



BOB L. HERD

DEPARTMENT OF **PETROLEUM ENGINEERING**

TEXAS TECH

Whitacre College of Engineering

*Doctoral Program
Handbook*

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Welcome:

Welcome to the Bob L. Herd Department of Petroleum Engineering at Texas Tech University. This handbook contains information that is essential to your success in this department. You are responsible for becoming familiar with this handbook and following the instructions provided. This handbook aims to answer questions that you may have throughout your time in this department.

This handbook clarifies the policies, procedures, and guidelines for completing the Ph.D. degree in Petroleum Engineering. Policies regarding various aspects of graduate student activities are established to protect students as well as to maintain the high standards of the program.

Compliance with stated policies, procedures, and guidelines is the responsibility of the student, and failure to do so may result in suspension, probation, or delay in graduation. The policies stated herein supplement those for the Graduate School at Texas Tech University and do not in any way supersede those standards already documented. Students are encouraged to become familiar with the policies and those published in the Graduate Catalog, available at: <http://www.depts.ttu.edu/officialpublications/catalog/index.php>

If you have further questions, please contact the Graduate Advisor or the Academic Administrative Coordinator.

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University Academic Regulation

1. Full-time study

All graduate students are required to be enrolled in spring and fall semesters. Students with assistantships or other appointments (TA, RA) are required to keep full-time status in fall, spring, and both summer sessions. This requirement means that students that are RA's or TA's must be enrolled in 9 hours during the fall and spring and 6 hours over the summer sessions.

Full-time is considered for long semesters to be between 9-16 credit hours and 6 credit hours for summer.

2. Continuous Enrollment- O.P. 64.02

Students who have begun thesis or dissertation research must register for PETR 8000 courses, respectively, in each regular semester and at least once each summer until all degree requirements have been completed unless granted an official leave of absence from the program for medical or other exceptional reasons. Students officially classified as off-campus students may register for 1 hour of 8000 with departmental approval until their final semester, at which time they must enroll in at least 3 hours.

3. Leave of Absence

Any student who fails to register during a fall or spring semester and who does not have an official leave of absence form is subject to review for readmission by the standards in effect at the time of reconsideration. Official leave of absence, which is granted by the Dean of the Graduate School upon department recommendation, may be requested only in case of serious medical conditions and other exceptional reasons. Normally, leaves of absence will not exceed one year. Leaves of absences do not extend the maximum time allowed for completion of the degree.

4. Required Dissertation Hours

Registration for at least 12 hours of PETR 8000 is required for a doctoral dissertation. Once the project has begun, a student must be enrolled in such courses every semester and for at least one term during the summer until completion. A student should enroll under the committee chairperson; however, in those instances in which other professors on the committee are making a substantial contribution to the student's research, it is permissible for the student to enroll proportionally under those professors.

Students certified as off-campus may enroll for as little as 1 hour until their final semester, at which time 3 hours minimum is required.

Students may not enroll in thesis or dissertation courses before the formal admission to a degree program by the graduate dean.

Enrollment for thesis or dissertation courses is permitted only during a regular registration period. Students away from the campus may, however, register for such courses by mail, provided arrangements are made with the registrar's office, by telephone or electronically before the beginning of a registration period.

Students are required to register for appropriate courses every semester or summer term in which they are expected to receive assistance, use the facilities of the university, or take comprehensive examinations.

The number of hours for which students must enroll each semester depends on their level of involvement in research and their use of university facilities and faculty time. Students in residence who are devoting full time to research should enroll for 9 to 12 hours.

5. Registration in the Semester of Graduation

There are 3 official graduation dates: December, May, and August. Every candidate for a graduate degree must be registered in the session of graduation. Students must be registered for at least 3 hours of coursework at the 8000 level (doctoral students) or they must register for 1 hour of non-thesis coursework at the 7000 level (individual study) if all requirements are met.

Failure to graduate at the expected time requires such additional registrations. A new "Statement of Intention to Graduate" is required for each semester.

6. Maximum Allowable Doctoral Hours

Students not making timely progress toward completion of the doctoral degree are subject to termination by the graduate dean. The Texas Legislature has capped fundable graduate study at 99 doctoral hours for most programs and may impose sanctions upon universities permitting registration for excess hours. Graduate students with more than 99 doctoral hours will be required to pay out-of-state tuition, regardless of residence status. The maximum time allowed for completing a doctoral degree is EIGHT years from the first doctoral semester or FOUR years from admission to candidacy, whichever comes first. The graduate dean must approve exceptions or extensions in advance.

7. Academic Probation and Suspension

Every student enrolled in the Graduate School, whether working toward a degree or not, is required to maintain a high level of performance and to comply fully with the policies of the institution. The Graduate School reserves the right to place on probation or suspend any post-baccalaureate or graduate student who does not maintain satisfactory academic standing or who fails to conform to the regulations of the university.

Students whose cumulative graduate GPA falls below 3.0 are placed on academic probation and have two consecutive terms to raise their cumulative GPA to at least 3.0 to avoid academic suspension from the Graduate School. If their semester GPA drops below 3.0 during the two-semester period, students are subject to academic suspension from the Graduate School. If their cumulative graduate GPA remains less than 3.0 and their term GPA is greater than 3.0 in the next term, they are placed on continued probation. If the student's overall GPA remains below 3.0 in the following term, they are placed on academic suspension. In accordance with OP 64.07 (found on page 11 in the appendix), any student who has been suspended must appeal to the Graduate School if reinstatement is desired. A student who is suspended twice will not be allowed to return to the Graduate School. Students may be suspended for unprofessional conduct such as cheating or plagiarism. Any appeal of such action is subject to the provisions of the Code of Student Conduct.

