

GRADUATE STUDENT HANDBOOK

TEXAS TECH UNIVERSITY
COLLEGE OF AGRICULTURAL SCIENCES
AND
NATURAL RESOURCES

DEPARTMENT OF NATURAL RESOURCES MANAGEMENT

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INTRODUCTION

Welcome to the Department of Natural Resources Management. This department traditionally ranks in the top three departments at Texas Tech and among the best natural resources departments in the United States. Although our faculty is small in number, we are a close, cooperative, competitive group that puts our department above personal aspirations. Your success and the success of your new departmental home depends upon your aggressive pursuit of the same goals.

This handbook outlines the graduate program policies and procedures of the Department of Natural Resources Management. The purpose of this document is to help graduate students understand the change from undergraduate education to that of a graduate student and successfully chart your course through a degree program. It is your responsibility to learn and use all of the policies and requirements established by the Graduate School and the Department of Natural Resources Management. This document is a supplement to the Graduate Catalog and Texas Tech Operating Policies (O.P.s) <http://www.depts.ttu.edu/opmanual/>. It does not supersede the O.P.s or the policies of the Graduate School.

The Graduate School publishes a checklist with benchmarks of concern to graduate students. Please see Appendix A for these benchmarks. The Graduate School publishes semester deadlines which can be found at <http://www.depts.ttu.edu/gradschool/students/current/deadlines-grad.php>.

GRADUATE PROGRAMS

The main purpose of graduate programs is to provide opportunities for students to gain knowledge and skills not readily available from baccalaureate studies and to prepare students to assume professional positions in their respective fields. The principal difference between a B.S. and advanced degree programs is your participation in research and involvement in decision-making processes. The major task of a graduate student is learning how to design, conduct, interpret, and report the results of a research project.

Due to the expense of field research, thesis or dissertation students are typically expected to arrange for an assistantship and project funding. Students that have sources of support outside of the Texas Tech System may be admitted on a case-by-case basis. Assistantships are considered half-time employment. Therefore, students receiving an assistantship are expected to work half-time for their major professors and the remaining time should be devoted to their class work and thesis or dissertation research.

M.S. PROGRAMS

We offer two kinds of M.S. programs: thesis and non-thesis. Detailed requirements for these different degrees are presented in the sections that follow. Transfer from a thesis to non-thesis degree after the 1st semester of enrollment is not allowed. However, transfer from a non-thesis to thesis degree may occur for students showing significant aptitude, provided that a major advisor has the desire and resources to support such a transfer.

M.S. Non-thesis degree

For the M.S. non-thesis candidate, this is a more in-depth exploration of what science is and how it is used in the natural resources fields. You will be taking coursework designed to enhance your training and skills for management and career related jobs. The student's role is to attain a more thorough understanding of how science is used to address natural resource problems. This will be done primarily through customized coursework. The non-thesis student is required to complete 36 (or more) graduate credit hours: 30 hours in Natural Resources Management, and 6 or more in areas to be determined with your committee. Specific courses (to be determined) are required of all students in this program.

Preliminary assessment

Each non-thesis student must choose, with mutual consent, a 'major professor' with whom they will, within their 1st semester, establish a graduate committee (with advisor and departmental guidance), develop a degree plan, and submit it for approval to the Department Graduate Advisor (Dr. Mark Wallace) and the Graduate School.

Program For Master's Degree And Admission To Candidacy

To be formally admitted to candidacy toward our non-thesis M.S. degree, you must: (1) complete 9-12 semester hours of graduate credit (2) defend the written degree plan (Program For Master's Degree And Admission To Candidacy) successfully in a "candidacy" meeting with your graduate advisory committee; (4) obtain your committee's approval of your degree plan; and (5) submit the Program for the Master's Degree and Admission to Candidacy form to, and have it approved by, the Graduate School.

Final Exam

The final examinations for non-thesis M.S. students are conducted during regular semester terms. The exam is in the form of a comprehensive written test covering a range of NRM disciplines and prepared by the graduate advisory committee. The Graduate School Office should be consulted for specific deadlines and procedures.

M.S. Thesis degree

For the M.S. thesis candidate, this is generally your first experience in actually doing as opposed to hearing about science. Consequently, M.S. candidates need considerable guidance from their major professor and graduate advisory committee. The student may be following up on ideas initially generated by the major professor or committee members. If the student is working on funded research, it is likely that the major professor wrote the proposal and was awarded a grant or made a successful bid on a contract well before the student arrived. The student's role may be largely that of a data collector and analyst. Research is learned through intimate involvement in a structured example. This may be the only exposure to research if the M.S. is the terminal degree for the student. Regardless of career objectives, the student should be able to understand the scientific process and thus be better able to critically review and use scientific literature in the future.

Most M.S. research programs allow latitude for a student to suggest changes in design, data collection, and analysis. Most of the interpretations of the data should be the student's. The major professor and graduate advisory committee provide editorial comment and suggestions. The degree of originality shown during the M.S. program is often used as an indication of probable aptitude for a Ph.D. level program.

Preliminary assessment

As early in your M.S. study as possible, you will undergo a preliminary assessment (a committee meeting, which may include an examination - oral or written or both). This examination will serve as the basis for further counseling of the applicant and for the development of your program for the M.S. thesis degree plan. Within their 1st semester, each M.S. thesis student must choose, with advice and mutual consent of their 'major professor', a graduate committee. Thesis students will develop a research proposal for review and approval by their graduate committee and outline a degree plan of proposed coursework that will meet committee, Departmental Graduate Advisor, and Graduate School requirements.

Research Proposal

Under supervision of your major professor, you will define your research problem and write a detailed proposal. The proposal should consist of a title, a statement of the problem and rationale for gathering original research data, a statement of objectives including hypotheses to be tested, a review of the literature, and a detailed description of the design, data analysis, and procedures of the study. You should be aware that your proposal will be judged largely on the basis of whether or not the study design and procedures are likely to permit fulfillment of the stated objectives.

After your major professor has approved the proposal, you should distribute copies to the members of your graduate advisory committee.

The committee should be allowed at least two weeks to read and evaluate the proposal prior to your committee meeting. The completed proposal must be submitted to your Graduate Committee for review and approval.

Committee Meeting

The graduate committee is made up of at least three graduate faculty members for M.S. students. Adjunct faculty may serve in addition to the 3 required members. During the committee meeting, you will be questioned by your graduate committee on the research proposal. You should be prepared to summarize orally the content of your proposal, to defend the rationale, objectives, hypotheses, to cite and comment on relevant sources in the literature, and to defend the proposed study designs and procedures. When members of the graduate advisory committee have finished questioning you, they will arrive at a consensus as to whether or not and under what conditions the proposal should be accepted.

Coursework

M.S. thesis students' coursework should comprise at least 24 of the 36 credit hours required for the M.S. degree (24 hrs of coursework, 6 hrs of NRM 6000, and 6 hrs of NRM 7000.) Your proposed list of required coursework is also scrutinized at the committee meeting in relation to previous coursework, current research, and career objectives. You must comply with any suggested changes and stipulations before admission to candidacy.

