



TEXAS TECH UNIVERSITY

Department *of* Geosciences

Graduate Student Handbook PhD in Geosciences (Solid Earth)

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Dear Graduate Student,

This document describes the academic requirements and recommended timelines for completion of a PhD, with specialization in Solid Earth Geosciences at Texas Tech University.

Admitted students should associate themselves with a faculty member by the end of their first semester in residence. This Faculty member is expected to serve as the student's principal advisor and will be responsible for supervising a student's degree program.

The Graduate Committee in the Department of Geosciences is committed to helping you navigate the program. However, ultimately individual students are responsible for making timely progress in the program and being aware of the benchmarks to be met, and the timeline for their completion.

Department policies for the completion of graduate degrees are generally based on general Graduate School requirements, it is therefore important that Graduate degree seeking students familiarize themselves with the over-arching requirements of the Graduate School, and remain up-to-date on changes in Graduate School policies and deadlines, which vary from semester to semester. To assist you with complying with various Graduate School requirements, important web-site links are provided below:

[The Graduate School \(http://www.depts.ttu.edu/gradschool/\)](http://www.depts.ttu.edu/gradschool/)

[Graduate School guidelines for students pursuing a Doctor's degree \(http://www.depts.ttu.edu/gradschool/academic/Doctoral_Students.php\)](http://www.depts.ttu.edu/gradschool/academic/Doctoral_Students.php)

Graduate Committee
Department of Geosciences
Texas Tech University

Doctoral Program in Geosciences: Guidelines

For additional information, the reader is referred to the TTU Graduate Catalog (<https://catalog.ttu.edu/content.php?catoid=13&navoid=1333#doctoral-program>).

1. ADMISSION TO PROGRAM

Admission to all graduate degree programs at Texas Tech University is granted by the Dean of the Graduate School with the recommendation of individual programs. Prospective students should contact program coordinators in their area of specialization for more information (<https://www.depts.ttu.edu/geosciences/>). Students interested in the Ph.D. in Geosciences should register their interests via the Graduate School on-line admissions portal (<https://choosegrad.ttu.edu/inquire>).

2. ENROLLMENT & COURSE WORK

- i. A student must be enrolled a minimum of 9 credit hours each long semester to be considered a full-time PhD student, but up to 13 hours may be taken if appropriate and necessary. Unless otherwise stipulated, PhD students on University funded fellowships, assistantships, or other appointments must be enrolled in a minimum of 9 hours in each long semester and 3 hours in each summer session, for which funding is awarded.
- ii. A minimum of **72 credit hours** are required to be eligible for graduation. Doctoral students must have completed a minimum of **48 credit hours** of named/titled course work as part of their degree plan (e.g. not GEOL 7000 Research or GEOL 8000 Dissertation). Of these 48 hours, a minimum of **12 credit hours** must be completed within the Department of Geosciences at Texas Tech University. A minimum of **6 credit hours**, which are included in the 36 hours of Elective coursework, must be earned in a tool subject approved by the Graduate Program Director (GPD) in conjunction with a student's primary supervisor and dissertation committee. Students must also complete a minimum of **12 credit hours** of GEOL 7000 Research and **12 hours** of GEOL 8000 Dissertation credit.
- iii. A student who has earned a MS degree at Texas Tech or another institution may apply to have up to **30 credit hours** transferred to their PhD degree plan. The course equivalencies are evaluated by the Graduate School with input from the dissertation advisor and GPD. Contact Graduate Program Director (GPD) for course transfer.
- iv. To be eligible to enroll in GEOL 8000 Dissertation credit hours, a PhD student must have successfully completed their *Comprehensive Examinations*. After enrolling in Dissertation hours (GEOL 8000) a doctoral candidate is subject to continuous enrollment (see p7).

Summary of Requirements for the PhD degree:

Required Coursework in Department of Geosciences	
+ GEOL 5101 Graduate Seminar	12 hours
Elective courses*	36 hours
GEOL 7000 Research	12 hours
<u>GEOL 8000 Dissertation</u>	<u>12 hours</u>
Total	72 hours

* 6 hours of tool classes must be taken

3. SEMESTER BY SEMESTER BENCHMARKS

For detail, visit the Graduate School website:

http://www.depts.ttu.edu/gradschool/academic/Doctoral_Students.php

First long semester in residence.