If a student's GPA falls below a 3.0 GPA due to an extenuating circumstance, they must let their faculty advisor know. The faculty advisor will notify the graduate committee who will review the circumstances and decide on what exceptions to make for the student.

Graduate Financial Aid & Scholarships

All PhD students are required to be funded from an outside source prior to enrollment. Examples include company scholarships, sponsorships through government agencies or country, guaranteed self-funding, or a pre-offered research assistantship (RA) or teaching assistantship (TA). There are various financial aid possibilities available to graduate students who decide to enroll in the graduate program at Texas Tech University. Four sources of financial support exist in the department:

1. Teaching Assistantship (TA)

Teaching Assistants are required to be full-time students and are required to take online Lab Safety training, EEO, FERPA training, and attend an International Teaching Assistant Workshop for international students as well as attend safety briefing. Students are appointed for three years but are regularly assessed on their performance and may be terminated before the three years if the TA is not performing adequately or not making substantial progress toward their degree, for instance, the TA has not passed the Ph.D. qualifying exam after two full semesters. TA's are also required to maintain a 3.5 GPA. If a TA falls below a 3.5 GPA, they will have one semester to bring it back up. If they fail to do so, they will be at risk of losing their TA position. TA positions are preferably assigned to Ph.D. students. TA's are expected to work 20 hours a week on the course that they are assigned. TAs will be evaluated on their performance every semester. If TA's have two or more unsatisfied evaluations, they will be terminated from their position. Information about tuition and fee exemptions for TA's can be found here:

<https://www.depts.ttu.edu/opmanual/OP62.40.php>.

2. Research Assistantship (RA)

These positions depend on the research activity in the department. Faculty who have funded research projects may need help and offer positions to qualified graduate students to help the project managers complete their projects. RA's are expected to work 20 hours a week on the course that they are assigned. Information about tuition and fee exemptions for RAs can be found here: <https://www.depts.ttu.edu/opmanual/OP62.40.php>.

3. Scholarship/Fellowship Opportunities

Various scholarships are available at different levels in the university (COE, graduate school, etc.) Graduate students need to apply for these scholarships through the scholarship office (<https://www.depts.ttu.edu/scholarships/>). Even though the amount of money varies from one type of scholarship to the next, all students are urged to apply as soon as they join the graduate program.

4. Part-time Jobs

The Petroleum Engineering Department also occasionally has opening for graders. Finally, numerous part-time job opportunities exist on campus and outside. The fast-growing City of Lubbock allows for many part-time job opportunities in various fields.

Doctoral Program

All Ph.D. Students must maintain a cumulative GPA of 3.0 to stay in the program.

The graduate school outline of the major required steps for the Doctoral Degree is found on Appendix page 2. The faculty and staff are committed to helping you navigate the program. However, 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.

Advisor

Students are highly encouraged to select a Faculty Advisor before beginning their first semester. Newly admitted students are required to meet with the Academic Administrative Coordinator for registration every semester.

Each student will choose a primary Faculty Advisor, with the agreement of the faculty member, and is expected to submit the *Student-Advisor Commitment Form* at the end of the first month of their matriculation and report this advisor to the department Academic Administrative Coordinator.

Once a faculty member accepts the student as an advisee, a *Student-Advisor Commitment Form* (Appendix page 3) must be signed by the student, the Faculty Advisor, and the Graduate Advisor. This form will be turned into the Academic Administrative Coordinator. **If the form is not on file, the student will not be granted permits to register for PETR 7000 or 8000 courses.**

If a change of Advisor is facilitated by either the student or current advisor, the Graduate Committee, current advisor, student, and new advisor must be informed, and a new *Student-Advisor Commitment Form* must be submitted.

Dissertation Committee Selection

The dissertation committee should consist of at least three members in addition to the committee chair (faculty advisor). At least two of these three members should be a faculty member with a full-time appointment in the Petroleum Engineering Department. All committee members should hold a tenured or tenure-track faculty position or a graduate faculty position at Texas Tech. Occasionally, a dissertation committee could include an additional member from industry, national laboratory, or academia other than those listed above. This additional committee member must hold a Ph.D. degree in engineering or science and should be approved by the Graduate Advisor and the Graduate

School. For this purpose, the dissertation committee chair (the faculty advisor) should provide a one-paragraph justification for the need to select a committee member from outside of Texas Tech.

COURSEWORK REQUIREMENTS

Typically, students join the Ph.D. program after completing an MS degree in petroleum engineering. However, some students may be accepted into the program immediately after they finish their BS in petroleum engineering or equivalent. The requirements for both categories of students are the same except the course load is different. Students with an MS in Petroleum Engineering may transfer up to 24 credit hours from their previous degree to the Ph.D. All students will graduate with a total of 72 credit hours. However, a maximum of 24 credit hours may be credited toward the total 30 hours as equivalent to their MS degree. These 24 credit hours should be transferred from the student's previous MS degree to their Ph.D. program. To avoid overlap between transferred courses and TTU courses, the student needs to specify the correspondence between the previously taken MS courses and the actual Ph.D. courses. The transferred courses need to be decided and justified with the ***approval of the graduate advisor and the Graduate School.***

A typical break-up of the total minimum number of 72 credit hours of courses toward completing the degree plan should be as follows:

