

**Department of Geosciences
Baylor University**

Graduate Program Handbook

2018-2019

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1. INTRODUCTION

This handbook provides a summary of the Department of Geosciences graduate program and its policies for students.

1.1. Contact Information for Offices Relevant to Graduate Program

Departmental contact information

Geosciences has several individuals that are relevant to the graduate program: the Department Chair, the Graduate Program Director, the departmental lab coordinator, and departmental administrators. Below is a list of each individual, his or her contact information and responsibilities.

Department Chair

Stacy Atchley
BSB D409.1
710-2196
stacy_atchley@baylor.edu

Graduate Program Director

Dan Peppe
BSB E427
710-2629
daniel_peppe@baylor.edu

Lab Coordinator

Sharon Browning
BSB E408
710-2159
sharon_browning@baylor.edu

Geosciences Office Staff

BSB D409
710-2361

Office Manager

Paulette Penney
paulette_penney@baylor.edu

Graduate Program Assistant

Jamie Ruth
jamie_ruth@baylor.edu

Administrative Associate

Janelle Atchley
janelle_atchley@baylor.edu

The Department Chair oversees the Department of Geosciences as a whole. If the Graduate Program Director is unavailable, the Department Chair has signatory authority for any documents normally signed by the Graduate Program Director.

The Graduate Program Director (GPD) is the primary contact between graduate students, the Geosciences Department, and the Graduate School. The GPD also oversees the overall graduate program, graduate admissions, graduate research grants, graduate examinations, Thesis/Dissertation Proposals, Thesis/Dissertation Defenses, and works in coordination with the Lab Coordinator to determine teaching-assistantship assignments, as well as with the office staff on disbursement of tuition hours and stipends. Graduate students are encouraged to contact the GPD about any issues related to the graduate program.

The Lab Coordinator works in conjunction with the GPD to determine teaching-assistantship assignments and develop freshman lab exercises, teach some freshman labs, meet regularly with graduate teaching assistants (GTAs) to provide assistance with teaching and with lab activities, and is the point of contact for any specific questions about teaching assignments and GTA teaching.

The Geosciences office staff assists the Department Chair and GPD with issues related to the department and graduate program.

The Office Manager works in conjunction with the GPD on disbursement of tuition hours and stipends, student insurance, degree audits, course petitions, student office assignments, and in conjunction with the Graduate Program Assistant on event space scheduling. Students should contact the Office Manager about questions related to their funding, insurance, tuition, and degree audits or if they wish to reserve space in Geosciences classrooms during normal business hours.

The Graduate Program Assistant assists the GPD with graduate admissions and processes course petitions. The Graduate Program Assistant is also responsible for maintaining office and teaching supplies for the department, maintenance of the department website and calendar, arranging travel for department events, coordinating department special events, and processing travel authorization forms. Students should contact the Graduate Program Assistant for questions about graduate admissions, course petitions to sign up for courses, authorization for travel, departmental events, the department website, and purchasing equipment and office supplies.

The Administrative Assistant is responsible for processing expense reports for purchases related to travel, research, and supplies and assists the GPD with Graduate Research Grants. Students should contact the Administrative Assistant for questions related to expense reports and reimbursements or expenses incurred on a Graduate Research Grant.

Graduate School contact information

There are several offices at Baylor University that can be of assistance to Geosciences graduate students. In addition to these offices, students should also refer to the Baylor University student policies and procedures (http://www.baylor.edu/student_policies/), Baylor University Graduate School policies and programs (<http://www.baylor.edu/graduate/currentstudents/>), and the Baylor University graduate catalog (<http://www.baylor.edu/graduate/index.php?id=858705>) for more information about Baylor's policies, procedures, and course offerings.

Graduate School

Morrison Hall, Suite 200
710-3588

Contact information for all staff in the Graduate School can be found here:
<http://www.baylor.edu/graduate/facultystaff/index.php?id=98114>

Dean of Baylor Graduate School

Larry Lyon
larry_lyon@baylor.edu

Associate Dean for Graduate Studies and Professional Development

Laine Scales
laine_scales@baylor.edu

Associate Dean for Research

Steve Driese
steven_driese@baylor.edu

Assistant Dean for Graduate Studies

Chris Rios
chris_rios@baylor.edu

Dissertation and Thesis Coordinator

Sandra Harman
sandra_harman@baylor.edu

Reviews dissertations and theses and administers the Graduate School Travel Awards program.

International Student and Scholar Services

710-1461
ISSS_Support@baylor.edu

Assistant Director for International Student and Scholar Services

Mark Bryant
710-2657
mark_bryant@baylor.edu

International Student Advisor

Alexine Burke
710-4826
alexine_burke@baylor.edu

Assists with graduate student visa applications and renewals.

1.2. General Information

Professional Standards

The Department of Geosciences expects that all students will conduct themselves in a manner fitting their professional identity. This includes personal conduct toward faculty, staff, students, and colleagues on and off campus. Failure to display professional conduct may result in disciplinary action, including placing a student on departmental or university probationary status or dismissal from the graduate program.

Graduate Student Residence during the Academic Year

Graduate students enrolled for the academic year in courses and/or receiving Graduate Teaching Assistantship or Research Assistantship (RA) funding are expected to be in residence for the academic year (from middle August – middle May). It is expected that students may need to be off campus during the academic year for professional activities, such as conferences, fieldwork, and workshops. However, students' absences for these activities should not interfere with their GTA or RA responsibilities. Absences should be discussed and approved in advance, preferably in writing, with the student's advisor, the GPD, the lab coordinator, and Department Chair, as appropriate.

Students are expected to continue their research during the summer months to ensure timely completion of their degree. Students engaged in summer research and/or fieldwork may leave campus after their spring final examinations are completed.

Course Work

The course listing for Graduate Courses offered by the Department of Geosciences can be found here: <http://www.baylor.edu/geology/index.php?id=62331>

Graduate and undergraduate courses follow the same schedule. Fall semester typically begins in the middle of August and ends in early December. Spring semester typically begins in the middle of January and ends in early May. Students that are receiving GTA or RA support are expected to register for courses during the academic year (see Sections 2.3. and 3.3. for more information).

Students that remain on campus and are conducting research during the summer may wish to enroll in thesis or dissertation hours during the summer semesters. Students may also wish to enroll in summer courses. In either case, please alert the GPD and the Office Manager about your summer course plans well in advance of registration.

Academic Standing

Students may be placed on departmental probationary status by the Department of Geosciences for failure to maintain the minimum required overall GPA, for receiving a grade of NC in Dissertation or thesis hours (GEO 6v99), for receiving a grade of "provisional pass" or "provisional fail" on their Dissertation/Thesis Proposal and Dissertation/Thesis Defense, or for failing to adhere to the guidelines of professional standards (see sections 2 and 3). While on departmental probationary status, students are ineligible to receive Graduate Research Grant – Education (GRG-E) grants and department funding for research and may be ineligible to receive Graduate Research Grant – Research (GRG-R) grants or departmental support for conference travel and may lose GTA support from the Department of Geosciences. A student that is on departmental

probationary status for more than two consecutive semesters or three non-consecutive semesters will be dismissed from the program (see Sections 2 and 3).

Student Resources

Forms, the Graduate Program Handbook, and information about Scholarships and Funding Sources are available on the Department of Geosciences website:

<http://www.baylor.edu/geology/index.php?id=61731>

Calendars

Baylor University's academic calendar can be found here:

<http://www.baylor.edu/calendar/index.php?t=academic>

The Department of Geosciences calendar can be found here:

<http://www.baylor.edu/geology/index.php?id=61724>

Dates and deadlines for Geosciences-specific requirements are discussed in this document and outline in Sections 2 and 3.

This calendar includes the dates of all regularly scheduled GEO5050 seminars (normally on Friday afternoons at 3 PM) and general departmental events.

Scheduling Seminars, Talks, Events, and Thesis/Dissertation Proposals and Defenses

Classroom space for the Geosciences is overseen by the Office Manager and the Graduate Program Assistant. If you wish to reserve space for seminars, talks, events, or a Thesis/Dissertation Proposal or Defense, please contact the Office Manager or Graduate Program Assistant. Please communicate with the office staff at least two weeks in advance of the event.

Students are encouraged to try to schedule Thesis and Dissertation Proposal Defenses and Thesis and Dissertation Defenses on Wednesday afternoons during the semester. Thesis and Dissertation Proposal Defenses and Thesis and Dissertation Defenses should not be scheduled during the week of final exams. The Thesis or Dissertation Committee, in conjunction with the student, will decide on an appropriate date for the defense. Students that wish to defend in the summer are advised to plan with their Committee well in advance of the start of the summer semester because summer defenses cannot always be accommodated and faculty members are often out of town. Summer oral defenses should therefore be avoided if possible.

Paper copies of thesis/dissertation

The Graduate School no longer accepts paper copies of theses and dissertations. Students are instructed to submit their documents according to Graduate School specifications (<http://www.baylor.edu/graduate/currentstudents/index.php?id=99928>).

The Department of Geosciences requires that students submit their final document in digital format to the Graduate Program Assistant along with **three** paper copies of the thesis/dissertation that will be bound by the Department (one for the Department's collection, one for the Advisor, and one for the Texas collection). Additional copies may be submitted to be bound at the student's expense. A single defensible copy needs to be brought to graduate defenses along with signature pages for all copies.

2. REQUIREMENTS FOR THE PHD DEGREE

Below is a detailed explanation of the Department of Geosciences requirements for completion of a PhD. In addition to these department-specific requirements, students must adhere to the requirements of Baylor Graduate School. The Graduate School's requirements are available in Baylor Graduate Catalog: <http://www.baylor.edu/graduate/index.php?id=858705>.