Program For Master's Degree And Admission To Candidacy

To be formally admitted to candidacy toward an M.S. thesis degree, you must: (1) write a detailed research proposal; (2) present an open seminar on a proposed research project; (3) defend the written proposal successfully in a "candidacy" meeting with your graduate advisory committee; (4) obtain your committee's approval of your degree plan; and (5) submit the Program for the Master's Degree and Admission to Candidacy form to the Graduate School.

Master's students are expected to complete their program for the Master's Degree and fulfill the requirements for admission to candidacy as soon as possible after their graduate committee has been formed (usually after 9 graduate credit hours have been completed). If you are unable to define a specific research problem during the first two semesters of your program, you should hold a preliminary meeting with your graduate advisory committee to decide on coursework.

Shortly before the candidacy meeting, the M.S. student should obtain the appropriate Program for the Master's Degree and Admission to Candidacy form from the Graduate School and should fill in background information, proposed coursework, and transfer credits (if

any). At the meeting, you should enter any necessary changes and obtain the necessary signatures. The approved Master's Degree Form must be submitted electronically to the Graduate Program Administrative Assistant, who will submit it to the Graduate School, at which time you are officially admitted to candidacy. Any change in coursework taken or major alteration in research direction requires approval of the committee. Memoranda to formalize such changes will be initiated by the major professor.

Preparation of Thesis Data

In preparing even the earliest draft of the thesis or dissertation, you should have the typescript conform with the style currently accepted by the Graduate School. Council of Biological Editor's Style Manual, Sixth Edition provides a basic guideline. The Texas Tech University Publication Guide for Graduate Students and the CBE Scientific Writing for Graduate Students are helpful. Departmental staff cannot be used for typing and duplicating any draft of the research proposal, thesis, or dissertation. Word processing computers are available in the department and at the ATLC in the basement of the library.

An alternative to the traditional style of writing the thesis or dissertation is the submission of a paper or collection of papers in a format acceptable for submission to an appropriate professional journal. For a collection of papers, you should avoid redundancy in wording of common passages and provide additional chapters or appendices where appropriate, e.g., overall problem statement, general literature review, details of study area, methods used, overall conclusions and recommendations for further research. Consultation with the major professor and committee is recommended before you choose this alternate style and begin writing.

Thesis review

Each committee member has the option of using two weeks to examine the major professor-approved draft of the thesis to determine if it is in acceptable condition to be formally defended. The committee members will indicate a willingness to attend the final meeting or suggest what remains to be done before they will be willing to attend a final meeting.

Final Oral Presentation

The final oral presentation is a publicly announced oral presentation. This presentation is based upon the thesis or dissertation. This presentation is expected to be of a quality suitable for delivery at a scientific meeting. Included in the presentation should be: (1) a clear rationale for the research; (2) a concise statement of objectives; (3) a brief review of procedures; (4) a summary of results; and (5) a discussion of the broad significance of the study.

Final Exam and Defense of Thesis

An M.S. candidate who has fulfilled all coursework requirements, who has gained the major professor's approval of a draft of the thesis must pass a final examination to complete the degree program. The final examinations are conducted during regular semester terms and include an oral presentation (defense seminar) open to the public. This is followed by a meeting of your graduate advisory committee in which you are expected to defend your work and answer questions regarding it. The Graduate School Office should be consulted for specific deadlines and procedures.

The purpose of the final graduate committee meeting is to allow committee members the opportunity to evaluate your total academic performance and to arrive at a consensus as to whether or not you should be granted an advanced degree. During the final meeting, the committee reviews your records to make certain that all prior requirements have been completed satisfactorily and examines you verbally on the subject of your thesis or dissertation. You should be prepared to summarize briefly the objectives and results of your research, to justify the importance of its contribution, and to answer questions pertaining to the form and content of the report, thesis, or dissertation draft.

After the graduate advisory committee has reviewed your records and has examined you verbally, they determine whether or not to recommend conferral of an advanced degree. You will be advised immediately of the committee's decision. The committee has the option of indicating conditional approval, in which case you must meet the specified conditions. Members of the graduate advisory committee indicate ultimate approval by signing the final version of your thesis or dissertation. All committee members must sign for a degree to be conferred. Departmental policy requires a minimum 80% affirmative vote to pass.

Final Requirements For Graduation

Students who are within four months of completing their graduate degree programs are advised to consult the Graduate Catalog and personnel in the Graduate School for information on fees, disposition of the departmentally approved thesis or dissertation, and graduation deadlines. Students wishing to participate in commencement exercises are particularly urged to contact the Graduate School for annually updated information on graduation deadlines. You are responsible for meeting all deadlines required for graduation.

PSM - Professional Science Masters Degree in Environmental Sustainability and Natural Resources Management

This is a new (starting Fall 2015) distance degree being offered with curricula from the Department of Natural Resources Management, the Department of Biology, and the Rawls School of Business. More information can be found at

<http://www.depts.ttu.edu/gradschool/about/Professional-Science/index.php> . This is a certified program with the National Professional Science Masters Association
<http://www.sciencemasters.com/> .

Ph. D. PROGRAM

The Ph.D. candidate is treated more as a colleague in science. Attainment of a Ph.D. brings the expectation that the individual can serve as a faculty member or research scientist. Therefore, the Ph.D. candidate is generally involved in generation of original ideas, proposal writing, and funding negotiations. The Ph.D. student must show considerable command of the scientific literature, creativity at hypothesis formation, skill at research design, the ability to solve a problem, and competence in data analysis. The major professor and graduate advisory committee do not solve the details but serve as advisors and critics to give the student a taste of the peer review system used in science. The outcome is judged on its originality and contribution to science and whether it is substantial enough to merit publication.

Graduate Advisory Committee

Your graduate program is under the direction of a major professor and a graduate advisory committee. The major professor chairs the graduate committee. The major professor and student work closely together on all aspects of the student's graduate degree program. A major professor may be changed with mutual consent of all involved, if the guidance of another faculty member would be more appropriate than that of the person initially assigned.

The graduate committee is made up of at least five graduate faculty members for Ph.D. students. Adjunct faculty members serve in addition to the above, if desired. Two members of the Ph.D. committee must come from departments other than Natural Resources Management.

Committee members are selected after joint consultation between you and your major professor. Potential committee members should be contacted informally to gain their consent to be on the committee before the major professor submits the graduate advisory committee assignment form through administrative channels. The committee selection is subject to the approval of the Departmental Graduate Advisor and the Dean of the Graduate School. The composition of the committee may be revised at any time by mutual consent of the faculty involved and the approval of the major professor, the Department Graduate Advisor, and the Dean of the Graduate School.

Normally the graduate advisory committee is appointed during the first semester you are in residence. Even if there is some uncertainty about your

specific area of concentration and career objectives, we recommend that the initial committee meeting be held no later than the second semester of residence to assist you in the selection of coursework. Committees do not appreciate having to review and approve accomplished coursework programs, research plans, and results presented without an opportunity for input. Work done prior to the initial committee meeting may not be acceptable to the committee as a whole (neither the Graduate School nor the graduate advisory committee are obligated to accept courses completed prior to acceptance into a graduate program or formation of a graduate advisory committee). The graduate committee recommends a program of courses, submits comprehensive examination questions, assists you in your research plan, critiques annual reports and other evidence of progress on the research, reads the final draft of the thesis or dissertation, and attends seminars presented by the candidate and the final examination.