PhD Curriculum Breakdown

Core Courses:	12 credit hours (minimum)
Electives:	18 credit hours (minimum)
Research/7000:	30 credit hours (maximum)
Dissertation/8000:	12 credit hours (minimum)
Seminar courses:	Non-credit

72 credit hours

Courses

The curriculum is organized into four petroleum engineering courses that denote the teaching and research concentration of the faculty. Doctoral students are required to take 4 core courses. The doctoral degree plan should include at least one course in each core area:

Drilling Engineering:

- PETR 5303- Advanced Drilling Techniques
- PETR 5315- Horizontal Well Technology

Production Engineering

- PETR 5316- Advanced Production Engineering
- PETR 5317- Well Completion and Stimulation

Reservoir Engineering:

- PETR 5308- Pressure Transient Analysis
- PETR 5320- Advanced Reservoir Engineering

Formation Evaluation:

- PETR 5304- Advanced Well Log Analysis
- PETR 5305- Advanced Formation Evaluation

Every student is required to register for PETR 5121 the first semester of enrollment. However, students are required to attend the graduate seminar (PETR 5121) each semester. This is a **mandatory** one-hour non-credit course offered each long semester in the department. Students should notify their graduate advisor **immediately** when receiving a grade of C, D, or F and before dropping a course, or when withdrawing from the university, to gain a full understanding of the implications and develop a plan for the future. See Graduate School section of the catalog for academic standing rules. By the department policy, one C in a course will result in a warning. One D or lower or two C's will result in the student being placed on Probation. Any ***substitutions for courses must be approved by the Graduate Advisor and must be recorded through written means (email).***

The PhD degree cannot be completed online and must be done in person. Students cannot take online courses in the department.

To register for PETR 6300, 7000, or 8000, you will need a permit from the academic administrative coordinator. In order to get a permit, you will need permission from your faculty advisor. **PETR 6300 can only be taken twice and can only count towards your degree twice. For an exemption you will need permission from your faculty advisor and the graduate committee.**

Core Courses: As shown above, the curriculum is divided into 4 areas of study with at least one core course for each area (may use transfer credits to fulfill this requirement).

Electives: The remaining credit hours should be elective courses. Committee Chairs may make course recommendations for students outside of the department to further develop the student's skills in specific areas. ***These courses must be approved by the Academic Advisor to count toward degree plan elective hours. Engineering ethics (ENGR 5392) will not be counted towards the degree.***

Course descriptions can be found on the online catalog

<https://catalog.ttu.edu/content.php?catoid=9&navoid=987>

Core Area	Core Courses	Core Courses
Reservoir Engineering	Advanced Reservoir Engineering PETR 5320	Pressure Transient Analysis PETR 5308
Production Engineering	Advanced Production Engineering PETR 5316	Well Completion Stimulation PETR 5317
Drilling Engineering	Advanced Drilling Techniques PETR 5303	Horizontal Well Techniques PETR 5315
Formation Evaluation	Advanced Well Log Analysis PETR 5304 *Pre-req for PETR 5305	Advanced Form Evaluation PETR 5305

Core Area	Elective Courses	Other Elective Courses
Reservoir Engineering	Hydrocarbon Reservoir Simulation PETR 5309	Advanced Simulation Techniques PETR 5310
	EOR PETR 5307	Waterflooding Techniques PETR 5325
	Advanced Phase Behavior PETR 5323	Thermal Oil Recovery PETR 5311
	Adv. Core Analysis PETR 5329	
Production Engineering	Hydrocarbon and CO2 Process Engineering PETR 5318	Multiphase Flow in Pipes PETR 5319
	Advanced Artificial Lift Methods PETR 5306	Nodal Analysis PETR 5314
Formation Evaluation	Geostatistics for Reservoir Engineering PETR 5324	Advanced Property Evaluation PETR 5328
Computational Modeling and Simulation	Numerical Application in Petroleum Engineering	Simulation of EOR Applications PETR 5312

Please note that not all the listed electives will be given each year. Students who do not have a degree in petroleum engineering will be required to take four leveling courses before they can take advanced PETR courses (PETR 5304, PETR 5380, and PETR 5381, you will have the choice to choose PETR 5383 **or PETR 5385 as one of your leveling courses); these hours will be applied toward the required 72 hours for the PhD.**

PETR 7000 RESEARCH COURSES

Students will register for the PETR 7000 research course with their faculty advisor (who must be tenured or tenure track) after passing the Qualifying Examination (QE) and no later than their proposal defense. No more than 30 hours of research may be applied to the student's degree plan.

Students are REQUIRED to submit 1 abstract to a conference approved by their advisor each long semester they are enrolled in PETR 7000 in order to receive credit.

PETR 8000 DISSERTATION COURSES

Students are expected to start registering for the PETR 8000 dissertation courses with their faculty advisor (who must be tenured or tenure track) as soon as they defend their proposal. The total number of PETR 8000 courses should not be less than 12 credit hours, 3 of which must be taken during the same semester in which the dissertation is defended.

Students are REQUIRED to submit 1 abstract to a conference approved by their advisor each long semester they are enrolled in PETR 8000 in order to receive credit.

Departmental Requirements

Students are expected to participate in the seminar course PETR 5121. Students are **required** to give at least one presentation in PETR 5121 prior to publications or dissertation proposals. The dates and topics of these presentations will be decided in coordination with their respective dissertation advisors.

Students are highly encouraged to attend at least two workshops put on by the graduate writing center or the graduate school. Visit the Graduate School website for more information about workshops: <https://www.depts.ttu.edu/gradschool/>.

