Advisor requests the Graduate Coordinator to schedule the seminar. The request is submitted to the Graduate Coordinator using the *Request for Scheduling the Thesis/Project Seminar* form, which is available from the Department of Geology website <http://www.csus.edu/geology/graduate%20program/important%20forms.html> or in the Department of Geology office (PLR 2003).
2. It is the responsibility of the Graduate Coordinator to schedule the seminar.

3. The seminar must be scheduled at a time that is acceptable to the student and the members of the Thesis Committee and Graduate Committee. The seminar must be given on the Sacramento State campus.
4. Before the student's Graduate Advisor can schedule the seminar, the Graduate Advisor must submit the names of the members of the Thesis Committee and a list of several possible seminar presentation times to the Graduate Coordinator.
5. It is the responsibility of the Graduate Coordinator to inform the student and the members of the Graduate Committee, of the time and location of the seminar.

#### **D. Presenting the Thesis Seminar**

1. The thesis seminar must be attended by;
  - a. The Graduate Advisor;
  - b. The two other thesis committee members
2. The Chair of the Department of Geology may serve in place of one absent member of the Thesis Committee or Graduate Committee.
3. The seminar is advertised and open to the public; it may be attended by anyone who wishes to attend.
4. During the first part of the seminar, the student orally presents the content of her/his thesis. This usually takes 30 to 40 minutes.
5. The seminar must be based on the thesis and must be representative of the general nature of the thesis. However, the student is not expected, nor should she/he attempt, to present all the detail normally found in the written thesis. Detailed descriptions of techniques should be avoided. Minor portions of the thesis may be omitted from the presentation for the sake of clarity and brevity.
6. It is strongly recommended that the student rehearse the seminar with her/his Graduate Advisor. It is highly unlikely that the other members of the Graduate Committee will find the seminar acceptable if the Graduate Advisor does not.
7. Once the student has orally presented the seminar, the student is expected to answer questions on the thesis. This portion of the thesis seminar usually lasts 20 to 30 minutes. Anyone in the audience may ask questions. *Note:* members of the Thesis Committee may not prompt the student or correct the student's responses to questions asked during the questions and answer period.
8. Following the question and answer period, the Committees will leave the room. The committees will then grade the student's seminar as "acceptable" or "unacceptable" (see Section X.E. for approval policy). Upon return of the Committees, the student will be informed of the Committees' decision.
9. If a student's seminar is deemed unacceptable, she/he will be informed before the seminar meeting is adjourned. The members of the Thesis Committee who deemed the student's seminar as unacceptable are responsible for informing the student of her/his deficiencies and what she/he must do to present an acceptable seminar (see Section X.E. for approval policy).
10. Before the thesis seminar meeting is adjourned, the student may be asked by their Thesis Committee to make changes to the written thesis or project. Any changes requested by the student's Thesis Committee must be made before the written thesis or project is approved (see Section IX.D. for approval policy)

#### **E. Evaluation and Approval of the Thesis/Project Seminar**

1. Approval of the thesis seminar is evaluated based on:

- a. Successful completion of the thesis, as stated in the abstract of the proposed Thesis;
  - b. Effectiveness and organization of the presentation;
  - c. Appropriate explanation of methods, results, and interpretation;
  - d. Articulation of the broader significance of the work and its relationship to the pertinent literature in the field; and
  - e. Ability to effectively respond to questions from the audience.
2. The thesis seminar is graded as "acceptable" or "unacceptable." The Graduate Coordinator provides an *Approval of the Thesis/Project Seminar* form to provide a record of this action.
  3. The thesis seminar must be graded as "acceptable" by at least two members of the Thesis Committee and by at least two members of the Graduate Committee in order for the student to pass the seminar requirement.
  4. If a student does not pass the seminar requirement the first time, a second presentation is permitted. The procedure for scheduling the second seminar is the same as for the first.
  5. If the second seminar is deemed "not acceptable", the student will be permanently removed (disqualified) from the Department of Geology' graduate program.
  6. The *Approval of the Thesis/Project Seminar* form, which bears the signatures of all members of the Thesis and Graduate Committees who had attended the seminar along with their approval or disapproval notation regarding the student's thesis seminar, is placed in the student's departmental file by the Graduate Coordinator.

### Non-Thesis Option and Comprehensive Exam

1. Students seeking an MA degree in Geology are required to enroll in GEOL 596, a pass-fail course with zero units, and pass a comprehensive exit exam.
2. A passing grade in GEOL 596 indicates that the student took and passed the exit exam. Students have two opportunities take and pass the exam. Students who fail to pass the exit exam on their first attempt shall receive a grade of "incomplete" (I) with a contract specifying when they are required to retake the exam. When the exam administered for a second attempt it may consist of similar or different questions than those on the exam that the student failed.
3. Students will normally take the exit exam in the semester in which they expect to graduate.
4. Prior to scheduling the exam with the Graduate Coordinator, students will bring an outline of all graduate courses they have taken that will count towards the degree. Exam questions will be culled from all graduate (and elective) courses a student has taken to fulfill the graduate requirements in the program.
5. The exit exam shall consist of not fewer than eight questions, from which the student shall choose five questions to answer. The exam shall be a take-home exam and students shall have three full days to complete it. The time and date that the completed exam is due shall be communicated in writing to the students.
6. The administration of the exam shall be conducted by the department graduate coordinator. The dates on which the exam is given will be determined by the graduate coordinator following conversation and negotiation with individual examinees. The graduate coordinator will make a reasonable effort to have all examinees in a given semester take the exam at the same time, but the faculty recognizes that simultaneous examinations may not be possible in all cases.
7. Questions for the exit exams can be submitted by any department faculty members who choose to do so. Part-time faculty may submit questions provided they taught graduate-level courses during the time that an examinee was enrolled in the graduate program. Questions will reflect the breadth of courses a student has taken in the graduate program
8. Faculty members shall independently grade the questions they submit. The grading for each question shall be on a scale of one (1) to ten (10) with a score of six (6) or higher indicating a passing grade. A passing grade on the exit exam (and hence in GEOL 596) shall require that a student receives a passing score on 5 questions *or* a total score of at least 40.