Preliminary Assessment

As early in the doctoral study as possible, you will undergo a preliminary assessment (an examination - oral or written or both). This examination will serve as the basis for further counseling of the applicant and for the development of the program for the doctoral degree.

Program For The Doctoral Degree

The program for the doctoral degree must be submitted to the Department Graduate Advisor and the Graduate School prior to the beginning of the second year of work towards the degree. The student's course of study, based upon the preliminary assessment and meeting with the major professor and graduate committee, will be projected and submitted to the Graduate School using the Program for the Doctoral Degree Form.

Research Proposal

Under supervision of your major professor, you should define an original research problem and write a detailed proposal. The proposal should consist of a title, a statement of the problem and rationale for gathering original research data, a statement of objectives including hypotheses to be tested, a review of the literature, and a detailed description of the design, data analysis, and procedures of the study. You should be aware that your proposal will be judged largely on the basis of whether or not the study design and procedures are likely to permit fulfillment of the stated objectives.

After your major professor has approved the proposal, you should distribute copies to the members of your graduate advisory committee. The committee should be allowed at least two weeks to read and evaluate the proposal prior to your committee meeting. The completed proposal must be submitted to your Graduate Committee for review and approval.

Committee Meeting

During the committee meeting, you will be questioned by your graduate committee on the research proposal. You should be prepared to summarize orally the content of your proposal, to defend the rationale, objectives, hypotheses, to cite and comment on relevant sources in the literature, and to defend the proposed study designs and procedures. When members of the graduate advisory committee have finished questioning you, they will arrive at a consensus as to whether or not and under what conditions the proposal should be accepted. Your proposed list of required coursework is also scrutinized in relation to previous coursework, current research, and career objectives. You must comply with any suggested changes and stipulations before admission to candidacy.

Pre-Project Seminar

With the assistance of your major professor, you should prepare a short oral presentation based on the thesis or dissertation research proposal to be presented to the Natural Resources Management Department. This presentation is open to all university faculty, collaborators and students, and is expected to be a formal, scholarly presentation. You should include in your presentation a clear rationale for the proposed research, a concise statement of objectives, hypotheses, and a detailed description of the design and methods of the intended study. You should be prepared to defend your proposal during a question-and-answer period following the presentation.

One purpose of this presentation is to expose your thinking to a broader audience than the committee. Someone in the audience may suggest oversights or improvements not apparent to you, your major professor, or committee. Another purpose is to give you experience in oral presentation and peer review. Additionally, the audience learns of the breadth of research taking place in the department.

Post-Project Seminar

As you complete data analysis and begin to form conclusions, your major professor will request that the initial findings be presented to the Natural Resources Management Department. One purpose of this post-project seminar is to provide you with an extensive review and comment by faculty and fellow students. This post-project seminar should help you prepare the final draft of the thesis or dissertation and the oral defense.

Coursework

Ph.D. students are required to complete at least 45 hours of major coursework and 15 hours of minor coursework OR 60 hours of coursework if there is no minor. Only classes numbered above 5000 are acceptable for graduate credit. All Ph.D. students must complete one semester of teaching practicum (NRM 7210) and at least 1 level II stats class. No more than 6 hours of credit will be given for independent study (600X) or research (7000) classes. You are

urged to meet with your major professor shortly after arriving on campus to decide upon a tentative program of coursework. After you and your major professor agree on the proposed coursework list, the student should distribute copies of it to the members of the graduate committee prior to the meeting at which coursework is to be discussed. In this meeting, the committee reviews or revises the proposed list of courses prior to approval.

Decisions concerning specific courses to be taken are the responsibility of your graduate committee. The Department Graduate Advisor and the Dean of the Graduate School review and approve the program of coursework. Students lacking adequate undergraduate preparation in supporting areas may be required to take additional coursework without graduate credit.

Teaching Practicum

The NRM 7210 teaching practicum is required for doctoral students and available only by prior arrangement with your PI and the Department Chair. This class consists of faculty supervised instructional experience from which students receive pedagogical overview, experience developing syllabus, lesson plans, and feedback on teaching. Enrollment in this course will require your attendance at available TLPDC workshops. You will also be scheduled to observe NRM faculty and other NRM 7210 students teaching. Your teaching will also be observed by faculty and students who will provide critical feedback. You may be assigned as much as 1/3 of the tasks required for teaching an NRM class including: class/delivery prep, exam prep & grading. You will also be asked to attend and present at a Departmental ‘brown bag – lunch seminar’ on teaching.

Qualifying Examinations (or Comprehensive Exams) and Admission to Candidacy

All Ph.D. candidates in the Natural Resources Management Department are required to take a set of written (and possibly oral) comprehensive examinations prepared and conducted by the graduate committee. The purpose of these examinations is to determine whether or not a candidate possesses a depth of knowledge in their area of specialization, a breadth of knowledge in supporting areas, an understanding of the scientific method, and the ability to communicate knowledge in an organized and scholarly manner.

Students must take this examination within one calendar year of completing all the course requirements listed on the degree plan. Failure to do so will be cause for dismissal from the program. Results of this examination, reported with the Qualifying Exam Results Form with its recommendation for Admission to Candidacy, should be filed by the Committee Chairperson with the Graduate Advisor and the Graduate School.

Preparation of Thesis or Dissertation Data

In preparing even the earliest draft of the thesis or dissertation, you should have the typescript conform with the style currently accepted by the Graduate School. Council of Biological Editor’s Style Manual, Sixth Edition provides a basic guideline. The Texas Tech University Publication Guide for Graduate Students and the CBE Scientific Writing for Graduate Students are

helpful. Departmental staff cannot be used for typing and duplicating any draft of the research proposal, thesis, or dissertation. Word processing computers are available in the department and at the ATLC in the basement of the library.

An alternative to the traditional style of writing the thesis or dissertation is the submission of a paper or collection of papers in a format acceptable for submission to an appropriate professional journal. For a collection of papers, you should avoid redundancy in wording of common passages and provide additional chapters or appendices where appropriate, e.g., overall problem statement, general literature review, details of study area, methods used, overall conclusions and recommendations for further research. Consultation with the major professor and committee is recommended before you choose this alternate style and begin writing.

Thesis or Dissertation

Each committee member has the option of using two weeks to examine the major professor-approved draft of the thesis or dissertation to determine if it is in acceptable condition to be formally defended. The committee members will indicate a willingness to attend the final meeting or suggest what remains to be done before they will be willing to attend a final meeting.

Final Examination

The Ph.D. candidate who has fulfilled all coursework requirements, who has passed comprehensive examinations, and who has gained the major professor's approval of a draft of the dissertation must pass a final examination to complete the degree program. The final examinations are conducted during regular semester terms and include an oral presentation (defense seminar) open to the public. This is followed by a meeting of your graduate advisory committee in which you are expected to defend your work and answer questions regarding it. The Graduate School Office should be consulted for specific deadlines and procedures.