Students are ultimately responsible for the completion of their degree. The graduate school's outline of the major required steps for the Doctoral Degree is found on appendix page 2. It is the responsibility of the student to make sure that all the steps are completed on time and in the appropriate manner.

Students are required to have at least two publications or papers accepted to a journal or conference (or a patent if the office of commercialization says it qualifies/if the university files it for you) with the cumulative rating of 10 or higher and approved by their faculty advisor before their defense is scheduled.

If a student publishes a conference or journal paper during their MS degree, it **will not** be counted towards the PhD publication requirements. Please see appendix with rating system and approved journals and conferences. You may also consult your faculty advisor to see which journals are acceptable to publish in.

QUALIFYING EXAMINATION

The guidelines for students sitting for the qualifying exam (QE) are as follows:

The qualifying exam is comprised of 4 sections consisting of reservoir engineering (RE),

production engineering (PE), drilling engineering (DE), and formation evaluation (FE). Typically, the QE will be given over the course of two days at the beginning of each long semester with each of the sections lasting four hours.

A student who publishes a journal paper (rank of 4 or 5) within 2 long semesters of matriculation and has over a 3.7 GPA will be exempt from taking the qualifying exam. **The journal paper must be reviewed and approved by your faculty advisor and the graduate advisor before exemption will be granted.** Students who do not meet this criteria will still take all 4 sections of the qualifying exam within the 2 semesters of matriculation. Students are required to sit for the QE **within 2 long semesters of matriculation or meet the criteria above.** If the student does not sit for the QE within 2 long semesters of joining the program, or fit the criteria listed above, this will result in an automatic FAIL. Students with an MS from a another institution must sit for the QE after 1 long semester. Students with an MS from Tech must sit for the QE immediately after joining the program.

The QE will be offered twice a year, once in January and once in August.

1. Any Ph.D. Candidate who fails any section(s) of the QE during the first sitting is required to sit for the QE during the very next session offered in the department. The Candidate will be given the chance to retake the section(s) he or she failed and will not be required to take any sessions passed during the original QE. ***If the student does not sit for the next offered QE this will result in an automatic FAIL (unless due to a University accepted excuse or excuse approved by the Graduate Program Committee).*** If you fail the QE or parts of it, you must retake it the next time it is offered; you cannot exempt the QE by publishing a journal paper after taking it for the first time

A candidate who fails any section twice will be removed from the doctorate program. *If a student only fails one section on their second try, they can ask the graduate committee for a third attempt. The committee can reject a students request for a third attempt. If the committee agrees, they will be given a third attempt and will have 10 days to retake their failed section. If they fail for the third time, they will be removed from the program.*

A Ph.D. candidate who successfully passes all four sections of the Qualifying Exam will be admitted officially in the doctorate program in the Bob L. Herd department of Petroleum Engineering at Texas Tech University and consequently will be allowed to register for the PETR 7000 course.

A Ph.D. candidate who successfully passes at least three sections will be admitted conditionally in the doctorate program in the Bob L. Herd Department of Petroleum Engineering at Texas Tech University and consequently will be allowed to register for the PETR 7000 course. The student must still pass the fourth Qualifying Exam the next time it is offered to stay in the program.

Exception to any of the items above must be ***unanimously approved by the members of graduate committee.***

PROPOSAL DEFENSE

After the PhD student passes the QE he/she should present and defend a proposal for Doctoral Dissertation Research within a period of time not exceeding twelve months. The student should register for PETR 7000 while working on their research for the proposal.

The presentation and defense of the proposal is considered one of the most important milestones toward partial fulfillment of the requirements for the PhD degree.

It is the student's responsibility to provide the details to the Academic Administrative Coordinator at least two weeks prior, so a room may be booked.

Students must submit a written proposal to their committee members doing their proposal defense at least two weeks before the defense. The proposal will be evaluated by all of the Doctoral Candidate's Dissertation Committee members present at the Oral Examination using the *Petroleum Engineering Ph.D. Proposal Rubric* on appendix page 4. The performance ratings received from Committee members will be used internally by the department for the Graduate Review and SACS (Southern Association of Colleges and Schools) Accreditation. The performance ratings received will NOT directly affect the students' proposal outcome.

The entire proposal is the sole responsibility of the Doctoral Candidate, from preparation through oral defense, reflecting the student's research capability, original idea(s), well documented reviews of publicly available published data and literature, research methodology, clear objective(s) and a plan with time-frame.

At the end of this Oral Examination, there will be a vote among the Doctoral Candidate's Dissertation Committee members. The following three options are possible:

- ***Unanimous vote in favor of the Doctoral Candidate.*** The Doctoral Candidate will pass without conditions. The student will be invited to resume/start her/his research work.
- ***Majority vote in favor but not unanimous.*** If the Doctoral Candidate passes his/her Oral Examination with a majority of votes in favor but not unanimous, the "objecting/dissenting" faculty have the right to put conditions, which shall be recorded before the Oral Examination session is over, and presented to the Doctoral Candidate by her/his Dissertation Committee chair. If the Doctoral Candidate chooses to continue with the same topic, the candidate will be required to comply with these conditions.
- ***Does not secure majority vote.*** If the Doctoral Candidate does not secure a majority vote, the student will be given another chance to prepare another proposal followed by Oral Examination thereof, to be completed within a period of time not exceeding six months. There will be no more than two chances to successfully defend the proposal.
 - In the case the Doctoral Candidate is not interested in submitting and defending another Doctoral Dissertation proposal, the candidate shall be considered as "**Failed**", and will be officially ejected from her/his status as a Doctoral Candidate. However, the student may be given the opportunity to obtain an MS degree instead, if admissible.