Students are admitted in the PhD program with the expectation that they will complete a PhD degree. Incoming students will receive 5 years of funding, assuming they meet all of the program requirements and make satisfactory progress toward their degree. More information about funding and stipends is provided in Section 4.

In the PhD program, typically the first two years are focused on coursework and project development to help students develop the foundation and skills necessary to complete their dissertation. Students are expected to complete their Dissertation Proposal and Dissertation Proposal Defense by the end of their second semester in residence. In some rare cases, it may be necessary to delay the Dissertation Proposal/Dissertation Proposal Defense until the third semester; however, this requires approval from the GPD. After successful completion of the Dissertation Proposal and Dissertation Proposal Defense, students are advanced to PhD candidacy, which indicates the student is considered to have developed a project appropriate for a dissertation and has the skills, background, and ability necessary to complete a PhD. The following two to three years are typically focused on completing the major body of research associated with the student's dissertation. The student's dissertation will comprise three manuscripts (two that have been accepted for publication and one that has been approved by the student's Dissertation Committee and submitted to a peer-reviewed journal for review), as well as an introduction and conclusion. Following the submission of their dissertation to the student's Dissertation Committee, usually in the fourth or fifth year, the student will complete their Dissertation Defense. Upon successful completion of their Dissertation Defense and fulfillment of the requirements of the dissertation, the student is qualified to receive their PhD.

Some students may decide to switch to the MS program, either by recommendation of the faculty or by the student's decision. In these cases, the student must complete the requirements of the MS program to complete their degree (see section 3).

2.1. Prior to Enrollment

Prior to enrollment at Baylor University, the GPD will appoint an Advisory Committee for each incoming student. The Advisory Committee will consist of three members from the Department of Geosciences graduate faculty that are selected from areas of specialization complimentary to the dissertation research project(s) that the student intends to work on (for a list of graduate faculty see Appendix 1). Most student's come into the graduate program with their advisor already identified. In that case, the Dissertation Advisor will be one of the members of the Advisory Committee. Before Graduate Student Orientation, the GPD will schedule a meeting for each incoming student and their Advisory Committee. **This meeting is required for all incoming students. Students will be unable to register for classes or attend the Graduate School Orientation if this meeting has not been completed.**

Prior to this advising meeting, incoming graduate students will fill out a record of Geoscience courses already completed (Appendix 2 for Graduate Course Schedule form). This record of courses taken will be used by the Advisory Committee to determine deficiencies and curriculum needs for the student. At the advisement meeting, the Advisory Committee will meet with the

student to develop a preliminary coursework curriculum and research plan for at least the student's first two semesters in residence and review with the student the departmental requirements and their recommended timetable for completion. Note that both the coursework curriculum and research plan are subject to modification pending results from the Dissertation Proposal and Dissertation Proposal Defense (see Section 2.5).

The Graduate Course Schedule form, which includes the Geoscience courses the student has already completed and the course plan, requires committee approval and must be signed by the student and the Dissertation Advisor or Advisory Committee Chairman. A copy of this form must be filed in the departmental records. After the advising meeting, students will work with the Office Manager and Graduate Program Assistant to get registration permits for their courses. After the registration permits have been issued, the student may enroll in their courses.

2.2. Language Proficiency

Students for whom English is a second language and with a TOEFL score below 100 or an IELTS below 7 are expected to enroll in the Graduate School's English for Academic Purposes (EAP) English-speaking course during their first semester in the graduate program. Students may also enroll in an English for Academic Purposes Scientific Writing course offered by the English Department to help improve their research writing skills. Students should consult the Graduate School website for more information on these course offerings (<http://www.baylor.edu/graduate/>). Tuition hours for both courses will be covered by the Department of Geosciences.

2.3. Course Work

2.3.1. Course work requirements

PhD students are required to complete 60 credit hours beyond the BS degree, and at least 30 credit hours beyond the MS degree. Twelve of those credit hours must be dissertation hours (GEO 6V99). A student can only sign up for dissertation hours after they are approved for candidacy. Incoming PhD students with an MS degree can transfer up to 29 hours of coursework, not including thesis or seminar hours, from their MS degree.

At least 24 semester hours must be earned from 5000-level courses. All remaining hours can be earned from 4000-level or 5000-level courses. A maximum of 10 hours of special problems (GEO 5V90) can be applied to the PhD credit-hour requirement. Undergraduate 3000-level (or lower) course deficiencies that are required to be completed by the Advisory or Dissertation Committee do not count toward the semester hour requirements. Students cannot have any course incompletes, other than incompletes in dissertation hours (GEO 6V99) at the time they file the paperwork for their dissertation defense.

All PhD students are required to take GEO 5V90, Grant Writing Seminar, which is focused on grant development, writing, and evaluation. The final project for the Grant Writing Seminar is the development of a comprehensive grant proposal that often serves as the basis for a student's Dissertation Proposal (see Section 2.5). This course is taught in the fall semester and is often taken during a student's first semester of residence; however, some students may opt to take the course during their second year in residence.

All PhD students must take GEO 5050, Geosciences Colloquium, for a minimum of 6 semesters while they are in residence. Graduate students are required to enroll in GEO 5050 for every semester that they are on GTA support. This course will provide a forum for: (a) outside speakers, (b) presentation of student research, (c) discussion of current geologic and geophysical literature,

and (d) guidance in thesis preparation. A different professor will coordinate the sessions each semester. Regular attendance is required. The course runs for approximately 15 weeks and is completed at least one week before final exams.

At minimum, students must meet with their advisor every semester and complete a Course Advisement Form, which is emailed to all students prior to registration each semester. After the first meeting with the Advisory Committee prior to a student's first semester in residence, advisement for subsequent semesters will not necessitate the full committee's attendance unless there is a significant deviation from the previous coursework or research plan. The necessity of meeting with the Advisory Committee (or the student's Dissertation Committee) for approval will be made at the discretion of the student's advisor and the GPD.

The student's advisor must sign the Course Advisement Form, which includes the courses that will be taken in the upcoming semester. A completed Course Advisement Form should be submitted to the Graduate Program Assistant so that registration permits for the courses can be issued. After registration permits are issued, the student may enroll in their courses for the next semester.

2.3.2. Course Grades

Students in the PhD program must maintain at least a 3.0 overall graduate grade point average (GPA) during their graduate course work. Students that fail to maintain an overall GPA of 3.0 during any semester will be placed on probation by the Graduate School for the next nine semester hours of graduate course work (typically the next semester). Probationary status by the Graduate School prevents students from receiving GTA or RA support, tuition support from the university, or enhancement awards from the Graduate School. If after completion of the nine semester hours on probation the student's overall GPA is still below 3.0, the student will be dismissed from the program. More information about GPA requirements can be found in the Graduate Catalog: <http://www.baylor.edu/graduate/index.php?id=858705>.

When registered for Dissertation hours (GEO 6V99), students will receive a grade of Credit (CR), No Credit (NC), or Incomplete (I). "CR" indicates the student has made satisfactory progress, "NC" indicates the student did not make satisfactory progress, and "I" indicates the student has not completed all assignments for the semester. If a student receives "NC" for a semester, those semester hours will need to be taken again and the student will be placed on departmental probationary status. If a student receives "NC" for two consecutive semesters or "NC" for three non-consecutive semesters, the student will be dismissed from the program.

2.4. Forming a Dissertation Committee

Once a student has established a basic concept for a PhD project (normally in the first semester at Baylor University), the student will ask a member of the Geosciences Department faculty to serve as the primary dissertation advisor. Under some circumstances, co-advisors may be justified for dissertation direction. Typically, students will begin the program having already previously determined their advisor.

Students can change advisors during their time in the graduate program. Students that wish to change their dissertation advisor should notify the GPD, Office Manager, and Graduate Program Assistant in writing that (1) they plan to change dissertation advisor and (2) the name of the new dissertation advisor and any other changes to the makeup of their dissertation committee. This change must be approved by the GPD or Department Chair if the GPD is unavailable.

After the dissertation advisor has been chosen, the student and their advisor will select a Dissertation Committee that will guide the student through the remainder of their tenure in the PhD program. The Dissertation Committee must consist of no fewer than five (5) members. At least three members of the committee must be Graduate Faculty in the Department of Geosciences (see Appendix 1 for list of graduate faculty in Geosciences). One member of the committee may be Graduate Faculty in the Department of Geosciences, or from outside of Baylor with approval of the Graduate Program Director. One member must be external to the Department of Geosciences and on the Graduate Faculty of Baylor University. Graduate Faculty outside of the Department of Geosciences and non-Baylor committee members are not eligible to serve as the dissertation chairperson. The Dissertation Committee may include additional members (beyond the minimum number of 5). Additional members may include individuals not on the Graduate Faculty at Baylor and individuals from outside of Baylor University with approval of the Graduate Program Director.

The Dissertation Committee will evaluate the student's Dissertation Proposal and Dissertation Proposal Defense, as well as annually evaluate student's progress toward their dissertation. The Dissertation Committee will also review and evaluate all aspects of the dissertation and evaluate the student during their Dissertation Defense.

2.5. Dissertation Proposal and Dissertation Proposal Defense

Students are expected to complete their Dissertation Proposal and Dissertation Proposal Defense, which fulfills the requirement of Graduate School's Preliminary Exam (see <http://www.baylor.edu/graduate/index.php?id=858705>) during their second semester in residence. In some cases, students will need additional time to develop their dissertation projects and can defer their Dissertation Proposal and Dissertation Proposal Defense until the third semester. Deferral of the Dissertation Proposal or Dissertation Proposal Defense requires approval of the student's dissertation advisor and the GPD.