Final Oral Presentation

The final oral presentation is a publicly announced oral presentation. This presentation is based upon the thesis or dissertation. This presentation is expected to be of a quality suitable for delivery at a scientific meeting. Included in the presentation should be: (1) a clear rationale for the research; (2) a concise statement of objectives; (3) a brief review of procedures; (4) a summary of results; and (5) a discussion of the broad significance of the study.

Defense of Dissertation

The purpose of the final graduate committee meeting is to allow committee members the opportunity to evaluate your total academic performance and to arrive at a consensus as to whether or not you should be granted an advanced degree. During the final meeting, the committee reviews your records to make certain that all prior requirements have been completed

satisfactorily and examines you verbally on the subject of your thesis or dissertation. You should be prepared to summarize briefly the objectives and results of your research, to justify the importance of its contribution, and to answer questions pertaining to the form and content of the report, thesis, or dissertation draft.

After the graduate advisory committee has reviewed your records and has examined you verbally, they determine whether or not to recommend conferral of an advanced degree. You will be advised immediately of the committee's decision. The committee has the option of indicating conditional approval, in which case you must meet the specified conditions. Members of the graduate advisory committee indicate ultimate approval by signing the final version of your thesis or dissertation. All committee members must sign for a degree to be conferred. Departmental policy requires a minimum 80% affirmative vote to pass.

FINAL REQUIREMENTS FOR GRADUATION

Students who are within four months of completing their graduate degree programs are advised to consult the Graduate Catalog and personnel in the Graduate School for information on fees, disposition of the departmentally - approved thesis or dissertation, and graduation deadlines. Students wishing to participate in commencement exercises are particularly urged to contact the Graduate School for annually updated information on graduation deadlines. You are responsible for meeting all deadlines required for graduation.

REQUIREMENTS FOR ALL GRADUATE STUDENTS

GRADE MAINTENANCE REQUIREMENTS

The Graduate School policy requires that all graduate students maintain an average of "B" or better. If your GPA drops below 3.0, you will be put on probation. If your overall GPA is not above 3.0 within two semesters after being put on probation, you will be suspended from your graduate degree program and any financial assistance will be terminated.

Traditionally, Research, Thesis, and Dissertation have been assigned a grade of "CR" except during the last semester when a grade is assigned. A grade of "NC" (no credit) may be assigned to indicate that satisfactory progress has not been made in Research, Thesis, or Dissertation.

REGISTRATION REQUIREMENTS

All students accepted into our graduate degree program are required to register for 9 hours each long semester and a total of 9 hours over the two summer sessions. Thus, a total of 27 hours per year are required, even if not in residence.

Non-resident tuition has been customarily waived for students with RA or TA appointments. However, the Attorney General of the State of Texas has ruled that fees for such items as general use fee, service fee, University Center fee, and medical

services fee will not be waived. The Legislature of the State of Texas has imposed a 99-hour cap on students registered in Ph.D. programs. Once total enrollment hours reach 99, full fees may be charged, including out of state tuition.

RESIDENCY AND REGISTRATION

Students who have begun thesis or dissertation research must register in each regular semester and each summer session until the degree requirements have been completed, unless granted an official leave of absence from the program for exceptional reasons. Approval of a leave of absence will not automatically extend time for completion of the degree.

Ordinarily, the minimum residence for any master's degree is a full academic year or its equivalent of graduate work carrying residence credit. Regardless of the amount of graduate work completed elsewhere, every applicant for the doctorate is required to complete in residence at Texas Tech at least one year of graduate study beyond the master's degree or beyond the equivalent of this degree if the student proceeds to doctoral work without taking a master's degree. Residence is normally accomplished by the completion of at least 9 hours of coursework in each of the two long terms and 9 hours split over the two summer semesters.

TIME LIMITS ON COURSEWORK

Coursework for a graduate degree must be completed within six years for an M.S. program. All work for the doctorate must be completed within a period of eight consecutive calendar years or four years from admission to candidacy, whichever comes first.

PROFICIENCY IN ENGLISH

Since all coursework at TTU and written products of graduate research are in English, you must develop a command of English regardless of national origin.

ANNUAL PROGRESS EVALUATION

On or before September 1 each year, the evaluation form found at the back of this booklet will be completed. This will be used to document each graduate student's progress through their program.

RESPONSIBLE CONDUCT OF RESEARCH

The Office of the Vice President for Research (OVPR) requires all PIs to (1) identify all paid and unpaid students and postdoctoral researchers whose research is supported by NSF, NIH, or EPA awards and (2) submit their names and TTU identification numbers to OVPR as soon as they join a project or the award is funded, whichever occurs last.

The OVPR will ask that individual PIs send to the OVPR a memorandum containing the following information: PI name, NSF award number, title, account number, student or postdoctoral researcher name, TTU R number, eRaider, and status (paid or unpaid). When the trainee has completed RCR training activities that provide certificates, the PI will forward

a copy of the certification of completion to OVPR. When the trainee completes other training, the on-line site or course instructor will forward the certification of completion to OVPR.

The OVPR requires that the PI direct all students and postdoctoral researchers to take the following types of training within 30 days of beginning work on the project, or before the completion of the project, whichever occurs first:

- Face-to-face TTU safety training **and** on-line or face-to-face specialized research training appropriate to their discipline, **AND**
- Discipline-specific CITI RCR Training available on the TTU OVPR webpage [*insert link*]. The PI will direct trainees to print a copy of CITI RCR Training certificate and send it to the PI as proof of training. The PI should forward a copy of the certification of completion to OVPR.

The OVPR requires that the PI direct trainees who continue work on a project for more than one semester

- to complete a didactic course in RCR or research ethics offered by their disciplinary area or the Department of Philosophy Current examples include, but are not limited to: NRM 6002 (Ethics) Field Research Ethics, ENGR 4392. Engineering Ethics, PHIL 5125. Research Ethics **OR**
- to receive credit for participation for at least four (4) hours per semester in workshops and/or seminars focused on responsible conduct of research. Such activities will be offered by the Ethics Center, the Graduate School, the Teaching Learning and Technology Center (TLTC), and other units. Activities that provide RCR credits will be listed on the OVPR website and TechAnnounce.

RESEARCH AND ITS REPORTING

You are encouraged to maintain close contact with your major professor and other members of your graduate advisory committee during the research and writing phases of your thesis or dissertation. Such contact serves two functions: (1) it allows you to benefit from the expertise of individual committee members and perhaps avoid pitfalls or wasted time; and (2) it informs graduate committee members of your research progress. You are particularly urged to confer with members of your graduate advisory committee at critical points in your research program- e.g., when you have finished collecting data and are about to start analyzing results and when you are considering the broad organization of your thesis or dissertation. All data collected, slides taken, etc., are the property of the State of Texas or possibly the funding agency and must be left in the safekeeping of your major professor.

Research Highlights

The Department published (1970-2009) abstracts of all ongoing research projects each year in its "Research Highlights." In 2015-2016, we will require these of all current students, and they will be published electronically. Under the

guidance of your graduate advisor, you should prepare a three paragraph abstract of your research findings. Guidelines for these abstracts are distributed by the Research Highlight editors. The editors will generally call for final copies of the abstracts prior to mid-October of each year.