The PE Graduate Program Committee, chaired by the PE Graduate Advisor strongly recommend that the Doctoral Dissertation Committee should be constituted of at least 4 members among which at least one should be from outside the Bob L. Herd Department of Petroleum Engineering.

DISSERTATION DEFENSE

Directly after the student passes the proposal defense, the student will start working on their research toward completion of the doctoral program which will culminate on the defense of their dissertation. Students who are actively working on their dissertation should register for PETR 8000.

The defense of the dissertation is organized in the form of a public presentation by the Ph.D. candidate of his/her work and findings followed by an Oral Examination (dissertation defense). It is the student's responsibility to provide the details of the defense to the Academic Administrative Coordinator at least three weeks prior, so a room may be booked, and an advertisement can be created and put on the department monitors. It is the student's responsibly to coordinate with the committee to come up with a suitable time and location. The student is also responsible for choosing a Dean's Representative, who is an individual outside of the student's field of study who will sit in on the defense. Students must submit a written proposal to their committee members doing their dissertation defense at least two weeks before the defense.

The defense shall be conducted in the form of an Oral Examination to be held immediately after an approximately sixty-minute Public Presentation (seminar-like) on the dissertation by the Doctoral Candidate.

The Dissertation Defense **will not be scheduled** until the student has at least two publications approved by their faculty advisor with the cumulative rating of 10 or higher. Please see the appendix with rating system and approved journals and conferences.

After a suitable date, time and location are selected by the student and committee members, the student is required to complete a Master's and Doctoral Defense Notification Form which is to be signed by the dissertation committee chair and co-chair (if applicable). The form will then be submitted to the Academic Administrative Coordinator **at least 3 weeks before the defense**.

This form is located on the TTU Graduate School website.

<http://www.depts.ttu.edu/gradschool/academic/FormsResources.php>

The formatting guidelines for the dissertation can be found here: https://www.depts.ttu.edu/gradschool/academic/thesis_diss/forms/2023-2024/Formatting_Manual_2024_final.pdf

The Oral Defense of the dissertation shall be organized and conducted to materialize the following:

- a. The student will present their dissertation
- b. The audience including the students will ask a series of questions and certain questions and answers may be recorded at the discretion of the Advisor.
- c. The faculty will ask another series of questions and record the answers for further evaluation
- d. The Doctoral Candidate's Dissertation Committee will ask a round of questions to the candidate. The questions and answers shall be recorded simultaneously.

At the end of this Oral Examination the following should be done:

- a. Dissertation Committee Members will each complete the *Petroleum Engineering Dissertation Rubric* (appendix page 5) for the purpose of the Graduate Review and SACS

(Southern Association of Colleges and Schools) Accreditation. The performance ratings received will NOT directly affect the students' Dissertation outcome.

- b. Doctoral Candidate's Dissertation Committee members will hold a vote regarding the student's Dissertation outcome.

The following three outcome options are possible:

- a. ***Unanimous vote in favor of the Doctoral Candidate.*** The Doctoral Candidate will pass without conditions.
- b. ***Majority vote in favor but not unanimous.*** If the Doctoral Candidate passes his/her Oral Examination with a majority of votes in favor but not unanimous, the "objecting/dissenting" faculty have the right to put conditions, which shall be recorded before the Oral Examination session is over, and presented to the Doctoral Candidate by her/his Dissertation Committee chair. If the Doctoral Candidate accepts the conditions, the candidate is required to implement them.
- c. ***If the Doctoral Candidate does not secure a majority vote,*** the student will be given another chance to prepare another proposal followed by Oral Examination thereof, to be completed within a period of time not exceeding six months.

In the voting process during the dissertation defense Oral Examination, each member of the Dissertation Committee as well as the chairman of the Dissertation Committee, will have an equal share of the vote.

Degree Plan: Program for the Doctoral Degree and Admission to Candidacy Form

Students are encouraged to utilize Degree Works to visualize departmental/university requirements.

Any substitutions for courses must be approved by the Graduate Advisor and must be recorded through written documentation (email). If a Committee Chair suggests that a student take a class outside of the department, the Graduate Advisor must approve in order for the course to count toward the degree plan elective hours. The Academic Administrative Coordinator will then manually add these electives to Degree Works.

Statement of Intention to Graduate Form

A student planning to graduate must file a "Statement of Intention to Graduate" through the Graduate School. This must be completed at the beginning of the semester of intended graduation.

Forms can be found on the Graduate School website:

<http://www.depts.ttu.edu/gradschool/academic/FormsResources.php>

A candidate who does not graduate at the expected time is required to file a new "Statement of Intention to Graduate" for any subsequent graduation and enroll in that semester.

Appendix

Student
Name _____
R Number _____



PETROLEUM ENGINEERING DOCTORAL CURRICULUM CHECKLIST

Doctoral students in Petroleum Engineering are required to fulfil 72 hours as follows:

Students must take **FOUR** core courses, at least one from each of the core areas listed below.
(12 credit hours)

(Drilling Engineering: PETR 5303, PETR 5315) (Reservoir Engineering: Peter 5308, PETR 5320)

(Production Eng: PETR 5316, PETR 5317) (Formation Evaluation: PETR 5304, PETR 5305)

1. _____ 3. _____
2. _____ 4. _____

The remaining 6 courses will consist of elective courses. Courses that were used to satisfy the core requirements cannot be used again as an elective. (18 credit hours)

1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

Doctoral students are eligible to enroll in PETR 7000 or PETR 8000 only after passing all sections of the Qualifying Exam. (30 credit hours)

☐ **Research PETR 7000:** 30 credit hours

☐ **Dissertation PETR 8000:** 12 credit hours

☐ **Seminar PETR 5121:** Students are required to attend the seminar **EVERY** semester.