Near the end of a student's second semester in residence, the student will schedule their Dissertation Proposal Defense. At least two weeks prior to their Dissertation Proposal Defense, the student will provide their Dissertation Committee members and the GPD with a written Dissertation Proposal. This Dissertation Proposal will typically outline the student's dissertation, the three discrete manuscripts that will be developed during their dissertation, a timeline for completion that includes information about coursework and a research schedule, and a project budget. At the discretion of the Dissertation Advisor, Dissertation Committee, and/or the student, the Dissertation Proposal can be focused or formatted differently, such as written as a formal grant proposal to be submitted to an external funding agency (e.g., National Science Foundation, Petroleum Research Fund, US Department of Agriculture, Environmental Protection Agency, US Geological Survey) or as a research paper focused on specific aspects of a student's dissertation and research preparation. The Dissertation Proposal will be evaluated by the Dissertation Committee and will be part of the final evaluation of the student's Dissertation Proposal Defense.

The student's Dissertation Proposal Defense will be open to the Geosciences Department and any interested Geosciences faculty, staff, and students may attend. At the Dissertation Proposal Defense, the student will provide a formal 30-minute presentation that summarizes the objectives, methodology, timetable, and budget that will result in the submittal of three manuscripts for peer review and publication in approved journals. The general audience may ask questions about the student's presentation and/or Dissertation Proposal following the presentation. The Dissertation Committee will evaluate the presentation and provide a grade (see Appendix 3 for grading rubric). The student must receive a minimum average grade of 80% on their presentation to pass their Dissertation Proposal Defense.

Following this question and answer session, the general audience will be excused and the Dissertation Committee will conduct an examination of the student's Dissertation Proposal and Dissertation Proposal Defense behind closed doors. This examination will focus primarily on the student's knowledge of the literature, analytical techniques and concepts, and nature of the geology relevant to the dissertation project(s); however, other pertinent topics in the Geosciences may also be covered. The Dissertation Committee will also provide guidance to enhance/improve the student's dissertation project(s).

Results from the Dissertation Proposal and the Dissertation Proposal Defense will be evaluated by the Dissertation Committee, and a pass, provisional pass, provisional fail, or fail decision will be determined by the Dissertation Committee and recorded in writing in the "Results of Preliminary Examination" form (<http://www.baylor.edu/graduate/doc.php/206338.pdf> and Appendix 4).

A "pass" indicates that the student has fulfilled the Dissertation Proposal requirements necessary for advancement to PhD candidacy.

A "provisional pass" decision will require the student to satisfy a specified deficiency as directed by the Dissertation Committee. In this case, the student will be advanced to PhD candidacy, but placed under departmental probationary status. It is possible for a student to achieve the minimum grade of 80% on their Dissertation Proposal Defense presentation, yet still receive a "provisional pass." The student is required to meet with the Dissertation Committee the following semester to demonstrate that they have satisfactorily addressed the identified deficiency. If the Dissertation Committee determines the student has addressed the identified deficiency, the student will be removed from departmental probationary status and will have completed all of the Dissertation Proposal requirements necessary for advancement to candidacy. Failure to satisfactorily address the deficiency will result in dismissal from the program.

A "provisional fail" indicates that the student has not met the Department's requirements for advancement to PhD candidacy, but with some additional work could meet the requirements. In this case, the student will meet with their Dissertation Committee and the GPD to determine a plan to address the problems that resulted in a "provisional fail." The student will not be advanced to PhD candidacy and will be placed on departmental probationary status until their rescheduled Dissertation Proposal Defense. The student will be required to reschedule their Dissertation Proposal and Defense by the end of the subsequent semester. At the second Dissertation Proposal Defense, the student can receive a "pass" or "fail." If the Dissertation Committee determines the student has passed, the student will be removed from departmental probationary status and will have completed all of the Dissertation Proposal requirements necessary for advancement to candidacy. Failure will result in dismissal from the program.

A "fail" indicates that the student has not met the Department's requirements for advancement to PhD candidacy. A "fail" will result in dismissal of the student from the graduate program.

When a student passes the proposal defense and examination, the Dissertation Committee and student will establish goals for research and coursework completion for the upcoming year. These goals will be documented in writing and placed in the student's file in the departmental office.

Students that have received a "pass" or "provisional pass" on their Dissertation Proposal and Dissertation Proposal Defense are eligible for all Graduate Research Grants (see Section 4.6. for more details).

2.6. Admission to candidacy

Once a student has satisfied the requirements outlined for the Dissertation Proposal and Dissertation Proposal Defense (Section 2.5) and received approval by the Graduate School of their formal application for admission to candidacy, they will be advanced to PhD candidacy.

An application for admission to candidacy must be filed with the Graduate School upon successful completion of the above requirements. It should be filed no later than five months prior to the date upon which the degree is to be conferred.

2.7. Annual progress report and examination

Each spring semester in all years subsequent to the proposal defense, the student will meet with their Dissertation Committee and provide a brief oral presentation that summarizes progress made toward completion of the requirements over the previous year. The Dissertation Committee will evaluate the progress to date compared to the “goals” established during the Dissertation Proposal and each annual progress meeting.

Based upon the progress toward completion of the degree requirements to date, a pass, provisional pass, or fail decision will be rendered by the Dissertation Committee and recorded in writing in the “Results of Annual Examination” form (Appendix 5).

A “pass” indicates the student is making adequate progress toward their degree.

A “provisional pass” decision indicates the student is making progress toward their degree, but has a specific deficiency that needs to be address. A “provisional pass” will require the student to satisfy a specified deficiency as directed by the Dissertation Committee, and results in the student being placed on departmental probationary status. The student must meet with their committee the following semester to demonstrate that they have satisfactorily addressed the deficiency. If they have satisfactorily addressed the deficiency, the student will be removed from departmental probationary status. If the student has not addressed the deficiency, they will be dismissed from the program.

A “fail” decision indicates that the student is not making adequate progress toward their degree and will result in termination of the student from the PhD program.

Students who pass the annual review will confer with the Dissertation Committee to establish research goals for the student to achieve during the upcoming year. These goals will be documented in writing, submitted to the Graduate Program Assistant, and placed in the student’s file in the departmental office.

2.8. Dissertation Requirement

The Department of Geosciences requires that its PhD students conduct doctoral-level scientific research that is new and original. A student’s dissertation will consist of three papers, an introduction, and a conclusion. Typically, the three papers that comprise the dissertation should be broadly related in subject area, but exceptions may be granted with approval of the student’s Dissertation Committee. The three papers can be co-authored, but the student must be first author on each of the papers.

Each of the dissertation manuscripts and the journal to which it will be submitted must be approved by all of the Dissertation Committee members before it is submitted to a journal for peer review. It is the student's responsibility to ensure that all members of the Dissertation Committee receive the manuscript. By approving a manuscript for submission to a journal for review, the Dissertation Committee certifies that the manuscript is satisfactory for inclusion in the dissertation. Upon receipt of a dissertation manuscript, each Dissertation Committee member must decide within three weeks whether he/she approves submission of the manuscript to the journal for peer review and the chosen journal. Each Dissertation Committee member must complete and sign the PhD Paper Approval form (Appendix 6). The completed forms must be submitted to the Graduate Program Assistant and placed in the student's file. During the academic year, the manuscript will be considered acceptable by any member of the Dissertation Committee who does not provide the student with an evaluation of the manuscript within three weeks after that committee member is known to have received the manuscript. In such cases, the PhD Paper Approval Form should indicate default approval. Default approval is not granted during breaks between the semesters or during summer break when members of the Dissertation Committee may be unavailable.

Dissertations will adhere to the Graduate School formatting requirements (<http://www.baylor.edu/graduate/currentstudents/index.php?id=99928>) and follow these guidelines:

- There will be an overall dissertation abstract.
- There will be an overall introductory chapter describing the complete project.
- Each paper will constitute a chapter.
- Each chapter will have an independent abstract, introduction, and conclusion (as applicable).
- Each chapter will have its own bibliography of references specific to that chapter. There will also be an overall bibliography at the end of the complete dissertation that includes all references cited.
- All the figures in the dissertation will be numbered sequentially from beginning to end and figures will be numbered by each chapter as well, for example; 1.1, 1.2, to 1.n for Chapter 1 followed by 2.1, 2.2, etc. for Chapter 2, etc.

Two of the three dissertation papers must be accepted for publication in an approved journal and the third manuscript must have been approved by the Dissertation Committee and submitted to an approved journal for review before a student is allowed to defend their dissertation. At least two weeks prior to the Dissertation Defense, the student is required to submit their entire dissertation to their Dissertation Committee and GPD.

After the dissertation has been successfully defended, the three approved papers will be combined into a satisfactory document in accordance with Graduate School specifications (<http://www.baylor.edu/graduate/currentstudents/index.php?id=99928>).

2.9. Dissertation Defense

The Dissertation Defense is an approximately 45-minute formal oral presentation of the dissertation research results that is open to the public. At minimum, all members of the Dissertation Committee must attend the Dissertation Defense. At least 10 days before the

defense, the student is required to submit the Announcement of Oral Examination (<http://www.baylor.edu/content/services/document.php/206341.pdf> and Appendix 7) to the Graduate Program Assistant so that it can be submitted to the Graduate School and advertised publicly by the Department of Geosciences.

After the presentation, the student will answer questions from the general audience about the dissertation research presented and about any other matters deemed appropriate by members of the Department of Geosciences faculty in attendance. The Dissertation Committee will evaluate the presentation and provide a grade (see Appendix 3 for grading rubric). The student must receive a minimum average grade of 80% on their defense presentation to pass their Dissertation Defense.