9. If the graduate coordinator believes that the grading of one or more questions is inconsistent with the grading of the test as a whole, he or she may confer with faculty members to discuss revising the grading of the relevant questions, although the ultimate score on a question shall be determined by the faculty member who submitted that question.
10. The graduate coordinator shall compile graded questions, report the outcome to the students, and submit the grades for GEOL 596.
11. All graded questions and faculty comments shall be available to the students.
12. The student may appeal the grade on the exit exam (*i.e.*, the grade in GEOL 596) using the university course grade appeal process.

## XI. Graduation Procedures

1. Students must enroll in GEOL 500 or GEOL 596 in the semester in which they anticipate graduating. If the student does not complete their degree requirements in the semester in which they enroll in GEOL 500 or GEOL 596, then they must maintain continuous enrollment until completion of their degree requirements, as described in Section VII.B.2.
2. Submit a completed *Application for Graduation with a Master's Degree* form by the stated deadline for the semester in which you plan to complete degree requirements. The application form can be obtained from the Office of Graduate Studies or online at <http://www.csus.edu/gradstudies/dev/gradstudiesnew/forms/index.html#Graduation>
3. Pay the graduation/diploma fee in the Student Financial Services Center (Lassen Hall). A receipt number will be stamped on your *Application for Graduation with a Master's Degree* form.
4. File a completed *Application for Graduation with a Master's Degree* form in the Office of Graduate Studies prior to the appropriate deadline. The deadline for submission of this form is posted on the Office of Graduate Studies website at [http://www.csus.edu/gradstudies/dev/gradstudiesnew/forms/graduation\\_diploma\\_forms/graduation\\_application.pdf](http://www.csus.edu/gradstudies/dev/gradstudiesnew/forms/graduation_diploma_forms/graduation_application.pdf).
5. Inquire at the Associated Students Office (located in the Sacramento State Union) about the dates and fees designated for graduating students to be measured for caps, gowns, and hoods.

File the following items prior to the appropriate Thesis deadline:

1. One approved copy of the Thesis on 8½ x 11" 24 lb 100 % cotton white paper, including a single blank sheet for both the front and back of the Thesis or Project;
2. One additional signed copy of each of the following Thesis or Project signature pages on regular or cotton paper: Format Approval page, Thesis Approval page, and Abstract;
3. Three copies of *Thesis/Project Receipt* form (available in the Office of Graduate Studies or online at [http://www.csus.edu/gradstudies/dev/gradstudiesnew/forms/thesis\\_project\\_forms/thesisprojectdiSSERT\\_receipt\\_form.pdf](http://www.csus.edu/gradstudies/dev/gradstudiesnew/forms/thesis_project_forms/thesisprojectdiSSERT_receipt_form.pdf))
4. One paid *Microfilming and Binding Receipt* (available in the Office of Graduate Studies or online at: [http://www.csus.edu/gradstudies/forms/thesis\\_project\\_forms/micro\\_binding\\_receipt.pdf](http://www.csus.edu/gradstudies/forms/thesis_project_forms/micro_binding_receipt.pdf))
5. File one inexpensively bound copy of the thesis/project (regular paper ok) with the Graduate Coordinator and submit an electronic, PDF version, for deposit in the Department of Geology thesis library;
6. In accordance with academic etiquette and tradition, the student should give a bound final copy of the thesis to her/his Graduate Advisor; and

7. Students are encouraged to attend and participate in Commencement.

## XII. Appendix A - Faculty Research Interests

The following faculty members in the Department of Geology have expressed their interest to serve as Graduate Advisors. Faculty and their areas of specialization are listed below.

<b>Kevin Cornwell</b>	Hydrology and sedimentation in mountain meadows, surface and groundwater hydrology, erosion, deposition and landscape processes
<b>Dave Evans</b>	Modeling hydrology of complex aquifers, modeling groundwater flow in coastal environments, Borehole geophysics in fractured-rock aquifers
<b>Lisa Hammersley</b>	Igneous petrology; isotope geochemistry; magma chamber processes, magma mixing at Chaos Crags, Lassen Volcanic National Park, CA; subduction processes in the Mexican Volcanic Belt.
<b>Brian Hausback</b>	Eruptive history of Sutter Buttes volcano, remote sensing of Mammoth Mountain gas emissions, Volcanic hazards at Isla San Luis and La Reforma caldera, Baja California, Mexico.
<b>Tim Horner</b>	Groundwater flow and sampling, Groundwater-surface water interactions, Hydrogeology of salmon spawning habitats, Cenozoic history of the Central Valley, California.
<b>Amelia Vankeuren</b>	Groundwater quality, the water-energy nexus, geological carbon dioxide capture and storage, mineral carbonation (turning carbon dioxide gas into rocks for permanent storage), impact of hydraulic fracturing (fracking) for oil and gas on groundwater
<b>David Shimabukuro</b>	Tectonics and structure of Circum-Mediterranean and Cordilleran orogenic belts, high-pressure metamorphism, and the interaction between wastewater injection and groundwater in California.
<b>Steve Skinner</b>	Tectonic applications of paleomagnetism and magnetic susceptibility, dynamics of flat slab subduction zones, and plate reconstructions.
<b>Amy Wagner</b>	