Publications: 1. Accepted Date:

2. Accepted Date:

Qualifying Exam: Must take within first year of attendance. Students get two attempts.

Date: _____ Drilling: P/F Production: P/F Formation: P/F Reservoir: P/F
Date: _____

Drilling: P/F Production: P/F Formation: P/F Reservoir: P/F



Steps Required for the DOCTORAL DEGREE

	ACTION	INITIATED THROUGH	SUBMITTED TO	TIME
1	Plan courses for degree	Graduate Advisor	Graduate Advisor	Prior to registration
2	Take preliminary exam (option)	Graduate Advisor	Graduate School Enrollment Management	Early in doctoral study usually first semester of coursework
3	Set up doctoral advisory committee and title	Graduate Advisor	Graduate School Enrollment Management	Prior to filing doctoral degree plan
4	File "PROGRAM FOR THE DOCTORAL DEGREE" form	Graduate Advisor or Chair, Advisory Committee	Graduate School Enrollment Management	Before the end of first year of doctoral coursework
5	File changes in degree program, if necessary	Graduate Advisor or Chair, Advisory Committee	Graduate School Enrollment Management	As needed
6	Take Qualifying Examination for major and minor subjects.	Graduate Advisor or Chair, Advisory Committee	See step #7	After approval of doctoral program and completion of coursework
7	Recommendation for admission to candidacy (request by memo)	Chair of Committee	Graduate School Enrollment Management	After passing qualifying exam and no later than 4 months before graduation
8	Enroll in semester of graduation if all requirements are met (at least 3 hours)	Graduate Advisor or Chair, Advisory Committee	Registrar	Semester of graduation
9	File "STATEMENT OF INTENTION TO GRADUATE" form with official title of dissertation listed	Student	Graduate School Enrollment Management	Semester of graduation (One must be filed for each intended graduation semester.)
10	Pay the Thesis-Dissertation fee through Student Business Services	Graduate School Dissertation Supervisor	Student Business Services	Semester of graduation (This is paid only once.)
11	Schedule final oral defense of dissertation and submit DEFENSE NOTIFICATION FORM at least 3 weeks before defense	Student, Committee Chair, and Advisory Committee	Graduate School Dissertation Supervisor	At least 3 weeks before defense
12	Stand for final oral defense of dissertation	Advisory Committee	Graduate School Doctoral Coordinator	Semester of graduation
13	Submit signed ORAL DEFENSE and THESIS-DISSERTATION APPROVAL FORM and, after incorporating committee changes, submit .pdf file of dissertation to ETD site for review	Student, Committee, Advisory	Graduate School Dissertation Supervisor	Semester of graduation (usually 5 weeks before graduation date)
14	Final grade for dissertation hours (A or B)	Committee Chair or Advisory Committee	Registrar-Final Grade Roll	End of semester
15	Submit final .pdf of dissertation to ETD web site (DMA students submit PDF programs to ETD site and turn CDs in to the Graduate School)	Student	Graduate School Dissertation Supervisor	Prior to deadline
16	Complete Doctoral Survey	Student	http://survey.norc.uchicago.edu/doctorate	Before graduation

Student-Advisor Commitment Form

Student Name: _____

Faculty Committee Advisor*: _____

Circle Current Degree Program: **Ph.D.** **M.S.**

Date Joined the Department: _____

Student's Area of Interest: _____

The individuals listed above agree that they shall work together as Student and Committee Advisor on the student's Report/Thesis/Dissertation. By signing this form, both the faculty member and student are agreeing to work together until the completion of the student's Report/Thesis/Dissertation. If either the faculty member or student no longer wish to continue working together as Student and Committee Advisor for any reason, no change in advisor may be made unless approved by the Graduate Program Committee.

Student Name (print)
Date

Student Signature

Committee Advisor Name* (Print)
Date

Committee Advisor Signature*

Graduate Program Representative Name (print)
Date

Graduate Program Representative Signature

***Faculty selected by student and Graduate Program Committee who will serve as student's personal advisor during the completion of their final project including Report, Thesis or Dissertation.**

Petroleum Engineering Ph.D. Proposal
Rubric 2024-2025

Candidate Name:

Title of Proposal:

Date:

Category	Performance Ratings					Score
	Exceptional	Above Average	Average	Below Average	Very Poor	
	5	4	3	2	1	
I. Level of Complexity: Will the result of this proposed study have the potential of significant impact on society or the profession?						
II. Quality of Written Communication: Communicates research theory, methodology and results clearly.						
III. Quality of Oral Communication: Communicates research theory, methodology and results clearly.						
IV. Critical Thinking: Originality of the proposed work.						
V. Planning: Includes specific time line for both research and publications and budget required for research.						
Total Score:						
Average Score:						

Name of Committee Member: _____

Signature of Committee Member: _____

Petroleum Engineering Dissertation
Rubric 2024-2025

Candidate Name: _____

Title of Dissertation: _____

Date: _____

Category	Performance Ratings					Score
	Exceptional	Above Average	Average	Below Average	Very Poor	
	5	4	3	2	1	
I. Quality of Oral Communication: Communicates research theory, methodology and results clearly.						
II. Quality of Written Dissertation: Communicates research theory, methodology and results clearly.						
III. Relevance: Technical contribution of the research completed.						
IV. Results: Analyzed and interpreted.						
V. Publications: Professional publication(s) resulted/expected or patent(s) filed prior to dissertation.(Patent=1.5 publications.)	(4+ pub.)	(3 pub.)	(2 pub.)	(1 pub.)	(0 pub.)	
Total Score:						
Average Score:						

Name of Committee Member: _____

Signature of Committee Member: _____



TEXAS TECH™

Operating Policy and Procedure

OP 64.02: Graduate Enrollment Policy

DATE: September 6, 2024

PURPOSE: The purpose of this Operating Policy/Procedure (OP) is to ensure that graduate enrollment corresponds closely with the use of faculty time and other university resources.

