# Graduate Student Handbook Department of Geological Sciences California State University, Fullerton

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# **Department Information**

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http://www.fullerton.edu/geology

# **University Graduate Office**

Graduate Studies Office, CP-950 (657) 278-2618 http://www.fullerton.edu/graduate/

# Roadmap to the MS Degree

The chart below shows the sequence of events that should ordinarily be followed by all MS students. All students should also consult the checklist for graduate students in the University Catalog (reproduced on the following page). Note that part time graduate students should follow the same sequence, but may take longer than 4 semesters to complete all requirements.

Prior to 1 <sup>st</sup>	Meet or chat via phone with the Graduate Advisor OR Thesis Advisor for initial advisement. During this advisement, the overall requirements for the MS degree will be reviewed, and your first semester class schedule will be determined. You should also contact faculty members whose research interests overlap with your interests.
1 <sup>st</sup>	Meet with various faculty members to discuss potential thesis projects. By the end of the first semester, you should select a Faculty Advisor who will guide you through the remainder of the program. Often, you will enter the program with a known thesis advisor determined during the application process.
1 <sup>st</sup> or 2 <sup>nd</sup>	Submit study plan prior to completing more than 13 units of graduate level coursework (including any transferred units or units take prior to admission). Note that the study plan must be completed within a 5-year period following admission, or completion of the first class shown on your study plan if you enter the program with some units competed.
1 <sup>st</sup> or 2 <sup>nd</sup>	A <i>Thesis Committee</i> should be formally established prior to writing a thesis proposal and at the time the study plan is submitted.
2 <sup>nd</sup>	Write Thesis Proposal – must be filed before registering for more than 2 units of GEOL 598.
Summer and 3 <sup>rd</sup>	Conduct research and collect and analyze data.
3 <sup>rd</sup>	Apply for graduation. Check with the Office of Graduate Studies for deadline, fees, and application form.
3 <sup>rd</sup> and 4 <sup>th</sup>	Write thesis. Follow the departmental and University guidelines for theses. Complete all coursework as indicated on the study plan.
4 <sup>th</sup>	Prepare for Thesis Defense. Submit an acceptable draft thesis to your thesis committee members at least 4 weeks before your defense and 8 weeks before the last day of classes.
4 <sup>th</sup>	Schedule your Thesis Defense. A Thesis Defense Scheduling Form must be filed at least one week before the date of the defense.
4 <sup>th</sup>	Complete Thesis Defense. Committee approves thesis by signing cover page and Thesis Defense Recommendation.
4 <sup>th</sup>	Submit final copies of thesis – see current class schedule for deadline dates. Copies of the thesis must be submitted to the library, Department of Geological Sciences, and your Faculty Advisor. The University's Thesis Manual (available from the Grad Studies Office) provides further guidelines.

# **Thesis Completion Time Limit**

All requirements for the master's degree, including all course work on the student's study plan, normally should be completed within five years. This time limit begins with the semester of the earliest course used on the student's study plan and consists of a total of ten (10) consecutive semesters. When individual circumstances warrant, this time limit may be extended for up to two years (four additional consecutive semesters).

A student may request an extension of the five-year time limit by filing a petition with the Graduate Studies Office. The petition must contain a full explanation of the circumstances that prevented completion of the degree requirements within the normal five-year limit and must be approved (signed) by the graduate program adviser, the chair of the appropriate graduate committee and the director of Graduate Studies. Approvals for extension must be obtained prior to the expiration of the five-year limit. The Time Limit Extension Petition

#### **Outdated Courses**

Outdated course work (course work older than the student's approved time limit; i.e., five or seven years) should be repeated. However, a maximum of nine (9) units of course work may be exempt from repetition if course content can be validated. Validation is allowed at the discretion of the graduate program adviser, the academic unit offering the subject course, and the associate vice president. Copies of the "Petition for Validating Outdated Course Work" may be obtained from the Graduate Studies Office or Online.

Validation must be accomplished by passing a written comprehensive test of the materials covered by the course being validated or by some equivalent method with prior approval of both the graduate program adviser and the associate vice president, Academic Programs. Courses completed more than ten years prior to completion of requirements for the degree are not eligible for validation. Any outdated course work that cannot be validated either because of a denial of the petition or because it is in excess of the nine units allowed for validation, must be repeated or updated through enrollment in additional Study Plan course work. If course work is repeated or additional course work is required to update, those units and grades will be added to the Study Plan.

Outdated transfer course work cannot be validated.

# The Study Plan and TDA

The study plan is an informal plan of study.

Your Faculty Advisor will guide you through the process of developing your study plan, formulating a thesis topic and proposal, undertaking all thesis-related research, and writing your thesis.

Progress toward your degree can be tracked through your TDA (Titan Degree Audit)



- + Helps keep track of a student's academic progress toward completion of a declared major or program.
- + Shows completed coursework at CSUF, transfer courses (for undergraduates), & courses in progress.
- + Shows what requirements have been met and remaining requirements needed to complete a degree.