- i. Incoming students will confirm the faculty member (the *faculty advisor*), who to serve as a dissertation advisor.
- ii. In consultation of a dissertation advisor, the student must prepare an outline of courses to be taken during their Ph.D. program based on the Graduate Course rotation list.

Second long semester in residence.

- i. The student, in collaboration with their primary supervisor, will identify a research subject and a preliminary dissertation committee. It is the student's responsibility to formally approach perspective committee members and invite them to serve of their committee.
- ii. Before the end of the 1st full year, the student will prepare and submit a pre-proposal to their committee. The committee will evaluate the quality of the pre-proposal. The faculty advisor will report results of their evaluation and committee discussion to the student's progress to the Graduate Program Director (GPD).

Fourth long semesters in residence.

- i. The student will formalize the dissertation topic and committee. Under normal circumstances, the committee should consist of a minimum of 3 members, including the faculty advisor.

Dissertation Committee: The chair should be a member of the Graduate Faculty within the Department of Geosciences at Texas Tech University. External individual with documented expertise and experience in the field of research can serve as committee members. External member must be approved by the Graduate Dean.

- ii. Before the end of the 2nd full year, the student will write and orally present a full research proposal on the chosen research topic to the dissertation committee.

A general format of a full dissertation proposal:

- Standard, single-column format for the text with margins of an inch in all directions.
- Fonts: Times New Roman at a font size of 11 points or larger. Arial, Courier New, or Palatino Linotype at a font size of 10 points or larger. A font size of less than 10 points may be used for mathematical formulas or equations, figures, table or diagram captions.
- A total length of approximately 15 pages including figures, tables, timeline and basic budget, but excluding references

Fifth long semesters in residence.

- i. The committee will evaluate the quality of the proposal and of the student's oral presentation. At this time, the committee will determine whether the student should continue in the Ph.D. program and progress to the *Comprehensive Examination* stage. The outcome of the committee discussions on the full proposal should be communicated to the GPD.

If the committee decides that a student should not progress to the Comprehensive Examination, the student will be informed in writing by the chair of the dissertation committee in consultation with the other members, who will describe the options available to the student.

- ii. In consultation with the dissertation committee, the student should finalize all graduate course work, including a request to transfer course credit from previous degree(s) as appropriate.

4. COMPREHENSIVE EXAMINATION

The purpose of the *Comprehensive Examination* is to determine whether the student has the appropriate background in, and understanding of, their chosen research field and whether research on their dissertation topic should continue. *The Comprehensive Exam should be completed by the end of the fifth long semester in residence.* Follow-up and remedial processes of this stage may extend to the sixth long semester.

- i. A revised full research proposal should have been received and approved by a student's Dissertation Committee. It is recommended that the final proposal includes documentation such as a work plan and research budget.
- ii. After review of the proposal each dissertation committee member will submit question(s) to be asked as part of the written component of the Comprehensive Exam. The exam will be administered by the dissertation advisor. The exam should last no less than 6 hours (as per the Graduate School guideline), and its length should be agreed upon in advance by the student in conjunction with his/her supervisor and Committee members. Each member of the Dissertation Committee should be allotted a minimum of

2 hours (Graduate School guideline) to administer their portion of the written Comprehensive Exam.

- iii. The entire Committee may read the student's answers to the written exams. The dissertation committee will consult and determine if the student has performed to an appropriately high standard to merit advancement to the oral component of the exam, which will be scheduled no more than two weeks after the written exam.
- iv. The dissertation advisor will supervise the oral exam. The format of this exam should be agreed upon by the advisor, the dissertation committee, and the student at least one week in advance of the oral exam.
- v. If the student passes the written and oral parts of the Comprehensive Exam, the GPD will submit forms to the Graduate School recommending advancement to candidacy.

Should the student not pass the written exam or the oral exam, the committee will file a written report with the GPD and Department Chairperson, recommending either:

- a) Dismissal from the program, or
- b) A plan of remedial action and a date for re-examination.

According to Graduate School regulations, re-examination must occur in a time period no sooner than four months and no later than twelve months after the original exam.

If the above benchmarks, including writing and defending pre-proposal and proposal, and passing the Comprehensive Examination, have not been met on the schedule, then your funding support may be reconsidered by the Department.