After the public presentation and question and answer session, the student will be examined in closed proceedings by the Dissertation Committee and any other interested Department of Geosciences Graduate Faculty. Any Department of Geosciences faculty may attend the examination to ask questions and to provide input and perspectives on the student's dissertation and dissertation defense. However, only the Dissertation Committee will grade the Dissertation Defense presentation and the oral examination. When there are no more questions, the student will be excused and the faculty members that comprise the Dissertation Committee will evaluate the dissertation and the Dissertation Defense in a closed session.

A student will have successfully defended their dissertation if a simple majority of the Dissertation Committee votes to pass the candidate. The results of the examination will be documented in writing on the Doctoral Oral Examination form (<http://www.baylor.edu/content/services/document.php/206323.pdf> and Appendix 8.)

If the examining faculty determine that the student has "failed" their Dissertation Defense, the student will be given an opportunity for another Dissertation Defense to be presented within a specific time limit determined by the Dissertation Committee.

Students should bring a single, defensible paper copy of their dissertation to their Dissertation Defense along with signature pages for all copies.

Completion of the publication requirements (Section 2.8) and successfully passing the Dissertation Defense are both necessary to qualify to receive a PhD degree.

2.10. Schedule for PhD program

Below is a complete overview of the schedule for the PhD program. Progress is indicated by time in residence. The schedule is different for students incoming with a BS or MS degree based on differences in course requirements. Details of the specific tasks included in the schedule are in Sections 2.1 – 2.9. A schematic timeline for PhD students is also available in Appendix 9.

Year 1, Semester 1

1. Prior to the semester
 - a. Meet with the preliminary Advisory Committee to determine the course schedule for Years 1 and 2.
2. Early in the semester
 - a. Determine the Dissertation Advisor.
 - b. Meet with the Dissertation Advisor to begin developing the research plan and to determine the Dissertation Committee.

3. By the end of the semester
 - a. Formalize the Dissertation Committee.
 - b. Meet with the Dissertation Advisor to complete the Course Approval Form for next semester.

Year 1, Semester 2

1. Early in the semester
 - a. Meet with the Dissertation Advisor to develop the research plan and the plan for written and oral Dissertation Proposal.
2. By the end of the semester
 - a. Develop and complete the written Dissertation Proposal.
 - b. Submit the Dissertation Proposal to the Dissertation Advisor and the Dissertation Committee.
 - c. Complete the Dissertation Proposal and Thesis Proposal Defense.
 - d. Discuss the course schedule and the research plan with the Dissertation Committee.
 - e. Meet with the Dissertation Advisor to complete the Course Approval Form for next semester.

Year 2

1. By the end of each semester
 - a. Meet with the Dissertation Advisor to complete the Course Approval Form for next semester.
2. By the end of the year
 - a. Complete the Annual Examination with the Dissertation Committee.
 - b. Discuss the course schedule and research plan with the Dissertation Committee.

Year 3

1. By the end of each semester
 - a. Meet with the Dissertation Advisor to complete the Course Approval Form for next semester.
2. By the end of the year
 - a. Complete the Annual Examination with the Dissertation Committee.
 - b. Discuss the course schedule and the research plan with the Dissertation Committee.
 - c. Submit Paper 1.

Year 4

1. By the end of each semester
 - a. Meet with the Dissertation Advisor to complete the Course Approval Form for next semester.
2. By the end of the year
 - a. Complete the Annual Examination with the Dissertation Committee.
 - b. Discuss the course schedule and the research plan with the Dissertation Committee.
 - c. Submit Paper 2.

Year 5

1. By the end of the fall semester
 - a. Meet with the Dissertation Advisor to complete the Course Approval Form for next semester.
2. By the end of the year

- a. Submit Paper 3.
- b. Submit the dissertation to the Dissertation Committee.
- c. Defend the PhD dissertation.
- d. Submit the dissertation to the Graduate School.

3. REQUIREMENTS FOR THE MS DEGREE

Below is a detailed explanation of the Department of Geosciences requirement for completion of an MS degree. In addition to these department specific requirements, students must adhere to the requirements of Baylor Graduate School. The Graduate School's requirements are available in Baylor Graduate Catalog: <http://www.baylor.edu/graduate/index.php?id=858705>.

Students admitted in the MS program with the expectation that they will complete an MS degree. Incoming students receive 2 years of funding assuming they meet all of the program requirements and make satisfactory progress toward their degree. More information about funding and stipends is provided in Section 4.

In the MS program, typically the first two semesters are spent focused on coursework and project development to help students develop the foundation and skills necessary to complete their thesis. Students are expected to complete their Thesis Proposal and Thesis Proposal Defense by the end of their second semester in residence. In some rare cases, it may be necessary to delay the Thesis Proposal/Thesis Proposal Defense until the third semester; however, this requires approval from the GPD.

After completion of the Thesis Proposal and Thesis Proposal Defense, students are advanced to MS candidacy, which indicates the student is considered to have developed a project appropriate for a thesis and has the skills, background, and ability necessary to complete an MS. The following two semesters are typically focused on completing the major body of research associated with the student's thesis. Following submission of the thesis to the students Thesis Committee, usually in the fourth semester in residence, the student will complete their thesis defense. Upon successful completion of their thesis defense and fulfillment of the requirements of the thesis, the student is qualified to receive their MS.

Some students may wish to transition from the MS program to the PhD program. If a student wishes to first complete their MS degree, they can apply for admission to the PhD program during their second year in the MS program. In this case, if the student were accepted into the PhD program, they would be required to fulfill the requirements of the MS program prior to enrolling in the PhD program. If a student wishes to transition from the MS to PhD programs without first completing their MS degree, they must submit a request in writing to switch programs from the MS to the PhD program. This switch from the MS program to the PhD program must be approved by the student's advisor, the GPD, and a simple majority of Graduate Faculty in the Department of Geosciences. After switching from the MS to PhD program, the student must fulfill all requirements of the PhD program (see section 2).

3.1. Prior to Enrollment

Prior to enrollment at Baylor University, the GPD will appoint an Advisory Committee for each incoming student. The Advisory Committee will consist of three members from the Department of Geosciences that are selected from areas of specialization complimentary to the thesis research project that the student intends to work on. Most student's come into the program with their advisor already identified. In that case, the Thesis Advisor will be one of the members of the Advisory Committee. Before Graduate Student Orientation the GPD will schedule a meeting for each incoming student and their Advisory Committee. **This meeting is required for all incoming students. Students will be unable to register for classes or attend the Graduate School Orientation if this meeting has not been completed.**

Prior to this advising meeting, incoming graduate students will fill out a record of Geoscience courses already completed (See Appendix 2 for Graduate Course Schedule form). This record of courses taken will be used by the Advisory Committee to determine deficiencies and curriculum needs for the individual student. At the advisement meeting, the Advisory Committee will meet with the student to develop a preliminary coursework curriculum and research plan for at least the student's first two semesters in residence and review with the student the departmental requirements and their recommended timetable for completion. Note that both the coursework curriculum and research plan are subject to modification pending results from the Thesis Proposal and Thesis Proposal Defense (see section 3.5).

The Graduate Student Course Schedule form, which includes the Geoscience courses the student has already completed and the course plan, requires committee approval and must be signed by the student and the Thesis Advisor or Advisory Committee Chairman. A copy of this form will be filed in the departmental files. After the advising meeting, students will work with the Office Manager and Graduate Program Assistant to get registration permits for their courses. After the registration permits have been given, the student may enroll in their courses.

3.2. Language Proficiency

Students for whom English is a second language and with a TOEFL score below 100 or an IELTS below 7 are expected to enroll in the Graduate School's English for Academic Purposes (EAP) English-speaking course during their first semester in the graduate program. Students may also enroll in an English for Academic Purposes Scientific Writing course offered by the English Department to help improve their research writing skills. Students should consult the Graduate School website for more information on these course offerings (<http://www.baylor.edu/graduate/>). Tuition hours for both courses will be covered by the Department of Geosciences.

3.3. Course Work

3.3.1. Course work requirements

MS students are required complete 30 credit hours beyond the BS degree. Six of those credit hours must be thesis hours (GEO 5V99). A student can only sign up for thesis hours after they are approved for candidacy.

At least 12 semester hours must be earned from 5000-level courses. All remaining hours must be earned from 4000-level and 5000-level courses. A maximum of 6 hours of special problems (5V90) can applied to the MS credit hour requirement. Undergraduate 3000-level (or lower) course deficiencies that are required to be completed by the Advisory or Thesis Committee do not count toward the semester hour requirements. Student's cannot have any course incompletes, other than incompletes in thesis hours (GEO 5V99) at the time they file the paperwork for their thesis defense.

All MS students must take GEO 5050, Geosciences Colloquium, for a minimum of 4 semesters while they are in residence. Graduate students are required to enroll in GEO 5050 for every semester that they are on graduate teaching assistant (GTA) support. This course will provide a forum for: (a) outside speakers, (b) presentation of student research, (c) discussion of current geologic and geophysical literature, and (d) guidance in thesis preparation. A different professor will coordinate the sessions each semester. Regular attendance is required. The course runs for approximately 15 weeks and is completed at least one week before final exams.

At minimum, students must meet with their advisor every semester and complete a Course Advisement Form, which are emailed to all students prior to registration each semester. After the first meeting with the Advisement Committee prior to a student's first semester in residence, advisement for subsequent semesters will not necessitate the full committee's attendance unless there is a significant deviation from the previous coursework or research plan. The necessity of meeting with the Advisement Committee (or the student's Thesis Committee) for approval will be made at the discretion of the student's advisor and the GPD.