See Web Tutorial: <a href="https://www.fullerton.edu/ittraining/peoplesoft/student/tutorials/TDA/">https://www.fullerton.edu/ittraining/peoplesoft/student/tutorials/TDA/</a>
Note: It is available for graduate students (tutorials says it is in prep).

# **General Requirements**

General requirements for a GEOL master's degrees include the following:

- 1. A minimum of 30 approved semester units.
- 2. At least 21 semester units must be taken in residence. For programs requiring 42 or more units, at least half the units must be taken in residence. Transfer credits and Cal State Fullerton extension credits are not residence units.
- 3. Only 400- or 500-level courses may be used on graduate Study Plans. A graduate student enrolled in a 400-level course will be required to complete additional assignments as determined by the instructor. University policy does not allow 300-level courses on graduate study plans.
- 4. Normally 70 percent of all study plan courses will be at the 500-level. However, with prior approval, upon the recommendation of the Graduate Education Committee, programs may permit students to include up to 50 percent of course work at the 400-level.
- 5. No more than nine units of post baccalaureate work taken at Cal State Fullerton prior to admission to an approved graduate program.
- 6. No more than six semester units for a thesis, if a thesis is required.
- 7. Maximum of six units of independent study (3 each from 593 and 599).
- 8. No courses taken to satisfy prerequisite requirements.
- 9. None of the following: correspondence courses, credit by examination, or similar.

- 10. No courses with nontraditional grades (e.g., CR, S, P).
- 11. Each course on the study plan must be completed with a grade of "C" (2.0) or better.
- 12. A minimum grade-point average of 3.0 ("B") in all courses attempted to satisfy requirements for the degree.
- 13. Completion of all study plan courses within five years or seven years with approved extension. The time limit starts with the earliest course on the study plan.
- 14. All courses taken after the baccalaureate (or post baccalaureate credit granted).
- 15. No courses credited toward another degree.
- 16. A final evaluation, which may be a thesis, a project, a comprehensive examination, or any combination of these.

Student must maintain continuous enrollment in regular semesters at the university; otherwise it is necessary to reapply and meet any changed or additional requirements approved in the interim.

# **Course Requirements**

# Master's of Science in Geology Curriculum

The following goals and learning outcomes have been established for students pursuing a Master's degree in geological sciences:

Advanced knowledge of Earth Science skills, concepts, and processes

- Compile, analyze, assess, and interpret published research relevant to graduate-level research in the Earth sciences
- Create and implement an experimental design to solve a research problem in the Earth sciences and interpret data collected through these experiments

Conduct original scientific research

- Design a research plan to solve fundamental scientific problems in the Earth sciences and formulate this plan in a clearly expressed written research proposal
- Prepare written and oral presentations that clearly express the results of their research plan, including a clear statement of hypothesis and research methods, summary and interpretation of data, and critical evaluation of the hypothesis

An MS curriculum must contain a minimum of 30 units and be approved by the Graduate Advisor. At least 21 units must be at the graduate level; a maximum of 9 units may be 400 level. A minimum grade-point average for courses satisfying the study plan is 3.0. The study plan must consist of:

#### **Required core Courses** (5 units)

- GEOL 500 Advanced Concepts in Geology (3)
- GEOL 590 Graduate Seminar (1,1) must be taken twice for 1 unit each time

**Focus Courses** (18-21 units)

Adviser-approved 400- or 500-level geology courses. Up to a maximum of 6 units may be approved 400- or 500-level courses taken in related-field departments. A maximum of 3 units of Geol 599 (Independent Study) and a maximum of 3 units of 593 (directed study) may be taken. Course selection will be dependent on student's academic objectives, and selected in consultation with the student's thesis advisor.

**Thesis** (3- 6 units – includes oral defense)

GEOL 598 Thesis (3-6)

# **Department Continuous Enrollment Requirement**

A graduate degree student is required to maintain continuous enrollment in every fall and spring semester from the beginning of the program of study until award of the degree. This policy is designed to eliminate the need for readmission to the university, provide opportunity for continuous use of facilities, including the library, and assure the development of an integrated program, which is adequately supervised and effectively completed within the time limitations allowed by regulations.

Unless granted an approved leave of absence, a graduate student who fails to register each semester has discontinued enrollment in the graduate degree program. In order to resume study, the student needs to reapply for admission to the university and to the degree program and meet any changed or additional requirements approved in the interim.

Students who may have completed all course work, but who may not have satisfactorily completed a comprehensive examination or other requirement, are expected to maintain continuous enrollment until award of the degree.

A graduate student who finds it impossible to attend during a certain semester and is not eligible for a leave of absence must register in Graduate Studies 700 (GRAD 700). Registration in this course is restricted to conditionally classified or classified graduate students. It carries no unit credit and does not require class attendance. Registration in this course in each semester when no other course work is taken will be necessary until award of the degree

# **Graduate Enrollment Policies**

## Residence Requirement

A student is considered to be in residence when registered during regular semesters at this University. At least 21 semester units or half the units required by the master's program, whichever is larger, must be taken in residence at this University. The Ed.D. program requires a minimum 48 units for residency. Approved units earned in summer sessions may be used to meet regular semester unit requirements on a course by course basis. Extension credit may not be used to fulfill the minimum residence requirement.