You should summarize and graph your data during early fall in preparation for writing the abstract. Color or black and white photographs should be taken at appropriate times during the field season to illustrate major research findings. High quality figures should be used to present relevant data. All data are expressed in English units and statistics are generally not presented.

OTHER PROFESSIONAL OBLIGATIONS

Integrity

Advancement of knowledge depends on the generation of original truthful information. Stealing someone else's ideas, data or producing fictitious information drastically impedes the progress of science. A scientist must be scrupulously honest with themselves and with those who use the results of their work. Consequently, even a hint of plagiarism or fictitious data will cause a cloud of suspicion to form over your relationship with professors and other colleagues. Proof of such activity will be grounds for immediate dismissal.

Fraud

The University expects that graduate students maintain the highest standards of research honesty. Research fraud is an act of deception; it is different from error. The term fraud is used here to include a broad range of deceptive practices including:

- Falsification of data-the intentional and unauthorized altering or inventing of any information or citation, including the purposeful omission of conflicting data with the intent to falsify;
- Plagiarism-knowingly representing the words or ideas of another as one's own;
- Misappropriation of other's ideas-the unauthorized use of privileged information (such as violation of confidentiality in peer review, however obtained).
- Research fraud may be reported either during or after a graduate student's program has been completed.

If found guilty of research fraud you will be given a penalty which may include: (1) reprimand; (2) warning or probation; (3) suspension; (4) expulsion; (5) request to rewrite thesis or dissertation or correct and reanalyze data and resubmit and defend thesis or dissertation; (6) loss of financial assistance; or (7) revocation of degree.

Professional Societies

Graduate students are encouraged to join and participate in the activities of pertinent professional societies. Since you are embarking on your professional career, it is in your best interest to become actively involved in your professional society. Most societies have reduced student dues in recognition of student budgetary

constraints. In addition to reading journals and newsletters, you should attend professional meetings whenever possible. Departmental transportation will often be available to off-campus events of these societies. Students serving on committees or delivering papers will usually be able to obtain at least partial travel expenses from the project or department.

Informal Social and Other Learning Opportunities

Alert graduate students will find that there are as many, if not more opportunities for learning from fellow students as from classes or conferences with professors. You will gain the most from your graduate years by taking every opportunity to talk with students having experience from other parts of the U.S. and the world. You can learn a great deal by sharing work efforts, and traveling to different study areas with other students or professors. The Department will try to facilitate these opportunities for interaction. These interchanges will not be forced. However, a student who quietly keeps to themselves working only on individual research, will gain only a fraction of the experience that the sociable, widely inquiring student will be able to obtain. Lifelong professional ties can be built among fellow students that enhance your long-term chances for success.

Publication of Research

A thesis or dissertation is not considered a publication. These documents are not readily accessible to the research and management community. Anyone who accepts public monies to conduct research has an obligation to make the results available to the public that paid the tax dollars or donated the money enabling the research to be accomplished. Consequently, every student is expected to get at least the main elements of their research into a widely available journal. The stature of the department and its continuing ability to attract research funds depends on this process. Maintenance of departmental stature is of overall value to all past and potential recipients of graduate degrees. Present graduates draw on the past departmental reputation as they vie for positions in the current job market.

You are encouraged to write up your research in a form acceptable for publication within one year after completion of degree requirements. This task becomes more difficult the longer it is delayed. Accordingly, if you fail to meet this obligation within one year after leaving, the responsibility for getting the work in published form will fall on your major professor. This, in turn, may change the professor's opinion when answering your requests for job references and awards. It can also be grounds for you relinquishing senior authorship.

CARE AND USE OF UNIVERSITY FACILITIES

Nearly all of our activities entail use of facilities, equipment, and operational budgets provided through state and federal funds. When private monies are accepted they become public. The use of these funds for conducting teaching and research entail accountability to those who provide this support. This means that use of facilities, equipment, and budgets may be audited by appropriate authorities at any time. Those who use university property for reasons other than for which they were intended, i.e., private versus public gain, are liable for legal prosecution and/or dismissal. Always think before using property and have a logical reason for your action if queried by those in authority. Avoid the temptation to use telephones, copy machines, mail, vehicles, etc., for private use. If in doubt about the difference between official and private action, ask before doing something that may be at the least embarrassing, if not illegal. Your major professor can readily answer or investigate your questions.

Even though equipment and facilities obtained with public monies technically belong to everyone, "what is everybody's becomes nobody's" and "the tragedy of the commons" results in facilities and equipment in disrepair. Accordingly, professors have been assigned responsibility for facilities and equipment. They may in turn assign responsibilities to a graduate student for shorter periods. A current inventory of all equipment owned by the department is available in the Natural Resources Management Department office. This listing includes location of the equipment and the professor designated as responsible for its care.

Common sense and protocol require that you ask permission before using facilities or equipment. This usually saves time and yields better data if you find out idiosyncrasies of operation and maintenance of a piece of equipment. This procedure also prevents conflicting uses from emerging. An overall efficiency of use of expensive or scarce equipment and use of limited work space can be coordinated smoothly if you consider the needs of your colleagues before you act.

Insurance

The University carries third-party injury and property damage liability insurance on graduate students who are on contract, but this insurance does not cover costs for repairs from collisions of our vehicles nor is it valid when accidents occur in connection with unauthorized use of equipment. It also is not valid if the users are breaking the law (e.g., drinking alcoholic beverages in a state vehicle) at the time of the accident. The law breaker is also personally responsible for all fines (e.g., traffic tickets).

You must maintain your personal automobile liability insurance. A current Texas driver's license in good standing is required of drivers of all university vehicles. University employees are covered by Workman's Compensation in case of injury on the job. Any accidents should be reported to the major professor and Environmental Health and Safety within 24 hours following the procedures outlined in University OP 70.13.

Personal effects of employees are not covered by any kind of University insurance. We advise that you check your homeowner's or renter's policies for more complete personal property insurance coverage.

Departmental Vehicles

The department maintains a fleet of vehicles that are necessary to fulfill our teaching and research mission. Each faculty member has one or more vehicles assigned to them and they allocate use to best facilitate the needs of their various research projects. These vehicles cannot be used without appropriate faculty approval and the specifically required training and paperwork. The department has several vehicles that can be scheduled for intermittent use. The Range Barn coordinator oversees this scheduling. Each driver must have a valid U.S. driver's license, liability insurance, be listed on the departmental insurance sheet for each vehicle operated, and have documented that they have completed all the required training (see below) for the use of that vehicle.

The most common taxpayer complaints are about state vehicles at unauthorized places, (e.g., private residences, restaurants, liquor stores, etc.), and speeding. The department realizes that one has to eat but remain aware that your choices and behavior reflect upon the Department and the University. Departmental vehicles should not be parked at bars, lounges, casinos or other enterprises that members of the public might consider to be of "ill repute". While in Lubbock, Departmental vehicles should be parked at our Range Barn facility. ***You may not park overnight in Lubbock at home or on campus without specific prior approval from your major advisor.***

Failure to follow the above policies jeopardizes our privilege of having project or departmental vehicles. Several critics have suggested that all vehicles be assigned to a common state motor pool where more stringent accounting can be made. The department requires your help in seeing that we minimize our chances of losing our present vehicle flexibility.

