

GRADUATE STUDENT HANDBOOK

2022-2023



**THE DEPARTMENT OF ENVIRONMENTAL
TOXICOLOGY**

&

**THE INSTITUTE OF ENVIRONMENTAL AND
HUMAN HEALTH (TIEHH)**

TEXAS TECH UNIVERSITY



TEXAS TECH UNIVERSITY

College of Arts & Sciences

Department of Environmental Toxicology

Dear New Student in Environmental Toxicology:

Welcome to the Department of Environmental Toxicology at Texas Tech University. Our department has two institutes: Institute of Environmental and Human Health (TIEHH) and the Institute for Forensic Science (IFS). We believe that you have entered a program that makes a concerted effort to provide an outstanding education in Environmental Toxicology. The faculty and staff are committed to the quality of your experience here. Consistent with this commitment, this "Graduate Student Handbook" serves as a tool to assist you in achieving your goals in graduate education. The handbook will not cover all the issues that come up related to the steps that you will need to take to achieve your graduate degree in Environmental Toxicology, so please ask us when you need additional information. Also, we annually review and update our handbook, so if you have suggestions, please let us know.

Upon entering our program, you will not only receive our best effort in graduate education and research opportunities to enhance your growth, it will also start a many-year interaction both here and into the future when you graduate and begin your career. We have a great network of former students all over the United States and internationally who are engaged in Environmental Toxicology. As you review this handbook and the suggestions that it makes related to starting your graduate education at Texas Tech, you become part of a network that will continuously seek to identify opportunities to enhance your future professional development. However, that network can only be effective if we stay in communication.

Again, welcome to our program and Texas Tech. We trust that you will enjoy your experience both professionally and personally. We welcome your comments for improved communication regarding your steps forward in the graduate education process. I generally have an open door policy, so when you have a few spare minutes feel free to stop by and bring me up to date on your progress.

Best wishes for a great semester,

Jaclyn Cañas-Carrell, Ph.D.
Interim Chairperson
Presidential Professor of Research Excellence
Department of Environmental Toxicology

**WE BUILD
INNOVATORS**

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An EEO/Affirmative Action Institution

ENTX GRADUATE PROGRAM

The Environmental Toxicology graduate program offers **Doctor of Philosophy** and **Master of Science** degrees with a major in Environmental Toxicology, and a combined degree leading to a joint **J.D./M.S.** degree in cooperation with the Texas Tech University School of Law.

Generally, a strong background in the natural, physical, or health sciences will provide the necessary preparation. Students interested in pursuing a degree must complete the Graduate School application. Qualified applicants need to meet the entrance requirements of the Graduate School at Texas Tech University, as well as the Department of Environmental Toxicology.

The Ph.D. program is composed of 72 hours of course work beyond the bachelor's level emphasizing the principles of toxicology, the environmental fate of chemicals, statistical approaches to study design and data handling, and seminars in Environmental Toxicology. Supplemental course work, research and dissertation hours are chosen by the student with the guidance of their committee. Thus, allowing for focus on the student's particular research emphasis. Students pursuing a doctoral degree must pass a written exam, perform an original research project, prepare a written dissertation, and defend their work in a public defense.

The M.S. program is composed of 36 hours of coursework beyond the bachelor's level emphasizing the principles of toxicology, the environmental fate of chemicals, statistical approaches to study design and data handling, and seminars in Environmental Toxicology. Supplemental coursework, research and thesis hours are chosen by the student with the guidance of their committee. Thus, allowing for focus on the student's particular research emphasis. Students pursuing a M.S. degree must perform an original research project, prepare a written thesis, and defend their work in a public defense.

The J.D./M.S program is composed of 24 hours of M.S. coursework for Law School students, 12 hours of J.D. course work for M.S. students, which is taken out of their original degree requirements. This is a 36 hour dual degree program.

All degree programs within the Department of Environmental Toxicology require students to take the following core courses: Introductory Seminar in Environmental Toxicology (ENTX 6105), Statistical Applications in Environmental Toxicology and Stats Lab (ENTX 6385 and 6100), Principles of Toxicology I and II (ENTX 6325 and 6326), and Chemical Sources and Fates in Environmental Systems (ENTX 6445). Students are required to make at least a B- in each of these courses. **If a student is on a departmental stipend and does not achieve at least a B- in a core course, the stipend will be revoked up to a year until the student meets at least the minimum grade requirement. If the student fails to achieve a B- or higher after retaking the course, the student will be removed from the program.**

Environmental Toxicology, Ph.D.

About the Environmental Toxicology Doctoral Program

The Department of Environmental Toxicology offers a graduate program within the College of Arts and Sciences as well as fixed and variable credit courses for undergraduates. The courses are designed to provide undergraduate students the opportunity to learn about and conduct scientific research in environmental toxicology. Because of the multidisciplinary nature of environmental toxicology, prospective students should contact the Graduate Program Coordinator to discuss prerequisites and prior training. Generally, a strong background in the natural, physical, or health sciences will provide the necessary preparation. Students interested in pursuing a degree must complete the online application to the [Graduate School](#). Interested students should contact faculty within the department.