#### **Continuous Enrollment**

A graduate degree student is required to maintain continuous enrollment in every fall and spring semester, if a master's or D.N.P student, or every fall, spring and summer, if an Ed.D. student from

the beginning of the program of study until award of the degree. This policy is designed to eliminate the need for readmission to the University, provide opportunity for continuous use of facilities, including the library, and assure the development of an integrated program, which is adequately supervised and effectively completed within the time limitations allowed by regulations.

Unless granted an approved leave of absence, a graduate student who fails to register each semester has discontinued enrollment in the graduate degree program. In order to resume study, the student needs to reapply for admission to the University and to the degree program and meet any changed or additional requirements approved in the interim.

Students who may have completed all coursework, but who may not have satisfactorily completed a comprehensive examination or other requirement, are expected to maintain continuous enrollment until award of the degree.

A master's student who finds it impossible to attend during a certain semester and is not eligible for a leave of absence must register in Graduate Studies 700. A master's student near the end of the degree program may be eligible to enroll in Graduate Studies 700 (called GRAD 700 or GS 700) via University Extended Education. Registration in this course is restricted to conditionally classified or classified graduate students. It carries no unit credit. Registration in this course in each semester when no other coursework is taken will be necessary until award of the degree.

Similarly, Credential Studies 701 is available for students with a credential-only objective who find it impossible to enroll in coursework and are not eligible for a leave of absence.

#### Leave of Absence

Graduate degree or credential students may request a leave of absence for up to one year, though a leave of absence is not normally granted for more than one semester. Conditionally classified or classified graduate students qualify for a leave if they are in good academic standing and have completed at least six units (if a master's student) or eight units (if a doctoral student) of work toward the degree in residence at Cal State Fullerton. Students with a credential-only objective qualify if they have completed at least one semester of coursework in good academic standing. Forms to request a leave of absence are available at the Graduate Studies Office and on the Graduate Studies Office website. Students are encouraged to submit requests for leave of absence prior to the start of the semester for which they are requesting a leave.

Any one of the following circumstances may be grounds for requesting a leave of absence:

- 1. illness or disability (permanent or temporary) or similar personal exigencies including pregnancy which make it impossible or inadvisable for a student to register for classes.
- 2. activities that enhance a student's professional career objectives.
- 3. active duty in the armed forces of the United States;
- 4. severe financial hardship; or
- 5. other reasons at the discretion of the associate vice president, Academic Programs.

After review by the Graduate Studies Office, the academic unit (where applicable), and the Registrar's Office, a response is mailed to the student.

A first-time leave of absence of one semester only will normally be granted upon request for students who qualify and will not require an application for readmission to the University. Registration for the semester following the leave will be available to the student.

Students requesting a subsequent leave or a leave longer than one semester are required to provide appropriate substantial documentation (e.g., doctor's recommendation, verification of employment). Such requests must also be endorsed by the graduate program adviser.

A leave granted to a degree objective student preserves the election of curriculum rights regarding catalog requirements. However, leaves of absence do not change the time limit for completion of the degree. For credential students, a leave granted by the University does not exempt them from new requirements imposed by the State regardless of the catalog year and also does not extend time limitations imposed by the State for completing specific teaching credential requirements.

#### **Enrollment in 500-Level Courses by Seniors**

Undergraduate students may enroll in graduate level courses (500-level) if they:

- 1. have reached senior status (i.e., completed a minimum of 90 semester units);
- 2. have the academic preparation and prerequisites required for entry into the course; and
- 3. gain the consent of the instructor.

Students wishing to use 500-level coursework taken during their undergraduate degree toward a master's degree should read the following section on Postgraduate Credit.

# **Postgraduate Credit**

A master's student may petition for a maximum of nine units of postgraduate credit for coursework (either 400 or 500 level) taken during the undergraduate degree at California State University, Fullerton, if:

- 1. the coursework was not used to meet any of the University's requirements for the baccalaureate degree (including major, minor or concentration);
- 2. the coursework was taken during the twelve months immediately prior to the student's graduation; and
- 3. each course was completed with a grade of "B" (3.0) or better.

Petition forms are available at the Admissions and Records Service Center. If approved, appropriate notations will be entered on the student's transcript.

The use of postgraduate coursework on a student's graduate Study Plan is governed by the general regulations for all graduate degrees and must be approved by the graduate program adviser, the appropriate graduate committee, and the associate vice president, Academic Programs (or designee).

## **Transfer Credit Policy**

Graduate students may request to apply a limited amount of transfer coursework towards unit requirements for a graduate degree. The use of transfer coursework on a student's Study Plan is subject to the following provisions.