The State of Texas also mandates extensive record keeping on all vehicles. This includes not only fuel use, but also detailed records of all maintenance and repairs. There are specific policies and forms (TTU OP 80.08) that must be completed in case of accident involving any University vehicle. Your immediate responsibility is to assure the safety of any people involved and then to contact your major advisor and/or the Department Chair. They will direct you in procedures to follow.

Required training – Any person driving a Departmental vehicle will be required to provide documentation that they have completed and are current with the required training and documentation listed here.

- Field Safety Forms (NRM)
- 4wd care & maintenance training (NRM)
- Vehicle use form (NRM)
- Safety Awareness training (TTU)

Individuals who expect to use other Departmental equipment/resources will require documentation of additional training. e.g.,

- ATV Safety
- MOOC training
- Electro-fishing Safety
- Range Barn Equipment training (individually w/Gim)

Maintaining our operating fleet of research vehicles is critical to the operation of this Department. The Department has a limited budget for replacing vehicles. So, each one must last a long time. Therefore, to ensure that you understand the importance, and your liability, we have established the following policies.

1. **State mandated vehicle reporting forms** – if you have not properly completed these forms each time you use a vehicle, you may be liable for the costs of repairs or maintenance for the vehicle you have been using.
2. **NRM vehicle maintenance forms** – if you have not properly completed these forms each time you use a vehicle, you may be liable for the costs of repairs or maintenance for the vehicle you have been using.

Dr. Wallace checks Gim's reports. If a driver does not fill the report out correctly for two months:

1. He/she will get a letter from Dr. Wallace.
2. He/she will get removed from the approved drivers list.
3. He/she could get dropped from department support.

It is crucial that NRM vehicle users document the condition of the vehicles that they are using at all times. It is much better to document that oil level is low and you had to add a quart of oil, than to replace or rebuild an engine that was run without oil until it died. It is better to note that you heard a noise with the front end, or that the steering shimmied when you drove over 50mph; than to have to replace the entire drive shaft because it fell out and destroyed the transfer case etc. when it did.

1. NRM vehicle maintenance forms – it is your responsibility, when you get in a vehicle to understand what condition it is in. It is also your responsibility to inform our vehicle maintenance staff person, and the next person who might use it, about your vehicle.
2. Vehicle repairs – the paperwork documenting the use and maintenance of each NRM vehicle will be carefully scrutinized before repairs are authorized. If you cannot document that the repair required to keep the NRM vehicle you have been using operational is not the result of your negligence, you will have to pay for it yourself.
3. If you have ANY questions, contact the Departmental Vehicle Maintenance Staff (Gim McClarren) immediately. Vehicle users will not be held liable for expected costs of maintaining vehicles exposed to the kinds of off-road and heavy use we regularly do. The issues come when big (preventable) things happen because you – the person in the vehicle on a regular basis – failed to notify us of evidence of developing problems.

“if you told us about it as soon as you could, you won’t be liable. But, if you ignored it, waited for it to go away, or left it for the next guy, it is likely that the cost will be yours.”

The State of Texas has mandated extensive record keeping on all vehicles. This includes not only fuel use, but also detailed records of all maintenance and repairs.

There are specific policies and forms (TTU OP 80.08) that must be completed in case of accident involving any University vehicle. Your immediate responsibility is to assure the safety of any people involved and then to contact your major advisor

and/or the Department Chair. They will direct you in procedures to follow.

How will this affect NRM drivers? All such incidents will be adjudicated by a committee which shall include: Department Chair, Departmental Vehicle Maintenance Staff, and the PI. If it is determined that you could have prevented this, these are the most likely outcomes:

- If it is your first offense. In addition to possible costs
 - You will be required to retake training
 - Potentially including commercially available training at costs out of your pocket.
- If this is your second offense. In addition to possible costs
 - You may not be allowed to drive NRM vehicles for 1 year.
 - You would need to make other arrangements to be able to collect your field data.
- There will be no third offenses. Drivers responsible in such cases will be invited to leave the Department.

Departmental Labs (CHEMICAL SAFETY)

Each student is individually responsible for documenting that they have completed all the required training for their particular project, lab or office space use in the Department of Natural Resources Management. The Department has several laboratories. Each is under the direct supervision of one or more NRM faculty members. The NRM Department Chemical Hygiene Officer serves to assist faculty and students to understand the training and standards required by University O.P.'s. (See additional handout re: Chemical Safety)

Waste Disposal

The custodial staff only empties waste cans containing normal office trash. University OP 63.06 details 3 kinds of waste and the appropriate methods for disposal of each. Items that can be placed in a dumpster (normal building trash etc.) should be placed in office trash receptacles or the dumpster adjacent to your building.

- Items that are too large (or too much volume) such as building materials (e.g., sheetrock, shingles, concrete, concrete blocks, bricks, roofing material, etc), sinks, tubs, major appliances, toilets, etc., (all are recyclable); and steel bars, pipe, rocks, dirt, clay, scrap lumber, carpet, wooden pallets, packing crates, large tree limbs should be placed in containers that must be arranged for (at a cost) with Physical Plant Service.
- Items that cannot be put in trash or dumpsters:
 - (1) Items on TTU inventory: Contact TTU Property Inventory (742-3846 or 742-3847)
 - (2) Hazardous chemical items: Refer to TTU OP 60.03, Hazardous Material Spills, and contact TTU Environmental Health and Safety (742-3876)
 - (3) Appliances (e.g., small refrigerators): Contact TTU Building Maintenance and Construction (742-3301)
 - (4) Paint cans containing paint: Contact TTU Environmental Health and

Safety (742-3876)

(5) Waste Oil: Contact TTU Environmental Health and Safety (742-3876)

(6) Batteries: Contact TTU Environmental Health and Safety (742-3876)

(7) Tires: Contact TTU Garage (742-3332).

- Recyclable items like paper, aluminum, and plastic should be placed in recycling bins provided.
- Waste cans containing plant and soil samples must be emptied by whoever generated the waste.
- Animal parts or byproducts have to be double bagged in plastic and placed in a dumpster.

University O.P. 60.10 and 60.24 provide accepted procedures for disposing of “sharps” which include: blades, knives, needles & syringes, pipettes, capillary tubes, broken glass, or any other material or object that is readily capable of puncturing, cutting, or abrading the skin.

(1) Sharps containers are available at the Texas Tech University Central Warehouse. The containers may also be purchased through any scientific supply catalog.

(2) Once the sharps container is filled, call Environmental Health and Safety, 2-3876, for pickup and disposal. Do not place sharps containers in the general trash receptacles or in the dumpsters.

(3) Refer to the attachment for proper handling and disposal of used sharps.

Additional precautions must be taken when using or disposing of sharps see O.P.’s 60.10 and 60.24.

Range Barn

The Department owns a great deal of equipment and a large number of vehicles which are housed at the Range Barn located 0.5 mile west of Indiana Avenue on Erskine. This compound is shared with the Department of Plant and Soil Science. The Range Barn provides individual stalls for faculty to store their research equipment, a grinding room, a drying room, a wet lab, an office (for a range barn coordinator), and a shop area.