The Course Advisement Form, which includes the course(s) that will be taken in the upcoming semester must be signed by the student's advisor and the GPD. A completed Course Advisement Form should be submitted to the Graduate Program Assistant so that registration permits for the courses can be issued. After registration permits are issued, the student may enroll in their courses for the next semester.

3.3.2. Course Grades

Students in the MS program must maintain at least a 3.0 overall graduate grade point average during their graduate course work. Students that fail to maintain an overall GPA of 3.0 during any semester will be placed on probation by the Graduate School for the next nine semester hours of graduate course work (typically the next semester). Probationary status by the Graduate School prevents students from receiving GTA or RA support, tuition support from the university, or enhancement awards from the Graduate School. If after completion of the nine semester hours on probation, the student's overall GPA is still below 3.0, the student will be dismissed from the program. More information about GPA requirements can be found in the Graduate Catalog: <http://www.baylor.edu/graduate/index.php?id=858705>.

When registered for Thesis hours (GEO 5V99), students will receive a grade of Credit (CR), No Credit (NC), or Incomplete (I). "CR" indicates the student has made satisfactory progress, "NC" indicates the student did not make satisfactory progress, and "I" indicates the student has not completed all assignments for the semester. If a student receives "NC" for a semester, those semester hours will need to be taken again and the student will be placed on departmental probationary status. If a student receives "NC" for two semesters, the student will be dismissed from the program.

3.4. Forming a Thesis Committee

Once a student has established a basic concept for an MS project (normally in the first semester in residence) the student will ask a member of the Geosciences Department faculty to serve as the primary Thesis Advisor. Under some circumstances, co-advisors may be justified for thesis direction. Typically, students will begin the program having already previously determined their advisor.

Students can change advisors during their time in the graduate program. Students that wish to change their thesis advisor should notify the GPD, Office Manager, and Graduate Program Assistant in writing that (1) they plan to change thesis advisor and (2) the name of the new thesis advisor and any other changes to the makeup of their thesis committee. This change must be approved by the GPD or Department Chair if the GPD is unavailable.

After the Thesis Advisor has been chosen, the student and their advisor will select a Thesis Committee that will guide the student through the remainder of their tenure in the MS program. The Thesis Committee must consist of no fewer than three (3) members. One member of the

committee must be Graduate Faculty in the Department of Geosciences (see Appendix 1 for list of graduate faculty in Geosciences). One member of the committee may be Graduate Faculty in the Department of Geosciences, or from outside of Baylor with approval of the Graduate Program Director. One member must be external to the Department of Geosciences and on the Graduate Faculty of Baylor University. Graduate Faculty outside of the Department of Geosciences and non-Baylor committee members are not eligible to serve as the thesis chairperson. The Thesis Committee may also include additional members (beyond the minimum number of 3). Additional members may include individuals not on the Graduate Faculty at Baylor and from outside of Baylor University, with approval of the Graduate Program Director.

The Thesis Committee will evaluate the student's Thesis Proposal and Thesis Proposal Defense. The Thesis Committee will also review and evaluate all aspects of the thesis and evaluate the student during their Thesis Defense.

3.5. Thesis Proposal and Thesis Proposal Defense

Students are expected to complete their Thesis Proposal and Thesis Proposal Defense, which fulfills the requirement of Graduate School's Preliminary Exam (see <http://www.baylor.edu/graduate/index.php?id=858705>) during their second semester in residence. In some cases, students will need additional time to develop their thesis projects and can defer their Thesis Proposal and Thesis Proposal Defense until the third semester. Deferral of the Thesis Proposal and Thesis Proposal Defense requires approval of the student's Thesis Advisor and the GPD.

Near the end of a student's second semester in residence, the student will schedule their Thesis Proposal and Thesis Proposal Defense. At least two weeks prior to their Thesis Proposal Defense, the student will provide their Thesis Committee members and the GPD with a written Thesis Proposal. This Thesis Proposal will typically outline the student's thesis, a timeline for completion that includes information about coursework and a research schedule, and a project budget. At the discretion of the Thesis Advisor, Thesis Committee, and/or the student, the Thesis Proposal can be focused or formatted differently, such as written as a formal grant proposal to be submitted to an external funding agency (e.g., National Science Foundation, Petroleum Research Fund, US Department of Agriculture, Environmental Protection Agency, US Geological Survey) or as a research paper focused on specific aspects of a student's thesis and research preparation. The Thesis Proposal will be evaluated by the Thesis Committee and will be part of the final evaluation of the student's Thesis Proposal Defense.

The student's Thesis Proposal Defense will be open to the Geosciences Department and any interested Geosciences faculty, staff, and students may attend. At the Thesis Proposal Defense, the student will present a formal 15-minute presentation that summarizes the objectives, methodology, timetable, and budget that will result in the final thesis. The general audience may ask questions about the student's presentation and/or Thesis Proposal following the presentation. The Thesis Committee will evaluate the presentation and provide a grade (see Appendix 3 for grading rubric). The student must receive a minimum average grade of 80% on their presentation to pass their Thesis Proposal Defense.

Following this question and answer session, the general audience will be excused and the Thesis Committee will conduct an examination of the student's Thesis Proposal and Thesis Proposal Defense behind closed doors. This examination will focus primarily on the student's knowledge of the literature, analytical techniques and concepts, and nature of the geology relevant to the thesis

project(s); however, other pertinent topics in the Geosciences may also be covered. The Thesis Committee will also provide guidance to enhance/improve the student's thesis project.

Results from the Thesis Proposal and Thesis Proposal Defense will be evaluated by the Thesis Committee, and a pass, provisional pass, provisional fail, or fail decision will be determined by the Thesis Committee and recorded in writing in the "Results of Preliminary Examination" form (<http://www.baylor.edu/graduate/doc.php/206338.pdf> and Appendix 4).

A "pass" indicates that the student has fulfilled the Thesis Proposal requirements necessary for advancement to MS candidacy.

A "provisional pass" decision will require the student to satisfy a specified deficiency as directed by the Thesis Committee. In this case, the student will be advanced to MS candidacy, but also placed under departmental probationary status. It is possible for a student to achieve the minimum grade of 80% on their Thesis Proposal Defense presentation, yet still receive a "provisional pass." The student is required to meet with the Thesis Committee in the following semester to demonstrate that they have satisfactorily addressed the identified deficiency. If the Thesis Committee determines the student has addressed the identified deficiency, the student will be removed from departmental probationary status and will have completed all of the Thesis Proposal requirements necessary for advancement to MS candidacy. Failure to satisfactorily address the deficiency will result in dismissal from the program.

A "provisional fail" indicates that the student has not met the Department's requirements for advancement to MS candidacy, but with some additional work could meet the requirements. In this case, the student will meet with their Thesis Committee and the GPD to determine a plan to address the problems that resulted in a "provisional fail." The student will not be advanced to MS candidacy and will be placed on departmental probationary status until their rescheduled Thesis Proposal and Thesis Proposal Defense. The student will be required to reschedule their Thesis Proposal Defense in the subsequent semester. At the second Thesis Proposal Defense, the student can receive a "pass" or "fail." If the Thesis Committee determines the student has passed, the student will be removed from departmental probationary status and will have completed all of the Thesis Proposal requirements necessary for advancement to MS candidacy. Failure will result in dismissal from the program.

A "fail" indicates that the student has not met the Department's requirements for advancement to MS candidacy. A "fail" will result in dismissal of the student from the graduate program.

When a student passes the proposal defense and examination, the Thesis Committee and student will establish goals for research and coursework completion for the upcoming year. These goals will be documented in writing, and placed in the student's file in the departmental office.

Students that have received a "pass" or "provisional pass" on their Thesis Proposal and Thesis Proposal Defense are eligible for all Graduate Research Grants (see Section 4. for more details).

3.6. Admission to candidacy

Once a student has satisfied the requirements outlined for the Thesis Proposal and Thesis Proposal Defense (section 3.5.), they will be advanced to MS candidacy.

Advancement to candidacy must occur at least one semester prior to the date upon which the degree is to be conferred.

3.7. Thesis requirements

The Department of Geosciences requires that its MS students conduct masters-level scientific research that is new and original. The thesis can either be written as a traditional thesis document or as a manuscript for submission to a journal. If written as a traditional thesis, the student should follow the “Suggestions to authors of the reports of the United States Geological Survey” (<https://pubs.er.usgs.gov/publication/7000088>). If written for submission to a journal, the paper can be co-authored, but the student must be first author of the paper.

At least two weeks prior to the thesis defense, the student is required to submit their entire thesis to their Thesis Committee and GPD.

After the thesis has been successfully defended, the thesis will be formatted into a satisfactory document in accordance with Graduate School specifications (<http://www.baylor.edu/graduate/currentstudents/index.php?id=99928>).

3.8. Thesis defense

The thesis defense is an approximately 15-20-minute formal oral presentation of the thesis research results that is open to the public. At minimum, all members of the Thesis Committee must attend the Thesis Defense. At least 10 days before the defense, the student is required to submit the Announcement of Oral Examination (<http://www.baylor.edu/content/services/document.php/206340.pdf> and Appendix 10) to the Graduate Program Assistant so that it can be submitted to the Graduate School and be advertised publicly by the Department of Geosciences.

After the presentation, the student will answer questions from the general audience about the thesis research presented, and about other matters deemed appropriate by members of the Department of Geosciences faculty in attendance. The Thesis Committee will evaluate the presentation and provide a grade (see Appendix 3 for the grading rubric). The student must receive a minimum average grade of 80% to pass their thesis defense.