- 1. Each course being transferred must:
  - a. have been taken at an accredited college or university;
  - b. be acceptable for credit toward a graduate degree at the institution where the coursework was taken; in the case of transfer work for the Ed.D. and D.N.P., the course must be acceptable for doctoral credit at the institution where it was taken;
  - c. have been completed with a grade of "B" (3.0) or better;
  - d. not have been used in meeting the requirements for another earned degree (either graduate or undergraduate); and
  - e. have been completed within the student's five-year time period which is required for completion of the requirements for the graduate degree at CSUF.
- 2. For the master's degree, an absolute minimum of 21 semester units or half the units required by the program, whichever is larger, must be taken in residence at this University. A minimum of 42 units must be taken in residence for the Ed.D. program. A minimum of 24 units must be taken in residence for the D.N.P. Residence units are granted for courses taken at the University during regular sessions of fall and spring and any special session;
- 3. use of transfer work on a student's Study Plan is subject to all other policies concerning Study Plan coursework;
- 4. in all cases, the use of transfer coursework on a student's Study Plan is subject to the acceptance and approval of the academic unit's graduate program adviser and the associate vice president, Academic Programs (or designee). Coursework taken at another institution after admission to CSUF as a graduate student is rarely accepted for credit toward a graduate degree and can only be accepted if the student has received prior approval of both the graduate program adviser and the associate vice president, Academic Programs (or designee);
- 5. all approved transfer units and grade points will be entered on the CSUF transcript at classification or graduation; and a unit of coursework taken at a college or university on the quarter system will be considered as equivalent to two-thirds of a unit when such coursework is considered acceptable as transfer work.

# **Maintenance of Good Standing**

To continue to be in good standing a graduate student must:

Requirements to be in compliance with the "Graduate Academic Standards" listed in the University Catalog are listed below:

#### **GRADE POINT AVERAGE REQUIREMENTS**

A grade-point average (grade points divided by units attempted) of at least **3.0** is required for graduation with a master's degree. This grade-point average applies to:

- All 400- and 500-level units attempted subsequent to admission to a degree program and
- All units required on the student's graduate Study Plan including transfer courses. Each course on the Study Plan must be completed with a grade of "C" (2.0) or better.

A degree student may request a change in the Study Plan in order to raise the Study Plan grade-point average by:

- Adding no more than six units of approved course work, or
- Repeating no more than six units of course work in which a "C" (2.0) or lower was earned, or
- A combination of 1, and 2, not to exceed six units.

Requests to add courses to the Study Plan, repeat courses, or add courses to raise the overall grade-point average, must be approved by the graduate program adviser and the Associate Vice President, Academic Programs (or designee) prior to registration.

When a course is added or repeated, the original course remains on the Study Plan and on the student's transcript and both grades are used in calculating the student's grade-point average. A grade-point average of at least 2.5 is required for continuing status as a credential, certificate or undeclared postbaccalaureate student.

#### REPEATED COURSES

If a grade less than "C" (2.0) is received in a Study Plan course, the course must be repeated and passed with a grade of "C" (2.0) or better. A course may be repeated only once. If a course is repeated, both grades are included when computing the student's Study Plan and cumulative Cal State Fullerton grade-point average. Repetition of a course carries no additional unit credit toward the degree; however, the additional units are included in the cumulative units shown on the Cal State Fullerton transcript.

In extenuating circumstances, the student may petition the associate vice president, Academic Programs (or designee) to add another course to the approved program with the unit value equivalent to that of the course in which the unsatisfactory grade was received.

Successful repetition of a course originally passed carries no additional unit credit toward a degree.

## PROBATION AND DISQUALIFICATION

#### **PROBATION**

A graduate student enrolled in a graduate degree program will be placed on academic probation if either the cumulative or the Study Plan grade-point average falls below 3.0. A graduate student may also be placed on probation for reasons other than cumulative and/or Study Plan grade-point average. This is known as **administrative-academic probation**. The reasons for this may include repeated withdrawal, failure to progress toward an educational objective, non-compliance with an academic requirement, failure to demonstrate a level of professional competence or fitness commensurate with the standards of the student's discipline, or inappropriate behavior as defined in the Student Bill of Rights and Responsibilities, and in the Academic Dishonesty sections of this catalog (see "University Regulations").

Master's degree students will be allowed two semesters on academic probation before being subject to disqualification. Ed.D students may not have a grade point average below 3.0 in two successive terms. The Ed.D student will be placed on probation the first term in which their grade point average drops below 3.0; a grade point average below 3.0 in the next term is grounds for disqualification from

the Ed.D program. Students will remain on administrative-academic probation contingent upon conditions required for their continuing in the program. The Graduate Studies Office maintains a list of students on probation and subject to disqualification.

Click on the link to watch a tutorial What To Do When On Probation.

#### **DISQUALIFICATION**

The associate vice president, Academic Programs (or designee), in consultation with the student's graduate program adviser, will disqualify a graduate student who is on probation if the student does not, or cannot, raise the Study Plan and cumulative grade-point average to 3.0 by the completion of the second regular semester following the semester in which the grade-point average fell below the minimum 3.0 standard. If a student's grade-point average becomes so low that it cannot be raised to 3.0 within the prescribed limits of course work, the student will be disqualified from the master's degree program.