REVIEW: This OP will be reviewed every two years after publication by the Dean of the Graduate School and the Graduate Council with substantive revisions forwarded to the Provost and Senior Vice President.

POLICY/PROCEDURE

1. Full-time Study

Normal full-time enrollment varies between 9 and 13 hours for doctoral students and between 9 and 16 hours for other graduate students in the regular semester period. During a regular semester, more than 13 hours for a doctoral student or 16 hours for other graduate students requires special permission of the Graduate Dean. Students who exceed the number of allowed semester credit hours, for purposes of state funding, will be charged non-resident tuition regardless of residency status.

Students must be enrolled full time to be eligible to hold fellowships, teaching assistantships, graduate part-time instructorships, research assistantships, or other appointments designed for the support of graduate study, as well as to qualify for certain types of financial aid. All international students are required by law to have full-time enrollment in every long semester. Graduate students designated **PGRD** (those who have earned an undergraduate degree but who will take only undergraduate courses) may not be appointed to teaching assistantships, graduate part-time instructorships, or research assistantships, as noted in the *Undergraduate/Graduate Catalog*.

If a student is devoting full time to research, utilizing university facilities and faculty time, the schedule should reflect at least 9 hours enrollment (6 hours in the summer session). Enrollment may include research, individual study, thesis, or dissertation.

Exceptions to full-time enrollment for employment purposes require approval by the Graduate Dean.

2. Continuous Enrollment

Each student who has begun thesis or dissertation research must register in each regular semester and at least once each summer until the degree has been completed, unless granted an official leave of absence from the program for medical or other exceptional reasons. At least 6 hours of 6000 or 12 hours of 8000 constitute minimum requirements. Off-campus students may register

for 1 hour of 6000 or 8000 with departmental approval until their final semester, at which time they must enroll in at least 3 hours.

3. Doctoral Residence

Each student fulfilling the doctoral residence requirements will enroll for at least 24 hours in one calendar year. The Dean of the Graduate School must approve in advance any other pattern of enrollment to meet the doctoral residence requirement. Students holding half-time assistantships or graduate part-time instructorships may satisfy the requirement by taking at least 9 hours in each long term and 6 hours in the summer. Students who are employed full time, and for whom completion of 24 hours in one calendar year would constitute unreasonable hardship, may submit proposals for consideration of alternate patterns of enrollment to complete the residence requirement with departmental support.

4. Other Considerations

Courses beyond the minimum requirements, including research and appropriate special topics courses, strengthen student programs and provide greater depth and specialization but should be carefully planned in order not to push the student beyond the maximum fundable hours. The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) states that “a program leading to a doctor’s degree is normally the equivalent of at least three years of full-time graduate study” and “must require a period of residency after admission to the doctoral program,” as well as “appropriate and regular means for determining candidacy and the fulfillment of degree requirements.” Departments should strive for compliance with both the SACSCOC requirements and the state’s maximum limit on fundable doctoral hours while providing the most strength and depth possible for the student within these limits.



Operating Policy and Procedure

OP 64.04: Academic Probation, Suspension, and Dismissal of Graduate Students

DATE: February 24, 2025

PURPOSE: This Operating Policy/Procedure (OP) is intended to define the academic requirements for continuation of graduate study.

REVIEW: This OP will be reviewed every two years after publication by the Dean of the Graduate School with substantive revisions forwarded to the Graduate Council and the Provost and Senior Vice President.

POLICY/PROCEDURE

1. Every student enrolled in the Graduate School, whether working toward a graduate degree or not, is required to maintain a high level of performance and to comply fully with policies of the institution. The Graduate School reserves the right to place on probation as well as to suspend or dismiss any post-baccalaureate or graduate student who does not maintain satisfactory academic standing or who fails to conform to the regulations of the university.

- a. Probation

A student whose cumulative GPA falls below 3.0 is placed on academic probation. The student must raise their cumulative GPA to at least 3.0 within two consecutive semesters* to avoid suspension. If semester GPA drops below 3.0 during this two-semester period, the student is subject to suspension. If the cumulative GPA remains less than 3.0 and their term GPA is greater than 3.0, then the student is placed on continued probation. If the student's cumulative GPA remains below 3.0 in the following term, then the student is placed on academic suspension.

- b. Suspension

A student placed on suspension must remain out of Graduate School for one semester.* During this time, they may not take courses; engage in research/creative activity; or serve as a student graduate part-time instructor (GPTI), teaching assistant (TA), or research or graduate assistant (GA). If a student is suspended twice, they will not be allowed to return to Graduate School.

- c. Dismissal

Continued unsatisfactory academic progress may be the cause for dismissal from Graduate School by the Dean of the Graduate School. Conditions for dismissal include, but are not limited to, the following:

* A long summer session or two consecutive short summer sessions count as one semester.