These facilities are for the use of approved and trained members of the Department. However, you MUST be checked out on the appropriate safety rules and regulations by our Range Barn Coordinator, Gim McClarren, 763-6702 or 252-8665(cell phone), before you may use any Range Barn tools or equipment. It is the user’s responsibility to keep the grinding room, wet lab, all equipment clean, and samples neatly stored. Samples in the drying room should be labeled with the owners name, date, and contents. Once the samples are dried, they should be removed from the drying room and stored in the space provided by the student's graduate advisor. If grinding is necessary, this should be done promptly and the area cleaned and the samples stored appropriately. Any equipment or facilities that are broken or malfunctioning should be reported to the range barn coordinator or to your graduate advisor immediately.

Vehicles, other than those assigned to your graduate advisor, should be checked out with the range barn coordinator. You should not take any vehicle or equipment not belonging to your graduate advisor without checking with the range barn coordinator or the appropriate faculty member. Departmental tools and equipment should not be removed from the Range Barn without first getting permission from the range barn

coordinator.

Users should be aware that vehicles are very expensive for projects to purchase and to maintain. Each user must take the same care of the project vehicle(s) and practice better driving habits than they do with their personal vehicle. Please remember that after you, as graduate students, finish your degree and leave, we still must depend on those same vehicles for continuation of our research. Please remember your successors and leave them a vehicle in good condition

All vehicles should be returned filled with fuel and cleaned. If your vehicle is dirty and you can't clean it when you come in, make arrangements to return the next day and clean it. If there is something wrong with the vehicle, report it to the Range Barn Coordinator as soon as possible.

Cooperation and good stewardship are very important when using departmental or project vehicles and equipment. Protection and security of these items are also important. If no one is around the Range Barn compound when you leave, please lock the doors and gate. Abuse of state vehicles will result in loss of driving privileges.

Offices and Computers

It is the responsibility of the major professor to notify the departmental administrative assistant of the impending arrival of new students or the return of old ones; or research associates, technicians, and post-doctorates. Time of such notification is used by the department to establish precedence. It is to your advantage to advise the department as soon as change in status is known. If possible, desks will be assigned when new personnel arrive on campus or their name will be placed on the priority list. Once assigned a desk, it is your responsibility to utilize it to the fullest.

Office space and desks are at times a scarce resource. If desks are used only as book storage areas or "part-time" study areas, you will be asked to share the desk with another such student or possibly to find a carrel in the library. People in a low priority category occupying desk space may be displaced by one in a higher priority category without desk space. The University Library has available a number of carrels with lockable book shelves. You may wish to occupy one of these until departmental office space and a desk becomes available.

Staff computers may never be used by graduate students.

Copying and Office Supplies

The Department makes every effort to support graduate research to the fullest extent possible. However, there are some stipulations we place on the use of office supplies and equipment provided by the state of Texas. General office supplies (e.g. paper, pens, etc.) are available to faculty and staff. They are not available for graduate student use. You may not use departmental office supplies, paper, pens, etc. The Department has a copy machine that may be used by graduate students for work related to your teaching (TA's) or research (RA's) projects. Individual use is monitored and may be restricted if you exceed Department standards.

MISCELLANEOUS POLICIES

Travel

Official travel out of town overnight in project or private vehicles requires completion of a Travel Authorization Form. These forms must be **completed and approved prior to the planned trip**. Please visit with the Departmental travel staff (JoLynne Stark) and see your major professor to get appropriate paperwork submitted **before you travel**. You will also need to arrange for equipment use, P-cards, and departmental support before you travel. Students who are not on the Department's approved drivers list may not drive University/department vehicles.

Staff

Staff within office suites are primarily responsible for different Departmental tasks (e.g., travel, purchasing, budgets, accounting, and payroll). They are not to do secretarial work for graduate students.

Alcohol

Texas law prohibits consumption of alcoholic beverages in state vehicles and on all state property. Unopened containers of alcoholic beverages may be carried in state vehicles. Drinking of such beverages in public is, however, illegal and any person in charge of a field trip or property is responsible for such conduct. Students' refusals to comply with these laws could leave no option but to request the assistance of law enforcement officials.

Smoking

Texas Tech prohibits smoking tobacco in all structures on campus. Your major advisor may have additional non-smoking policies for the vehicles, housing or other facilities provided for you.

Drugs

In order to continue receiving federal monies for teaching and research, TTU has agreed to maintain a drug-free workplace. Accordingly, discovery of and use of illegal (non-prescription) drugs while on university property or while conducting university business elsewhere requires notification of appropriate authorities. Conviction will be followed by dismissal.

Vacations

Part-time appointments DO NOT carry provisions for vacation or sick leave. Arrangements for absences from campus or field sites should be worked out between you and your major professor. You should indicate when you expect to be absent. If intended leave conflicts with needs for data collection, analysis or preparation of reports to administrators or funding agencies, you may expect to have requests for extended leave denied. Student holidays are provided for undergraduates and do not necessarily apply to graduate students. All leave time must be approved by your major professor.

Mail

A mail box is established for each new graduate student. Please see the departmental staff for establishing a new box or leaving a forwarding address.

Keys

Appropriate keys are obtained from the Physical Plant Lock Shop (Room 110). Pam Bailey will assist you in obtaining permission to have keys issued by the Lock Shop. It is illegal to duplicate university keys or have unauthorized keys in your possession. After the completion of your program, the keys should be returned.

Safety Regulations

Safety standards for Texas Tech University are regulated by the Attorney General's Office and enforced by the Texas Department of Health. These standards are at least as stringent as O.S.H.A. (Occupational Safety and Health Administration) requirements. Stiff fines and penalties exist for noncompliance.

Your major professor and the Department Chemical Hygiene Coordinator assure that proper training and health and safety precautions are in place. However, it is your responsibility to familiarize yourself with the TTU Operating Procedures (O.P.'s) pertaining to the activities you will engage in and the places you will be working. Additional (detailed) information can also be found on the Environmental Health and Safety web page <http://ehs-server.ehs.ttu.edu/Web/Default.aspx>.

Before starting any analytical procedure you must be trained in the safe use and handling of chemicals involved. You must sign a form attesting to this training. Material Safety Data Sheets (M.S.D.S) for all chemicals in the department are located in room 210 in the 4-drawer green file cabinet. Please read and refer to any of these for chemicals you will be handling. They contain all the necessary information regarding the chemical.

University O.P. 60.17 outlines the TTU Chemical Hygiene Plan. Each laboratory should also have its own lab notebook defining activities that are approved for that lab. Please visit with your major advisor about any proposed use in an NRM lab. You may obtain assistance from the Department Chemical Hygiene Coordinator for any substance that requires an M.S.D.S. This will basically be anything that contains a chemical. An inventory must be maintained and an M.S.D.S. must be available for each and every chemical in the Department. Please also inform the Department Chemical Hygiene Coordinator about any chemical that is to be brought into any Department Laboratory. This is the only way that accurate records can be maintained.