After the public presentation and question and answer session, the student will be examined by the Thesis Committee, and any other interested Department of Geosciences Graduate Faculty, in closed proceedings. Any Department of Geosciences faculty may attend the examination to ask questions and to provide input and perspectives on the student’s thesis and Thesis Defense. However, only the Thesis Committee will grade the Thesis Defense presentation and the oral examination. When there are no more questions, the student will be excused and the faculty members that comprise the Thesis Committee will evaluate the Thesis Defense in a closed session.

A student will have successfully defended the dissertation if a simple majority of the Thesis Committee vote to pass the candidate. The results of the examination will be documented in writing on the Results of Masters Oral Examination form (<http://www.baylor.edu/graduate/FacultyStaff/doc.php/206327.pdf> and Appendix 11)

If the examining faculty determine that the student has “failed” their thesis defense, the student will be given an opportunity for another thesis defense to be presented within a specific time limit determined by the dissertation committee.

Students should bring single defensible paper copy of their thesis to their graduate defense along with signature pages for all copies.

Completion of the thesis (Section 3.7.), and successfully passing the thesis defense are both necessary to qualify to receive the MS degree.

3.9. Schedule for MS program

Below is a complete overview of the schedule for the MS program. Progress is indicated by time in residence. Details of the specific tasks included in the schedule are in Sections 3.1 – 3.8. A generalized timeline for completion of an MS degree is also available in Appendix 12.

Year 1, Semester 1

1. Prior to the semester
 - a. Meet with the preliminary Advisory Committee to determine the course schedule for Years 1 and 2.
2. Early in the semester
 - a. Determine the Thesis Advisor.
 - b. Meet with the Thesis Advisor to begin developing the research plan and to determine the Thesis Committee.
3. By the end of the semester
 - a. Formalize the Thesis Committee.
 - b. Meet with the Thesis Advisor to complete the Course Approval Form for next the semester.

Year 1, Semester 2

1. Early in the semester
 - a. Meet with the Thesis Advisor to develop the research plan and plan for the Thesis Proposal and Thesis Proposal Defense.
2. By the end of the semester
 - a. Develop and complete the written Thesis Proposal.
 - b. Submit the Thesis Proposal to the Thesis Advisor and Thesis Committee.
 - c. Complete the Thesis Proposal and Thesis Proposal Defense.
 - d. Discuss the course schedule and research plan with the Thesis Committee.
 - e. Meet with the Thesis Advisor to complete the Course Approval Form for the next semester.

Year 2, Semester 1

1. Early in the semester
 - a. Meet with the Thesis Advisor to develop the plan for completion of the research associated with the thesis.
2. By the end of the semester
 - a. Meet with the Thesis Advisor to complete the Course Approval Form for next semester.

Year 2, Semester 4

1. Early in the semester
 - a. Meet with the Thesis Advisor to develop the plan for completion of the thesis and to schedule the thesis defense.
2. By the end of the semester
 - a. Submit the thesis to the Thesis Committee.

- b. Defend the MS thesis.
- c. Submit the MS thesis to the Graduate School.

4. FINANCIAL SUPPORT

4.1. Eligibility for support

Graduate financial assistance is normally limited to two (2) academic years for MS students and up to five (5) academic years for PhD students. Financial support is based on the student making satisfactory progress toward the degree and indicators that associated GTA or RA responsibilities are being fulfilled as well (see Sections 2 and 3).

4.2. Graduate Teaching Assistantships

Students that receive a GTA will be required to teach courses and/or labs every semester. Teaching assignments for each semester will be made by the Laboratory Coordinator and GPD.

4.3. Research Assistantships

Funding for RAs come directly from external funding sources awarded to individual faculty, to the department, or to students. The work performed on an RA is typically associated with a faculty member's research project, which is also usually the student's thesis or dissertation project. The principal investigators for the RA funding will determine how an RA is awarded.

4.4. Fellowships

Students are strongly encouraged to apply for outside fellowships, particularly the NSF Graduate Research Fellowship Program (GRFP). The Graduate School maintains a list of fellowship opportunities: <https://www.baylor.edu/graduate/assistantships/index.php?id=87687>.

4.5. Financial aid

Students are eligible for student loans as full-time students. A graduate student is considered full time if they are enrolled in at least 9 credit hours per semester or are registered for at least one thesis/dissertation credit hour. Students cannot add extra hours of coursework at departmental expense just to fulfill this need.

4.6. Research grants

Graduate research is funded from a variety of sources with an emphasis on external grants. Students are encouraged to actively apply for external funding.

Students in the graduate program are also eligible to receive internal grants (Graduate Research Grants [GRGs]). There are three types of GRGs: Geoscience Research Grant-Research (GRG-R), Geoscience Research Grant-Starter (GRG-S), and Geoscience Research Grant-Education (GRG-E). Students are also eligible to apply for funding for field assistants from the James. W. Dixon Undergraduate Field Assistant Award. Students are also eligible to receive funding for thesis and dissertation research from the Department of Geosciences. A list of internal funding opportunities is available on the Department of Geosciences website: <http://www.baylor.edu/content/services/document.php/37779.pdf>

4.6.1. Geoscience Research Grant-Research

GRG-R grants can be used to support any aspect of a student's graduate research including, but not limited to field work, laboratory analyses, equipment, thin sections, computing access, and research at laboratories outside of Baylor.

Requirements for funding

To be considered for a GRG-R, students must meet the following requirements:

- 1) Have formed a committee, defended his/her thesis/Dissertation Proposal, and have his/her proposal approved by his/her committee.
- 2) Applied for funding from at least one external funding agency to support his/her project.

Eligibility

MS students: MS students are eligible to receive one GRG-R. The maximum amount of funding for the GRG-R is \$3,000.

PhD students: PhD students are eligible to receive one GRG-R for each of their dissertation papers. PhD students are eligible to receive a maximum of three GRG-Rs. The maximum amount of funding per grant for the GRG-R is \$3,000.

Application procedure

Applications for GRG-R are accepted at any time. Submit your application electronically as a Word document or PDF to the Graduate Program Director, Dr. Daniel Peppe at daniel.peppe@baylor.edu.

GRG-R applications must include:

- (1) A one-page summary of your research project that includes:
 - a. The goals and objectives of your GRG-R funded research.
 - b. The methods that you will employ to conduct your research.
 - c. The potential significance of your research and how the GRG-R will allow you to complete your thesis research.
- (2) A detailed budget for your GRG-R and a budget justification for the requested funds. If your project budget is more than \$3,000, prioritize your expenses and describe the source for the remaining project funding.
- (3) Proof of prior application(s) for external funding. This could be e-mail correspondence from the granting agency or a copy of the submitted proposal(s).

4.6.2. Geoscience Research Grant-Starter

GRG-S can be used to support any aspect of a student's research including, but not limited to field work, laboratory analyses, equipment, thin sections, and computing access. These grants are designed to help students begin his/her thesis research activities and to help students generate pilot data needed to help develop his/her Thesis Proposal and to compete for external funding.

Requirements for funding

GRG-S are available to first year MS and PhD graduate students that have not completed the requirements for candidacy. No prior application to external granting agencies is required.

Eligibility

MS students: MS students are eligible to receive one GRG-S. The maximum amount of funding for the GRG-S is \$500.

PhD students: PhD students are eligible to receive one GRG-S. The maximum amount of funding per grant for the GRG-S is \$1,000.

Application procedure

Applications for GRG-S are accepted at any time. Submit your application electronically as a Word document or PDF to the Graduate Program Director, Dr. Daniel Peppe at daniel_peppe@baylor.edu.

GRG-S applications must include:

- (1) A one-page summary of your research project that includes:
 - a. The goals and objectives of your GRG-S funded research.
 - b. The methods that you will employ to conduct your research.
 - c. The potential significance of your research and how the GRG-S will allow you to develop your thesis research project.

- (2) A detailed budget for your GRG-S and a budget justification for the requested funds. If your project budget is more than the maximum award, prioritize your expenses and describe the source for the remaining project funding.

4.6.3. Geoscience Research Grant-Education

GRG-E can be used for students to attend workshops, discipline-specific courses not offered at Baylor, research and field courses, conference travel, and other education-related activities. These grants are designed to help students further develop their research skills, to network with other researchers, and to assist with continuing education.

Requirements for funding

GRG-Es are available to all graduate students during their graduate career at Baylor.

Eligibility

MS students: MS students are eligible to receive one GRG-E. Maximum funding rates will be decided based on the cost of the activity, benefit to the student, and funding available to the student.

PhD students: PhD students are eligible to receive three GRG-Es. Maximum funding rates will be decided based on the cost of the activity, benefit to the student, and funding available to the student.

Application procedure

Applications for GRG-Es are accepted at any time. Submit your application electronically as a Word document or PDF to the Graduate Program Director, Dr. Daniel Peppe at daniel_peppe@baylor.edu.

GRG-E applications must include:

- (1) A one-page summary detailing the educational activity and why the activity is necessary for your thesis research and career development.

- (2) A detailed budget for your GRG-E and a budget justification for the requested funds. Prioritize your expenses and explain if any funding outside the GRG-E grant is available for the activity.
- (3) Detailed information about the education activity and your application to the program (if applicable).