- (1) Students admitted to Graduate School with academic conditions are automatically placed on academic notice. Students who fail to meet the stipulated conditions of admission will be dismissed from the program.
 - (2) A student who is suspended twice will not be allowed to return to Graduate School.
2. Individual academic programs may have higher standards than the minimum university requirements. Students who fail to meet the higher program standards may be placed on probation or suspension or dismissed from the program based upon recommendation by the department/program to the Dean of the Graduate School for formal action. Such standards must be approved by the Graduate School. Examples of such disciplinary actions include, but are not limited to, the following:
 - a. Failure to meet the program's stipulated conditions of admission will result in dismissal from the program by the Dean of the Graduate School.
 - b. Students not making satisfactory progress, including progress in research/creative activity, may be placed on probation and given conditions to meet in order to remain in the program.
 - c. Continued unsatisfactory progress in any area of graduate work will be cause for dismissal from the program by the Dean of the Graduate School.
 - d. Failure to pass the qualifying exam within the specified timeframe will result in dismissal from the program by the Dean of the Graduate School.
3. A student who is dismissed from a program yet maintains minimum academic performance standards may apply for admission to another graduate degree program at Texas Tech University.
4. Any student who desires to be reinstated after suspension or dismissal may appeal these decisions to the Graduate School according to the procedure stipulated in [OP 64.07, Graduate Student Appeals](#).
5. Students may be suspended or dismissed for unprofessional conduct such as cheating or plagiarism. Any appeal of such action is subject to the provisions of the *Code of Student Conduct*. See the [Student Handbook](#) for further information.



TEXAS TECH UNIVERSITY

Operating Policy and Procedure

OP 64.07: Graduate Student Appeals

DATE: May 25, 2023

PURPOSE: The purpose of this Operating Policy/Procedure (OP) is to outline the disposition of cases involving graduate student appeals.

REVIEW: This Operating Policy/Procedure (OP) will be reviewed in October of even-numbered years by the Dean of the Graduate School with substantive revisions forwarded to the Vice Provost for Academic Innovation and Student Success and the Provost and Senior Vice President for Academic Affairs (PSVPAA).

POLICY/PROCEDURE

1. This policy applies to specific grievances arising from matters affecting students' academic standing and performance, other than admission to the Graduate School (see [OP 64.01, Admission to the Graduate School](#)) and academic dishonesty (see the *Code of Student Conduct*). Such matters include, but are not limited to, disputes concerning comprehensive and qualifying examinations, theses and dissertations, academic probation and suspension, publications, and graduate assistantships. Appeals, other than probation and suspension, may be made only when alleged prejudice or arbitrary or capricious action is involved. Appeals of course grades are made through the dean of the college in which the course is offered and, therefore, are excluded from consideration in this OP.
2. The burden of proof of unfair influence or action rests with the student.
3. A student wishing to appeal a decision or action first should discuss the matter with the faculty member or members involved.
4. If not satisfied with the outcome of this effort, the student should contact the chairperson of the department concerned. This contact, like that with the faculty members, normally is informal, and the department chairperson may take whatever action is deemed advisable in attempting to resolve the issue. All parties involved should make every effort to resolve the issue without going beyond this level.
5. If still not satisfied following these meetings and discussions, the student may make a written formal appeal to the Office of the Dean of the Graduate School. The appeal must include supporting information that details specifically all aspects of the student's grievance. Supporting information must be received by the Office of the Dean of the Graduate School within 14 business days after notifying the Office of the Dean of the Graduate School of the appeal request.
6. The Dean of the Graduate School may first convene an informal committee of at least two associate deans to evaluate the information and seek further information from the academic department involved. The Dean may render a decision on the basis of this investigation and

evaluation or may choose to defer a decision until the case has been considered by a hearing committee (normally the Student Affairs Committee of the Graduate Council). Ordinarily, this committee will meet only in the fall and spring semesters, due to the difficulty of securing relevant participants in the summer months.

7. If an appeals committee is convened, it will examine the evidence and hold what hearings and meetings it deems necessary to make a recommendation in the case. It is not necessary for the parties to appear unless requested by the committee, but parties have the right to appear if they wish to do so. The Dean of the Graduate School may attend meetings of the appeals committee but will not be present during the committee's deliberation of its final recommendation. Members of the committee who have professional or personal relationships with either party in a dispute that would create a hindrance to objective judgment or a conflict of interest must withdraw themselves or be recused from the committee. The Dean will name a replacement. After appropriate deliberation, the committee will make its recommendation to the Graduate Dean.
8. Taking into account the recommendation of the appeals committee (if convened), the Dean of the Graduate School will make a decision on the appeal, which will be sent in writing to the student, the department involved, and the chairperson of the appeals committee. The decision of the Dean is final unless a further appeal (section 9) can be justified.
9. An appeal of the Dean's decision may be made only on the basis that due process was not followed. Appeals must be submitted in writing, with accompanying evidence and history, to the Office of the Provost and Senior Vice President for Academic Affairs (PSVPAA) either by the student or by the faculty member(s) involved.
10. If an appeal is made to the Office of the PSVPAA, the PSVPAA or designee will determine whether to hear the appeal. If the appeal is heard, the Office of the PSVPAA will render a decision on the basis of the evidence and history provided. The decision will be sent in writing to the student, the department involved, the chairperson of the appeals committee, and the Dean of the Graduate School. The decision of the Office of the PSVPAA will be considered the final disposition of the case, without any further appeal at Texas Tech University.