All containers within the labs must be appropriately labeled. Proper labeling requires that each container clearly indicates what is in the container, what kind of hazards associated with it, when it was made or manufactured, and who is responsible for that container. There are inventory lists and signs posted in each lab. Please do not remove or relocate any of these.

***** Food and drinks are prohibited in all labs. If your offices open onto a lab, food and drink can only be in your office while doors to labs are CLOSED *****

Animal Use Care and Use Regulations

Texas Tech University's Animal Care and Use Committee (ACUC) requires that an appropriate Animal Use Form (AUF) be submitted for all research projects involving the handling of live vertebrates, including animals used for food and fiber production. This form must either be submitted by the Principal Investigator by the time the research proposal is submitted to the Office of Research Services or no later than the time that you meet with your graduate committee.

The ACUC form requires a detailed description of the handling protocol, purpose of the investigation, justification for the use of the specified animals, and ensures that all individuals handling animals have appropriate training and protection. Approval or disapproval is based on compliance to the Animal Welfare Act, The Public Health Service Policy on Humane Care and Use of Animals by Awardee Institutions, and the National Institutes of Health Guide for the Care and Use of Laboratory Animals. Approval of submitted protocols may take at least 1 month and must be granted before any animal may be ordered or used within Texas Tech University or handled in the wild.

Obtain and submit the ACUC form to the ACUC office Box 43132; 742-3722 ext 286; <http://www.depts.ttu.edu/iacuc/>. The current ACUC Chair, Dr. Mark Wallace, Department of Natural Resources Management, is available to assist you with your form. The ACUC regularly meets to review all applications. All forms are renewed annually. Forms must be signed by the Faculty PI or Graduate Advisor. All animal users must enroll in or provide evidence that they have appropriate training (as defined by ACUC committee) and must participate in the ACUC Occupational Health and Safety Program.

THE MAJOR PROFESSOR

- Advises students of opportunities and appropriateness of intended coursework and research for meeting career objectives.
- Sees that the new student obtains keys, desk, and mailbox.
- Advises on selection of graduate committee, coursework, and research plan.
- Organizes and attend all graduate committee meetings, including seminars.
- Advises as needed during progress of research.
- Organizes comprehensive exams (Ph.D. only).
- Reads and critiques drafts of thesis or dissertation in a timely and constructive manner.
- Attends seminars and helps students prepare presentations.
- Organizes final defense.
- Reads and signs final version of thesis.
- Answers requests for recommendation concerning employment or further study
- Makes sure that funded research results in publication in the open literature.

THE DEPARTMENT GRADUATE ADVISOR

The Department Graduate Advisor is generally a tenured full professor appointed by the Department Chair. Our department has historically maintained this position to ensure we maintain a quality product (graduate students), complete and archive the required paperwork, ensure the quality of the degrees awarded and, do not embarrass the Department at the Graduate School or University level.

The Department Graduate Advisor has responsibility to ensure that the graduate degree process is followed and has the authority to:

- Approve composition of committee (based on graduate school requirements)
- Approve changes to composition of the graduate committee
- Review and approve degree plan to:
 - Ensure plan meets Dept course requirements, Graduate School credit hour requirements, semester hour enrollment requirements, TTU residency requirements, and that graduate committee membership meets Grad School requirements
- Assure application to candidacy is complete
- Assure copies of results of exams: (qualifying exam, comprehensive exam, final exam) are maintained to resolve potential conflicts with Graduate School.

GRADUATE STUDENT – ANNUAL PROGRESS EVALUATION

Student _____ Degree _____ Entering Date _____

First Semester	NO	YES	DUE DATE
Rough Draft of proposal	_____	_____	_____
Degree Program (classes)	_____	_____	_____
Second Semester			
Approved Proposal (by major advisor)	_____	_____	_____
First Committee Meeting	_____	_____	_____
Data Collection			
First Year (summarized and approved)	_____	_____	_____
Second Year (summarized & approved)	_____	_____	_____
Writing Progress			
Data Analysis	_____	_____	_____
Rough Draft complete	_____	_____	_____
Final draft to advisor	_____	_____	_____
Final draft to committee	_____	_____	_____
Grades (3.0 GPA)			
Examinations			
Preliminary Exam	_____	_____	_____
Comprehensive Exam	_____	_____	_____
Defense	_____	_____	_____

Evaluation (circle one)

Satisfactor
y
Unsatisfactory

Written comments on next page (yes or no)

SIGNATURES

Student _____, Advisor _____

Department Graduate Advisor _____

GRADUATE STUDENT – ANNUAL PROGRESS EVALUATION

Student _____

Comments:



Required Steps for the MASTER'S DEGREE

ACTION		INITIATED THROUGH	SUBMITTED TO	TIME
1	Plan courses for degree	Graduate Advisor	Graduate Advisor	Prior to registration
2	Set up thesis advisory committee and title, if applicable	Graduate Advisor	Graduate Advisor	Prior to filing "Program for the Master's Degree and Admission to Candidacy" form
3	File "PROGRAM FOR THE MASTER'S DEGREE AND ADMISSION TO CANDIDACY" form (Not to be confused with the "Statement of Intention to Graduate" form, see #6 below)	Graduate Advisor or Chair, Advisory Committee	Graduate School Enrollment Management	After first semester of master's coursework, no later than the posted deadline
4	File changes in degree program, as necessary	Graduate Advisor or Chair, Advisory Committee	Graduate School Enrollment Management	As needed
5	Enroll in semester of graduation (at least 3 hours of thesis, if defending thesis)	Graduate Advisor or Chair, Advisory Committee	Registrar	Semester of graduation
6	File "STATEMENT OF INTENTION TO GRADUATE" form, including official title of thesis, if applicable. (Not to be confused with the "Program for Master's Degree and Admission to Candidacy" form see #3 above)	Student	Graduate School Enrollment Management	Semester of graduation (One must be filed for each intended graduation semester)
7	Schedule final comprehensive examination and/or defense. Send email to the Thesis Coordinator indicating the time and date of the defense.	Student	Graduate School Thesis Coordinator	Semester of graduation (usually about 6 weeks before graduation)
8	After the exam, the advisor sends REPORT ON COMPREHENSIVE EXAM FORM to Enrollment Management.	Graduate Advisor (nonthesis option)	Graduate School Enrollment Management	By posted deadline
9	After defense, obtain committee signatures on the ORAL DEFENSE and THESIS DISSERTATION APPROVAL FORM and submit to Graduate School	Student (thesis option)	Graduate School Thesis Coordinator	Prior to deadline during semester of graduation
10	Thesis-Dissertation fee, if applicable	Student (thesis option)	Student Business Services	Prior to deadline during semester of graduation
11	After incorporating committee changes, submit .pdf file of thesis to the ETD site for official review	Student (thesis option)	Graduate School Thesis Coordinator	Semester of graduation (usually 5 weeks before graduation date)
12	Final grade for thesis hours (A or B) Grade will be "CR" until final semester	Chair, Advisory Committee	Registrar Final grade roll	End of semester
13	Submit official .pdf of thesis to ETD web site (MM students submit PDF programs to ETD site and turn CDs of performances in to the Graduate School)	Student	Graduate School Thesis Coordinator	Prior to deadline

Required Steps 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, Advisory Committee	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