Students placed on probation for reasons other than grade-point average will be disqualified if:

- The conditions for removal of administrative-academic probation are not met within the period specified.
- The student becomes subject to academic probation while on administrative-academic probation.
- The student is removed from administrative-academic probation and subsequently becomes subject to administrative-academic probation for the same or similar reasons as originally placed on probation.

Disqualification removes a student from graduate standing and prevents further enrollment in university courses (except through University Extended Education). A student who has been disqualified from a master's degree program may not apply for readmission to that program. However, a student who has been disqualified from one degree program may apply for readmission to a different degree program. A readmitted student must file a new Study Plan that meets current requirements and policies. Any disqualified student who wishes to use previous course work must have it approved by the associate vice president, Academic Programs (or designee). Appeals related to graduate degree probation or disqualification should first be directed to the departmental graduate program adviser. Please contact the Graduate Studies Office for further information and procedures.

# PROBATION AND DISQUALIFICATION FOR CREDENTIAL, UNCLASSIFIED OR UNDECLARED POSTBACCALAUREATE STUDENTS

A postbaccalaureate student (credential, unclassified or undeclared status) will be subject to academic probation if after completing 12 or more units, the cumulative grade point average falls below a 2.5 average. A postbaccalaureate student (i.e., credential or certificate objective) on probation will be subject to disqualification if the cumulative grade-point average is not raised to 2.5 the semester after being placed on probation.

# GRAD-700 Enrollment Policy DEPARTMENT OF GEOLOGICAL SCIENCES

http://www.fullerton.edu/graduate/currentstudents/graduateforms.php

Graduate students must maintain continuous enrollment during their tenure in the Master's program at CSU Fullerton. This requirement means that once a student is admitted to the Geology Department's graduate program, he/she cannot drop out for a semester without officially obtaining a leave of absence from the University. Students enroll through regular university registration procedures and pay listed graduate student fees while completing courses required for the study plan and while working on and completing their thesis.

#### **GRAD-700**

A student may elect to enroll in GRAD-700 through regular registration or through Extended Education when he/she is in the very final stages of producing his/her written thesis. This procedure allows the student to maintain continuous enrollment while completing the final phases of our graduate program. If enrollment in GRAD-700 is through regular university registration procedures, the student will pay full fees and receive all student benefits. If enrollment, however, is through Extended Education, the student will pay a reduced fee and receive no university benefits other than library privileges. The principal advantage of enrolling in GRAD-700 is financial because enrollment costs are less than those required for regular university registration. This Extended Education route is the most common form of GRAD-700 enrollment by Geology graduate students.

#### **Considerations for Enrolling in GRAD-700**

Enrollment in GRAD-700, however, is not automatic and requires both departmental and university approval. Moreover, enrollment in GRAD-700 through Extended Education assumes that the student is no longer a user of departmental and university resources, including supplies, equipment, and services. THIS MEANS THAT GRADUATE STUDENTS ENROLLED IN GRAD-700 THROUGH EXTENDED EDUCATION ARE NOT ELIGIBLE TO RECEIVE DEPARTMENTAL SUPPORT FOR SUPPLIES, MATERIALS, AND SERVICES.

#### **Conditions for GRAD-700 Enrollment**

Students are expected to understand fully the conditions required for GRAD-700 enrollment before submitting the form for departmental approval. For students enrolling in GRAD-700 through Extended Education, the student should consult the enrollment request form to determine if he/she is eligible. To be eligible for GRAD-700 (through either regular university registration procedures or Extended Education), the following conditions must be met to obtain departmental approval.

- 1) **Study Plan**. Students must have received credit for all coursework required for the study plan. This means that letter grades must have been received for all courses except GEOL 598 and 599, for which RP grades may have been assigned. Incomplete grades given for courses listed on the study plan should be completed *before* enrolling in GRAD-700.
- 2) **Laboratory and Field Work**. All thesis laboratory or field work must be completed (i.e., the student is not collecting data in the lab or field in support of his/her thesis research).
- 3) **Use of Facilities**. Access to departmental or university services and facilities (e.g., computers, laboratory equipment, field gear) is not required other than the use of library (including electronic) resources.
- 4) **Adviser Assistance**. Assistance from the student's thesis adviser and committee members has been reduced to levels required to produce the final version of the written thesis.

Enrollment in GRAD-700 through Extended Education *must be renewed each semester*. No formal approval is required for enrollment in GRAD-700 through regular university procedures (i.e., with full fee payment).

# **Your Thesis**

# **Faculty Advisor and Thesis Committee**

During your first semester in our graduate program, you should select your Faculty Advisor (many students have already selected an advisor at the time they are admitted). Once you have a Faculty Advisor and have decided on a general thesis topic, you will need to establish a thesis committee with at least three members.

Your Thesis Committee must consist of at least three members (including your advisor) who should be chosen in consultation with your advisor. Both your faculty advisor and one additional committee member must be from the Department of Geological Sciences. A third member of the committee may be from another related department at CSUF. If you desire, a qualified person who is not a CSUF faculty member may serve as a Visiting Examiner on you Thesis Committee. This person will count as a fourth committee member.