4.6.4. James W. Dixon Undergraduate Field Assistant Award

Designation Purpose:

The James W. Dixon Undergraduate Field Assistant Award in Geology shall be used to provide a field-assistant award in the Department of Geosciences for undergraduate geology and geophysics majors. This award will subsidize the expenses of undergraduate students and allow them the opportunity to gain valuable experience while assisting Geology graduate students in their field research. The amount of the award will vary depending upon the specific costs associated with the student projects. Geology graduate students will propose the names of prospective undergraduate students to the Graduate Program Director of the Geosciences Department for consideration along with a preliminary budget for the field work associated with the thesis or dissertation project. The GPD will select one or more undergraduate students as recipients and their names would be reported to the Dixon family. Recipient(s) will be named the James W. Dixon Undergraduate Field Assistants and his/her name will be engraved on a brass tag and put on a plaque in the display cabinet in the main hallway outside of the Geosciences office.

Designation Recognition:

The James W. Dixon Undergraduate Field Assistant Award in the Department of Geology was established in 2006 by Dr. Jan Dixon, Executrix for the estate of Dr. James W. Dixon. Family members will honor Dr. Dixon's legacy in the field of geology by establishing The James W. Dixon Undergraduate Field Assistant Award in the Department of Geology because of the tremendous benefit this award has on undergraduate students such as providing support to graduate students who would otherwise have to conduct field work in remote areas by themselves without assistant support while also providing a mechanism to ensure undergraduate students have the opportunity to conduct and experience field work.

Application process for James W. Dixon Undergraduate Field Assistant Award

Eligibility requirements

- (1) The undergraduate Dixon Field Assistant must be a declared Geology or Geophysics major.
- (2) The research must have a component of field research.

The James A. Dixon Field Undergraduate Field Assistant Award will be awarded directly to the undergraduate.

Application procedure

Applications for the Dixon Field Assistant Award must be submitted by the graduate student with whom the undergraduate will be working and electronically to the Graduate Program Director,

Dr. Daniel Peppe at daniel_peppe@baylor.edu. Applications are accepted every academic year until April 30th.

Dixon Field Assistant Award applications must include:

- (1) A one-page summary about the research project on which the undergraduate student will be working and how the undergraduate student will benefit the project.
- (2) A brief fieldwork plan including information about where the fieldwork will be conducted, the approximate dates, and other participants in the fieldwork. As field plans can change, this plan can be tentative and subject to change.
- (3) A budget and budget justification for the undergraduate's expenses.
 - a. Expenses can include (but are not limited to) field expenses (food, lodging, travel) and equipment.
 - b. All money awarded from the Dixon Field Assistant Award must be used for expenses associated with fieldwork.

4.6.5. Other forms of internal support

Other Department of Geosciences funds are available to support thesis and dissertation research. To apply for these funds, students must complete an Application Form for Department Support form and submit it to the Department Chair for review and approval (<http://www.baylor.edu/content/services/document.php/111012.pdf> and Appendix 13).

Students applying for Department research support must apply for outside funding first and be a student in good standing. Students are eligible to receive this funding support once a year during their thesis or dissertation.

4.7. Conference Travel

Funding is available from the Graduate School and the Department of Geosciences to present research at professional conferences. Students can receive support twice a year (i.e., once in the fall semester and once in the spring semester).

Information for applying for conference travel funding from the Graduate School is available here: <http://www.baylor.edu/graduate/currentstudents/index.php?id=99418>

Students seeking financial support from the Department of Geosciences for presenting papers at professional meetings are required to submit a request for funding to the Chair for approval of support using the Request for Funding form (<http://www.baylor.edu/content/services/document.php/111012.pdf> and Appendix 13). Deadlines for support requests are at least one month prior to the professional meeting.

5. EQUIPMENT AND FACILITIES

5.1 Office Space

All students in residence will be provided office space. Office space will be assigned by the Office Manager and GPD and may change during a student's tenure in the graduate program.

5.2 Keys and Key Cards

Students will be issued key card access to the Baylor Science Building while they are enrolled in the graduate program. The BSB is unlocked during normal business hours and students can use their key card access outside of those hours. Students will also be issued key card access to the "Mohole" (BSB E418), which has departmental computers and a printer available for use. Key card access to other facilities and classrooms can be granted upon request to the Office Manager and approval by the student's Advisor. Students will also receive keys to access necessary laboratories and classrooms.

5.3 Access to the Carlile Geology Building

Access to Carlile Geology Research Building is permitted for all students by filling out a form that can be obtained from the Office Manager and must be signed by a Faculty sponsor. The Carlile Geology Research Building will be locked at all times and students using the facility must abide by Department and University regulations involving that facility.

5.4 Use of Department of Geosciences facilities

The Department of Geosciences maintains a number of analytical and computing facilities: <http://www.baylor.edu/geology/index.php?id=60967>. Computing facilities are available for all students to use (<http://www.baylor.edu/geology/index.php?id=61737>).

Laboratory facilities, instrumentation, and equipment requires faculty and/or staff permission and training before use. The laboratory facilities, instrumentation, and equipment may have specific individual rules and their use is at the discretion of the faculty and staff responsible for their use, upkeep, and maintenance. Students must seek permission prior to using laboratory facilities, instruments, or equipment from the appropriate faculty/staff member and must abide by their rules and training requirements at all times.

5.5 Safety training

Geosciences students who use the Department of Geosciences laboratories, instruments, equipment, and facilities are required to complete safety orientation and training activities coordinated by Baylor's Office of Risk Management. Those who do not complete the safety orientation and training activities will not be allowed to use equipment until they have been cleared by the departmental safety officer and Baylor Office of Risk Management. All students must follow all safety and health regulations.

5.6. Office supplies and photocopier

Students can use office supplies with permission of the Graduate Program Assistant. The Geosciences copier can be used for photocopying material associated with teaching responsibilities; however, the copier should not be used for personal use.

5.7 Departmental Vehicles

Students are not allowed to use Department of Geosciences vehicles without a faculty member present. All individuals who operate Department of Geosciences vehicles must complete Baylor Driver Training Course. While driving Department of Geosciences vehicles, drivers are required to obey all traffic laws. In the event of a citation for a traffic violation, students are responsible for paying the fine and explaining to the GPD and Department Chair why the violation occurred.

5.8 Mail

Each entering student is given a departmental mailbox in the "Mohole" (BSB E418). Mail delivered by USPS should be address to:

[Name]
Baylor University
Department of Geosciences
One Bear Place #97354
Waco, TX 76798-7354

Courier deliveries should be addressed to:

[Name]
Baylor University
Department of Geosciences
D409
101 Bagby Ave.
Waco, TX 76706

6 Appendices

Appendix 1: Department of Geosciences Graduate Faculty

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Appendix 1

Department of Geosciences Graduate Faculty

Faculty member	Home Department
Stacy Atchley	Geosciences
Peter Allen	Geosciences
Kenny Befus	Geosciences
Rena Bonem	Geosciences
Vince Cronin	Geosciences
Steve Driese	Geosciences
John Dunbar	Geosciences
Steve Dworkin	Geosciences
Joe Ferraro	Anthropology
Steve Forman	Geosciences
Jamey Fulton	Geosciences
Bill Hockaday	Geosciences
Julie Hogarth	Anthropology
Peter James	Geosciences
Scott James	Geosciences
Lee Nordt	Geosciences
Dan Peppe	Geosciences
Elizabeth Petsios	Geosciences
Jay Pulliam	Geosciences
Joe Yelderman	Geosciences
Joseph White	Biology
Ken Wilkins	Biology

**Appendix 2: Graduate Course Schedule Form
For Initial Advisement by Advisory Committee**

Student: _____ Date Entered Baylor: _____

Undergraduate Degree From: _____ Date: _____

MS Degree From: _____ Date: _____

Check the list below at the appropriate places to indicate what Geosciences courses you have taken. Indicate if course was taken during BS or MS degree. A copy of your academic transcripts will be attached to this form.

<u>Course</u>	<u>Course</u>	<u>Course</u>
_____ Physical Geology	_____ Historical Geology	_____ Mineralogy
_____ Invertebrate Paleontology	_____ Structural	_____ Petrology
_____ Geomorphology	_____ Sed. Petrology	_____ Petroleum
_____ Regional Geology	_____ Regional Tectonics	_____ Clay Mineralogy
_____ Hydrology	_____ Hydrogeology	_____ Field Methods
_____ Geophysics	_____ Seismology	_____ Exploration Geophys.
_____ Stratigraphy	_____ Field Strat	_____ Paleobiology
_____ Isotope Geochemistry	_____ Organic Geochem.	_____ Geomechanics
_____ Biostratigraphy	_____ Adv. Petrology	_____ Tectonophysics
_____ Volcanology	_____ Geochronology	_____ Engineering Geology
_____ Urban Geology	_____ Sum.Fld. Geol.	_____ Physics I & II
_____ Chem. I	_____ Chem. II	_____ Calc. I
_____ Calc. II		

Other related courses (please include complete course title):

Tentative Course Schedule

Please indicate below, a TENTATIVE list of courses you plan to take for the next two (2) years (4 semesters + summer). You are not bound by this listing at this time, but any change should be approved by your entire committee. See sections 2 and 3 of Graduate Program Handbook for more details.

Fall _____#Hrs.
GEO 5050- Geol. Tech. Session

Spring _____#Hrs.
GEO 5050- Geol. Tech. Session

Summer Course(s) _____

Fall _____#Hrs.
GEO 5050- Geol. Tech. Session

Spring _____#Hrs.
GEO 5050- Geol. Tech. Session

Summer Course(s) _____

Signature, Student

Date

Signature, Advisor or Advisory Committee Chair

Date

Appendix 3: Thesis /Dissertation Proposal and Defense Grading Rubric

Student's name: _____ Date: _____

Please circle one: Proposal Defense

Grade the defense in each of the following categories from 0 (worst) to 10 (best). A total score of 80 or higher signifies that you vote to pass the student on their proposal or defense. If the average score from all evaluation sheets is less than 80, the student will be required to reschedule a second proposal or defense.