5. PHD'S DISSERTATION

For detail, visit the Graduate School website:

http://www.depts.ttu.edu/gradschool/academic/Doctoral_Students.php

- i. Upon completion of the PhD Candidacy, students may start enrolling in GEOL 8000 – Dissertation
- ii. Expected Semester of Graduation: Approximately 2 months prior to the start of their intended semester of graduation, the student will ensure that their expected semester of graduation in their enrollment services account is accurately listed.
- iii. Apply to Graduate: Students should inform the Graduate School of their intent to graduate as per Graduation schedule deadlines for anticipated semester of graduation. This deadline is approximately within couple of weeks after the start of the semester of graduation.
- iv. Upon submission of an intent to graduate (Apply to Graduate) the Graduate School will initiate a degree audit, and a series of forms becomes due, including defense notification. It is the student's responsibility to ensure that the degree audit is successful and other required forms are successfully submitted.

- v. Defense Notification. At least 3 weeks prior to your defense date, students initiate Defense Notification form that has to be submitted by their department.
- vi. Dissertation should be prepared and formatted according to the guidelines provided by the Graduate School. Templates are available from the website describing the Electronic Dissertation Submission process.
- vii. Complete copies (text with all figures and illustrations) should be distributed to all committee members at least two weeks prior to the date of the dissertation defense. Templates are available from the website (https://www.depts.ttu.edu/gradschool/academic/thesis_diss/forms/TDforms.php)
- viii. Announcements of the time and place of the defense should be posted around the department two weeks prior to the defense date.
- ix. The Graduate Program Director (GPD) may select a member of the Graduate Faculty to chair their dissertation defense. The chair of the defense is an impartial participant in the process and is responsible for introducing the candidate before their public presentation, and chairing the two portions of the question and answer session. The chair's primary role is to ensure a fair and impartial discussion occurs between the candidate, audience and dissertation committee.
- x. The dissertation defense has two parts. First, the candidate will make a public presentation of their dissertation research. The presentation should be approximately 40-50 minutes in length, followed by the audience's questions. Thereafter the candidate is examined by members of the dissertation committee and members of the Graduate Faculty.
- xi. Submit *Oral Defense and Dissertation-Dissertation Approval Form* with committee signatures.
- xii. After dissertation approval, the document should be appropriately formatted and submitted to the Graduate School for archiving in the Texas Tech libraries

Continuous Enrollment requirements

- Students who have begun doctoral dissertation (GEOL 8000) must enroll in at least 3 credit hr. of GEOL 8000 every semester and at least 1 credit hr in one summer session until their term of graduation. A student may apply for an off-campus exemption, requiring only 1-hour of enrollment.
- In the semester of their dissertation defense and graduation, doctoral students must be registered for 3 credit hours of GEOL 8000.

PH.D. Program Timeline

STEP 1. DURING FIRST LONG SEMESTER.

- Identify dissertation advisor and form preliminary dissertation committee.

STEP 2 DURING SECOND SEMESTER

- Finalize dissertation topic
- Before the end of 1st full year, prepare and submit a pre-proposal to a dissertation committee.

STEP 4. DURING FOURTH LONG SEMESTER.

- Finalize dissertation committee
- Before the end of the 2nd full year, write and orally present a full research proposal on the chosen research topic to the dissertation committee.

STEP 5. FIFTH SEMESTER.

- Submit final dissertation proposal for dissertation committee approval.
- Complete Comprehensive Exam (written & oral) and advance to Candidacy

STEP 6. SIXTH TO EIGHTH SEMESTER.

- Begin enrollment in GEOL 8000: Dissertation and fulfill continuous enrollment requirements
- Complete dissertation research activities and write dissertation
- Submit, in regular order, the appropriate documentation to fulfill graduate requirements of the Graduate School: *Apply to Graduate, Defense Notification Form* (check deadline on Graduate School website). Note: defense notification form requires a Dean's representative to be selected prior to submission.
- Two weeks prior to defense post announcements in the department
- Stand for Defense
- Submit *Oral Defense and Dissertation-Dissertation Approval Form* to graduate school with signature of all committee members (Check deadline on Graduate School website)
- Revise dissertation as directed by the committee
- Pay dissertation-dissertation fee
- Submit pdf of dissertation on ETD