The committee should ideally be viewed as an additional resource during the conduct of your research. Committee members are often chosen to provide expertise that complements yourself and your advisor. Committee members should be kept apprised of the status of your research, through either informal one-on-one discussions or formal meetings of your entire thesis committee. Your Thesis Committee will serve as the examiners during your Thesis Defense. Ultimately, they are the ones who determine whether your research is worthy of a Masters Degree, so it is in your best interest to keep them informed on your degree progress.

The committee is responsible for approving your proposal by completing a Thesis Committee Approval Form. This form must be completed prior to registering for your third unit of GEOL 598. Once you have completed the form and obtained signatures from each committee member including your Faculty Advisor, submit this form to the Geological Sciences department office. Any subsequent changes to your committee must be made by filing a new Thesis Committee Form, and checking the "Change to Existing Committee" box.

# Thesis Proposal

A well-conceived and designed proposal is a critical prerequisite to a successful research project. The proposal should describe in a clear fashion the nature of the problem to be addressed and how the scientific method will be used to answer the research questions. A good proposal is a sort of roadmap that describes how you are going to complete your project. A good proposal should also convince the reader that this research is important, and worthy of support (both financially and morally). Assume the reader of the proposal will be professional geoscientists who may not have expertise in your research area.

Each proposal will be different, but all proposals should contain the following information (even if organized differently than below).

#### Title Page

The first page of the proposal should be a cover page that contains the title of your project, your name, the name of your advisor or advisors, and the date.

#### Abstract

This should be a 250 word maximum statement of your project, including all the important content from the proposal. Someone should be able to grasp in a general way the nature of your proposal from this abstract. Write this LAST, after you have completed your proposal.

#### Introduction

Some proposals may have separate "Introduction" and "Previous Work" sections, whereas others may combine the two into a longer introductory section. How you organize yours will depend mostly on the nature of your project. In this section you should clearly state the scientific question being considered in your research and the hypotheses you will be testing. You should also discuss the possible outcomes of you research and how they might support/refute your hypotheses. Depending on the type of research you are doing, you might include something about the geographic area you will be working, and the significance of your research to the broader geoscience community.

#### Previous Work/Background

This section may include a more expanded discussion of the nature of the problem, and it should contain a review of any previous work that is specifically relevant to your project. Unresolved questions that may be answered by your work should be highlighted here. Again, in some cases this information may be included in a longer introduction. This section is important because it will demonstrate that you have done the background literature reading necessary to begin your research. If your research will be done in a particular geographic area, you may want to include a subsection on "geologic setting" or "tectonic setting" or something similar.

#### Proposal (Work Plan and Methodology)

This section is the real "nuts-and-bolts" part of your proposal. Here you describe as clearly as you can exactly what you plan to do, and how this work will help to answer the research questions. Try to be as specific about your plan as possible. (e.g., How much field work and when? How many thin sections? What kinds of analyses? How many analyses? How many streams to sample?, etc.). Also include a specific list and description of the deliverables (e.g. data sets, maps, etc.) that your research will generate.

#### Proposed Budget

The budget should be on a separate page. Include here estimates of the costs of all components of your project (field work, thin sections, maps, analyses, mileage, expendable supplies, film, lodging, etc.). Your advisor may help you with this section. You should also indicate the proposed source(s) of funds (if any).

#### Timeline

In this section, indicate, using a calendar format, or table the detailed timeline for completion of your project. Do not include any times in the past (the proposal should be done before any parts of the project!)! This timeline will show the reader that you have thought through the actual "doing" of this project, and you have estimated that you will be able to complete this project in a timely manner.

#### References

You must list all references cited in your proposal. Your proposal should cite all the sources from the literature that are relevant to your project. This list should include publications from peer-reviewed scientific journals. A short reference list is a sign of a poorly researched project. Use the format of the GSA Bulletin when you cite and list references (available at http://www.geosociety.org/pubs/0208bulguid.pdf), or use another similar guide that your advisor may

#### **Figures**

suggest.

Figures are an essential component of all proposals. All figures should be of the highest quality possible, and must include a caption. Simply Xeroxing a figure from some other publication usually is not appropriate. Figures adapted from other sources must include a reference to that source. Smaller figures may be placed floating within the text, but large figures should be placed on their own page within or at the end of the text.

#### **Format**

The final proposal must be typed, double-spaced, and paginated. Use a 1" margin everywhere. Use a 10-12 point font. Section headings, as outlined above, must be present. Some guidelines concerning length: as long as it needs to be, but no longer! Five pages is probably too short, more than 15 pages probably is too long.

# **Thesis Guidelines**

The Master's Thesis constitutes the "final report" of your thesis research. It should be a professionally written and illustrated, fully referenced description of your research.

Your thesis should include:

A clear description of the scientific question being considered, including any relevant background material.

Complete descriptions of the hypotheses being tested by your research.

A complete discussion of any relevant background material such that the non-specialist geoscientist can understand your work.

A complete description of the data you collected during the course of your research, including a description of the methods you used to collect them.

A complete analysis of the data and how it supports or refutes your hypotheses. A description of the relevance of your new data and/or new interpretations to the broader geoscience community.