- ___ Clarity of verbal communication
- ___ Quality and appropriateness of visual aids (more or less needed?)
- ___ Overall organization of presentation (Introduction, Results, Analysis, Conclusions)
- ___ Objective clearly stated
- ___ Significance of research clearly explained
- ___ Methodology clearly explained
- ___ Data are presented in a clear and organized fashion
- ___ Conclusions clearly stated
- ___ Data support conclusions
- ___ Questions answered in an accurate of professional manner

- ___ Total score

Comments:

Evaluating faculty member signature: _____

Evaluating faculty member printed name: _____

Appendix 4: Results of Preliminary Examination

RESULT of PRELIMINARY EXAMINATION

Name _____ ID# _____

Degree _____ Major _____

Date of Examination _____ Examination Result _____

Place _____

Signatures of Examination Committee Members:

Printed Names of Examination Committee Members:

Chairperson, Examination Committee

Chairperson, Examination Committee

Approved:

Signature, Graduate Program Director

Typed Name

Date

Signature, Graduate School Representative

Sherry G. Sims

Typed Name

Date

Appendix 5: Results of Annual Examination

Name _____ Year _____

Date of Examination _____ Examination Result _____

Goals for the upcoming year:

Signatures of Committee Members

Printed Names of Committee Members:

Chairperson, Examination Committee

Chairperson, Examination Committee

Approved:

Signature, Graduate Program Director

Date

Appendix 6: PhD Paper Approval Form

The Geosciences Department at Baylor University requires 3 papers for all PhD degrees (see Section 2).

Two of the papers must be accepted for publication, and the third submitted for publication, with the approval of the PhD Dissertation Committee (see section 2). All papers must be approved by the committee prior to their submittal to journals (see section 2). The Department of Geosciences is not asking committee members to edit the papers, but simply to approve them for submittal to journals (i.e., they should be “worthy” of submittal).

This is not a formal review because all committee members may not be in a specialty area in which they feel comfortable reviewing the scientific merits of these papers and the papers will eventually be reviewed by journal editorial boards and specialists. Please evaluate carefully the paper attached or enclosed and the intended journal, then respond within three weeks. If there are any reservations, please contact the PhD candidate and their dissertation advisor as soon as possible. Thank you for your time and effort.

Date Submitted to Dissertation Committee: _____

Article title:

Journal:

Please circle one:

Approved

Rejected

Default approval

Comments (if you recommend rejection, please give a brief explanation and contact the PhD candidate as soon as possible):

Signature: _____ Printed name: _____

Phone or email address: _____

Appendix 7: Announcement of Dissertation Oral Defense

Date _____

ANNOUNCEMENT of DOCTORAL ORAL EXAMINATION

➤ *Send to the Graduate School a minimum of 10 working days before the exam.*

Name _____ ID# _____

Candidate for the degree of _____ Major _____

Dissertation Title: _____

Date of Examination _____ Time _____

Place _____

Examination Committee: _____ Chairperson
(Typed Names)

_____ Outside Graduate Faculty Representative

Note: The committee will consist of a minimum of five Graduate Faculty members, including one Graduate member from outside your department

Approved:

Signature, Dissertation Chairperson

Typed Name

Date

Signature, Graduate Program Director

Typed Name

Date

Signature, Graduate School Representative

Sherry G. Sims
Typed Name

Date

Appendix 8: Doctoral Oral Examination Form

RESULT of DOCTORAL ORAL EXAMINATION

Name _____ ID# _____
Degree _____ Major _____
Date of Examination _____ Examination Result _____
Place _____

Signatures of Examination Committee Members:

Printed Names of Examination Committee Members:

Chairperson, Examination Committee

Chairperson, Examination Committee

Outside Graduate Faculty Representative

Outside Graduate Faculty Representative

Approved:

Signature, Graduate Program Director

Typed Name

Date

Signature, Graduate School Representative

Sherry G. Sims

Typed Name

Date

Appendix 9: Schematic timeline to PhD for incoming students

Timetable for Completion of Ph.D. Degree Requirements

	Year 1			Year 2			Year 3			Year 4			Year 5			Year 6			
	Fall	Spr.	Sum.																
Graduate coursework	—————			—————			—————												
Grant-writing course	—————																		
Submittal of small grant and/or major proposals	—————			—————			—————												
Dissertation proposal and defense		◆																	
Progress report and examination		◆			◆			◆			◆								
Dissertation field/lab work			———			———			———										
Paper 1								———	———										
Submit																			
Revise																			
In-Press																			
Paper 2										———	———								
Submit																			
Revise																			
In-Press																			
Paper 3													———	———					
Submit																			
Revise																			
In-Press																			
Defend Ph.D. dissertation														◆					

Appendix 10: Announcement of MS Oral Examination

Date _____

ANNOUNCEMENT of MASTER'S ORAL EXAMINATION

➤ *Send to the Graduate School a minimum of 10 working days before the exam.*

Name _____ ID# _____

Candidate for the degree of _____ Major _____

Thesis (Yes or No) _____

If Yes, Thesis Title: _____

Date of Examination _____ Time _____

Place _____

Examination Committee: _____ Chairperson
(Typed Names)

_____ Outside Graduate Faculty Representative

Note: The committee will consist of a minimum of three Graduate Faculty members, including one Graduate member from outside your department.

Approved:

Signature, Thesis Chairperson

Typed Name

Date

Signature, Graduate Program Director

Typed Name

Date

Signature, Graduate School Representative

Sherry G. Sims
Typed Name

Date

Appendix 11: Masters Oral Examination Form

RESULT of MASTER'S ORAL EXAMINATION

Name _____ ID# _____
Degree _____ Major _____
Date of Examination _____ Examination Result _____

Signatures of Examination Committee Members:

Printed Names of Examination Committee Members:

Chairperson, Examination Committee

Chairperson, Examination Committee

Outside Graduate Faculty Representative

Outside Graduate Faculty Representative

Approved:

Signature, Graduate Program Director

Typed Name

Date

Signature, Graduate School Representative

Sherry G. Sims
Typed Name

Date

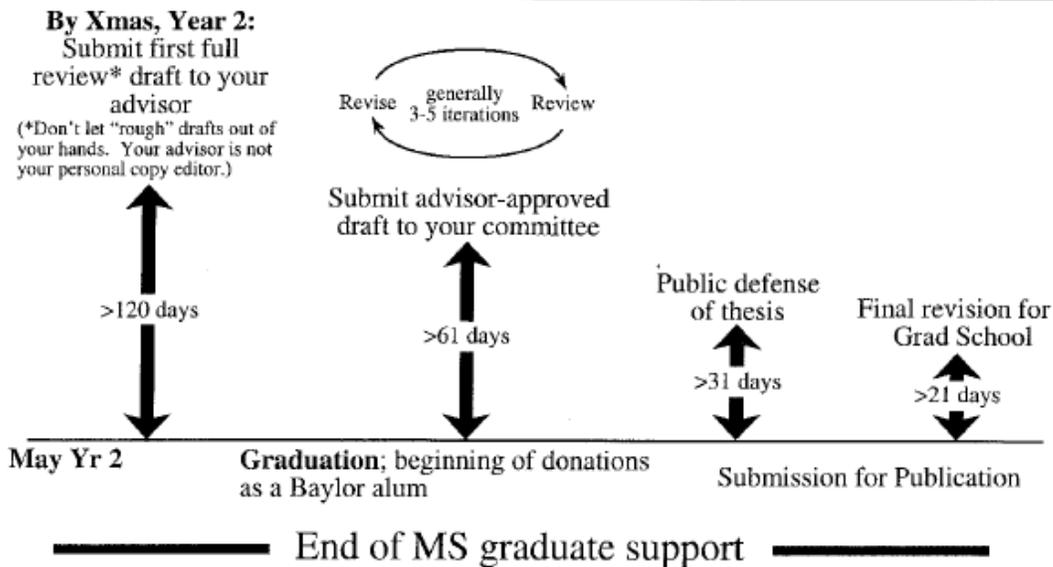
Appendix 12: Generalized timeline for completion of MS degree

**Generalized Timeline for Completion of MS Degree
from Baylor Geology Department**

First semester in residence	Start of graduate career (August) Meeting with potential/actual advisors to discuss possible thesis topics. The topic should interest you and your advisor. Initial background research Decision about advisor, thesis topic, committee
------------------------------------	--

No Later Than Spring Yr 1	Formal proposal of MS research to faculty, with approval Thesis Research background research continuous literature review compile reference list investigation of funding sources seek funding lab work tabulate data analysis field work making maps and illustrations Write sections as you go: methods, purpose, results
----------------------------------	--

Summer	Prepare & submit abstract of preliminary results for professional meeting
Fall Yr 2	Presentation of preliminary results at professional meeting
	Identify target publications for your paper



Appendix 13: Application Form for Departmental Support

Application Form for Departmental Support Thesis support deadlines September 15th and April 15th

Name: _____ Date: _____ Student ID: _____
Last First M.I.

Student Signature: _____ Supervisor Signature: _____

Request for: _____ Thesis/Dissertation Support _____ Travel _____ Special _____
(circle one)

Rationale:

If for thesis/dissertation work, please list the title of the project from your thesis/dissertation proposal:

List the agencies that you have applied to below, and the amounts requested:		Supervisor initials
_____	\$ _____	_____
_____	\$ _____	_____

Budget:

Dept Action: approved not approved || Dept Chairman: _____ || Amt Awarded: \$ _____