A complete list of references cited, typed in the appropriate form for your specialty.

In collaboration with your Faculty Advisor and Thesis Committee, you need to decide on the format your thesis will take. You may choose a "traditional" format that includes a multi-chapter document that is typically 40 to 100 pages long. Many students now prefer to prepare their thesis as a publication-ready document that follows the format of an appropriate peer-reviewed scientific

journal. This choice makes it simple to submit your thesis for publication. In either case, *your thesis must conform to the published University Guidelines:*<a href="https://www.fullerton.edu/graduate/academics/thesis.php">https://www.fullerton.edu/graduate/academics/thesis.php</a>

# **MS Thesis Timeline**

Time During Last Semester	Milestone
Week 1 (or before)	Obtain a University Thesis Manual from the Office of Graduate Studies (MH-112)
Weeks 1 - 6	Finish writing thesis. Have your faculty advisor read and edit initial drafts and figures.
Week 7 (8 weeks before last day of classes)	Submit an acceptable draft of the thesis (one that your faculty advisor has read and approved) to your thesis committee. This is usually in <b>EARLY MARCH.</b>
Week 8 - 9	Thesis committee reads thesis and returns it to you for final editing by end of week 9. While your committee reads your thesis, you should prepare the thesis defense talk including appropriate illustrations.
Week 10	Schedule the thesis defense (at least two weeks before the scheduled defense date).
Week 11	Stage your Thesis Defense
Weeks 11 - 12	Final editing of thesis (incorporating any changes suggested during your defense) and preparation of the final draft that is in the proper format outlined in the University Thesis Manual.
Week 12 or 13	Submit thesis to the Office of Graduate Studies for reading by the University Thesis Reader. See important dates at https://www.fullerton.edu/graduate/academics/thesis.php

# **MS** Thesis Defense

The thesis defense is the culmination of your MS program. It consists of a public presentation of the results of your Masters Thesis and is a celebration of all your hard work. The following guidelines must be followed:

The thesis defense should be scheduled only after consultation with your Faculty Advisor and your thesis committee has approved an acceptable draft of the MS thesis.

Ordinarily, an acceptable draft of your thesis (one that has been undergone an initial review by your Faculty Advisor) should be submitted to your Thesis Committee at least 6 weeks prior to the last day of classes of the semester in which you plan to graduate. The committee should read the thesis and return it to you within 2 weeks. Note that if the thesis committee requires substantial changes and/or additions to the thesis, 6 weeks may not be enough time.

All thesis defenses must be scheduled during a regular semester (including finals week). The Graduate Committee must approve exceptions (e.g. summer session defenses) in writing.

The date and time of the thesis defense is determined in consultation with the thesis committee. All efforts should be made to schedule the defense at a time that is convenient for the thesis committee, faculty and students of the department.

No less than 2 weeks before the date of the thesis defense, a Thesis Defense Scheduling Form must be completed and submitted to the Department. The abstract of the thesis must be attached to this form. The Department Secretary will be responsible for distributing and posting flyers advertising the date and time of the defense.

The thesis defense should begin with a 30-50 minute, professionally illustrated, rehearsed presentation of the thesis, and followed by a 10-15 minute question/answer period. This portion of the defense is open to the public.

Following the presentation and public question/answer period, everyone will leave the room except for the student and the thesis committee. Members of the thesis committee will then have the opportunity to ask questions in private. They may also choose to make suggestions for additions/changes to the thesis prior to completing the final draft. The length of this private question and answer period will be determined by the Thesis Committee.

Immediately following the defense, the thesis committee will vote on the outcome of the defense and discuss any final revisions that must be made to the thesis.

The thesis committee will report the outcome of the defense on the Department Thesis Approval Form. In addition, your Faculty advisor should complete the official university Thesis Approval Form available from the Graduate Studies Office.

Should the committee determine that the student has not passed the defense, a new defense may be scheduled no sooner than 6 months from the date of the first defense. A second failure is final.

# **Binding Your Thesis**

The final bound copy of the thesis should be presented to the library before the last day of finals during the semester in which the defense occurred. Note that binding may require a significant amount of time (up to 5 months). It is up to you to plan ahead so that you will have enough time to meet all of the University deadlines!

Bound hard copies and electronic (pdf format) copies of your thesis should also be presented to the Department and Thesis Advisor. Guidelines for preparing the MS Thesis in addition to the department guidelines discussed here can found in the Thesis Manual available from the Office of Graduate Studies. Note: the department copy can be produced on normal/standard paper.

The Department will provide students up to \$100 to help defray the costs of thesis binding, subject to budgetary constraints. This comes with the expectation that hardbound copies will be provided to both the Department and University. To receive this support, you will need to provide the Department Administrative Coordinator with a copy of the **binding order** and your **receipt**. More information is available in the Geology Main Office.

# **Funding Your Thesis**

#### http://www.fullerton.edu/graduate/funding/

The Department of Geological Sciences typically employs several graduate teaching assistants to teach lower division geology laboratories. Research assistantships funded by faculty research grants may also be available. We have a very limited number of non-resident tuition waivers for graduate students from out-of-state. For additional information about financial aid, contact the Office of Financial Aid (University Hall – Room 146) at (714) 278-3125.

# **Teaching Assistants**

Incoming students who are interested in a Teaching Assistantship (TA) should indicate this desire when applying for admission to the Department. The Department only considers TA applications during the application cycle for Fall admission (see the Department Grad Application). Students who apply for aid in this manner will receive their TA offer at the same time as their admission decision.

Although TAs are usually assigned to incoming students, the Department recognizes that existing students (in particular non-traditional students) my wish to teach a limited number of classes in the later stages of their thesis work. For instance, many students near the end of their thesis work develop an interest in teaching at the High School or Community College level. A Teaching Assistantship will often help these students explore this interest.

Any currently-enrolled student interested in an opportunity to teach a class should discuss this with his/her Thesis Advisor. The student, in consultation with his/her Thesis Advisor, should then fill out the departmental form "Departmental Application for T.A. Support for Continuing Master's Degree Students in Geological Sciences" found on the Department of Geological Sciences website. If approved, the Chair will include you in the class scheduling for the following semester.

You should consider submitting grant proposals during your first year as a graduate student at CSUF. Research grants not only can serve as a source of funds for you to conduct your research, but they can also help you focus and sharpen your research goals. Ask your thesis advisor about potential programs.

# **Appendix 1 - Glossary of Terms**

<u>Faculty Advisor</u>: A faculty member of the Department of Geological Sciences who is chosen by the student. The Faculty Advisor supervises the development of the student's study plan, research, and writing and editing of the MS Thesis. The Faculty Advisor also acts as the chair of the student's Thesis Committee.

<u>Thesis Committee</u>: A committee of at least three full-time Faculty members at CSUF, two of which (including the Faculty Advisor) must be from the Department of Geological Sciences. A fourth member of the committee may be a CSUF faculty member, a faculty member from a related department in CSUF, a faculty member from another university, or a professional geologist working in government or industry.

Graduate Advisor: The Geological Sciences faculty member who is chair of the Graduate Committee.

<u>Graduate Committee</u>: A committee of the Department of Geological Sciences that supervises the graduate program in geology (see Thesis Committee).

<u>Deficiencies</u>: Upon admission to our program, the Graduate Committee may determine that a student must complete certain coursework that would ordinarily be require prior to admission. A student may also be admitted with a deficient GPA (either in geology, related fields, or overall. Additional course work (or repeated course work) must be taken in order raise the GPA to the published minimums. Any deficiencies must be complete prior to submitting a study plan (and before completing more than 13 units of graduate course work).

<u>Study Plan</u>: An informal plan that outlines the coursework that will be taken to fulfill the requirements for the MS degree.

# **Appendix 2 – Forms**

# All forms can be found at:

https://www.fullerton.edu/geology/forms/

# **Appendix 3 – Teaching Assistant Evaluation**

Teaching assistantships (TA) at CSUF Geological Sciences are renewable annually. These renewals are based on two main areas: performance as a TA and progress toward the completion of the Master of Science degree (MS). Demand for TA positions is high and thus are not generally extended beyond the two year initial commitment. Thus, the criteria below dominantly apply to the first year of TA appointment. However, these criteria are also used for students applying for a partial TA at any point in their academic career here at CSUF as well.

#### MS Progress and Teaching Sufficiency

To be considered as making satisfactory progress toward the completion of the MS and for the Department to evaluate teaching sufficiency, TAs must submit evidence of having met the requirements below to the Department Chairperson, by the dates indicated. The reason for the two deadlines is that February 15<sup>th</sup> is the application deadline for new graduate students, so determination of the number of continuing TAs is critical at that time. The second date, May 1, begins the last month of the semester. By this date, Student Observation of Quality results (SOQs) are available and the completion of 1<sup>st</sup> year tasks.

Continued on next page.

## Department of Geological Sciences Evaluation of Teaching Associates, Graduate Assistants, and Instructional Student Assistants

SEMESTER						
Name of Assistant	<u> </u>					
Class Visitor	C	COURSE				
Type of Assistant:	Te	Teaching Associate (TA)				
Instructional Student Assistant (ISA)	Gı	Graduate Assistant (GA)				
	Above Satisfactory	Satisfactory	Needs Improvement	Unsatis- factory	Not applicable	
Understanding of course objectives						
Willingness to help students						
Clarity of explanation						
Knowledge of subject						
Was prepared for class and/or field activities						
Enthusiasm						
Dependability (only if you visit more than						
once)						
Initiative						
Maintenance of good working						
conditions in lab						
Professionalism						
Met the expectations of the position						
Class visitor recommends reappointment next	semester/year	?	Yes	No		
Thesis Advisor affirms satisfactory progress to recommend reappointment next semestration.	and	Yes	No			
Grad Committee recommends reappointment	year?	Yes	No			
Suggestions for new assignment:						
Additional comments:						
Department Chair Decision: Rehire		Do Not Rehire	,			
Reason (if not rehire):						