The Department of Environmental Toxicology integrates the efforts of Texas Tech University, the School of Law, and the Texas Tech University Health Sciences Center in a joint venture to assess the impacts of toxic chemicals and other stressors on the natural environment. Attracting graduate students at both the master's and doctoral level, The Department of Environmental Toxicology includes faculty with backgrounds in biological sciences, medicine, epidemiology, biostatistics, engineering, chemistry, computer science, law, mathematics, pharmacology, physiology, and wildlife biology.

The Ph.D. program (72 hours) is composed of coursework emphasizing the principles of toxicology, the environmental fate of chemicals, statistical approaches to study design, data handling, and data analysis, and seminars in environmental toxicology. Supplemental coursework, research, and dissertation hours are chosen by the student with the guidance of their committee, allowing for focus on the student's particular research emphasis. Students pursuing this degree must perform an original research project, prepare a written dissertation, and defend the work in a public defense.

Ph.D. Core Courses

- ENTX 6100 – Graduate Seminar: Stats Lab (1)
- ENTX 6105 – Introductory Seminar in Environmental Toxicology (1)
- ENTX 6325 – Principles of Toxicology I (3)
- ENTX 6326 – Principles of Toxicology II (3)
- ENTX 6385 – Statistical Applications in Environmental Toxicology (3)
- ENTX 6445 – Chemical Sources and Fates in Environmental Systems (4)

Ph.D. Laboratory-Based Course Requirement (6 hours, any combination of lecture and lab)

- ENTX 6327 – Molecular Toxicology (3)

- ENTX 6328 – Molecular Methods in the Toxicology Laboratory (3)
- ENTX 6351 – Analytical Toxicology Lecture (3)
- ENTX 6352 – Analytical Toxicology Laboratory (3)

Ph.D. Seminars (6 hours)

- ENTX 6115 – Seminars (6)

Ph.D. Broadening Courses (6 hours)

- ENTX 6300 – Advanced Topics in Environmental Toxicology (3)
- ENTX 6312 – Biological Threats in the Environment (3)
- ENTX 6314 – Chemical Warfare and Protective Countermeasures (3)
- ENTX 6365 – Fundamentals of Aquatic Ecotoxicology (3)
- ENTX 6371 – Procedures and Techniques in Ecological Risk Assessment (3)

Courses that were not taken to fulfill the Laboratory–Based Course Requirement:

- ENTX 6327 – Molecular Toxicology (3)
- ENTX 6328 – Molecular Methods in the Toxicology Laboratory (3)
- ENTX 6351 – Analytical Toxicology Lecture (3)
- ENTX 6352 – Analytical Toxicology Laboratory (3)

Ph.D. Research (hours after core, laboratory-based courses, seminars, and broadening to reach 72hrs)

- ENTX 7000 – Research (varies)

Ph.D. Dissertation (12 hours)

- ENTX 8000 – Dissertation (12)

Environmental Toxicology, M.S.

About the Environmental Toxicology Master's Program

The Department of Environmental Toxicology offers a graduate program within the College of Arts and Sciences as well as fixed and variable credit courses for undergraduates. The courses are designed to provide undergraduate students the opportunity to learn about and conduct scientific research in environmental toxicology. Because of the multidisciplinary nature of environmental toxicology, prospective students should contact the Graduate Program Coordinator to discuss prerequisites and prior training. Generally, a strong background in the natural, physical, or health sciences will provide the necessary preparation. Students interested in pursuing a degree must complete the online application to the [Graduate School](#). Interested students should contact faculty within the department.

The Department of Environmental Toxicology integrates the efforts of Texas Tech University, the School of Law, and the Texas Tech University Health Sciences Center in a joint venture to assess the impacts of toxic chemicals and other stressors on the natural environment. Attracting graduate students at both the master's and doctoral level, The Department of Environmental Toxicology includes faculty with backgrounds in biological sciences, medicine, epidemiology, biostatistics, engineering, chemistry, computer science, law, mathematics, pharmacology, physiology, and wildlife biology.

The M.S. program (36 hours) is composed of coursework emphasizing the principles of toxicology, the environmental fate of chemicals, statistical approaches to study design, data handling, and data analysis, and seminars in environmental toxicology. Supplemental coursework, research, and thesis hours are chosen by the student with the guidance of their committee, allowing for focus on the student's particular research emphasis. Students pursuing this degree must perform an original research project, prepare a written thesis, and defend the work in a public defense.

M.S. Core Courses

- ENTX 6100 – Graduate Seminar: Stats Lab (1)
- ENTX 6105 – Introductory Seminar in Environmental Toxicology (1)
- ENTX 6325 – Principles of Toxicology I (3)
- ENTX 6326 – Principles of Toxicology II (3)
- ENTX 6385 – Statistical Applications in Environmental Toxicology (3)
- ENTX 6445 – Chemical Sources and Fates in Environmental Systems (4)

M.S. Seminars (4 hours)

- ENTX 6115 – Seminars (4)

M.S. Broadening Courses (6 hours)

- ENTX 6300 – Advanced Topics in Environmental Toxicology (3)
- ENTX 6312 – Biological Threats in the Environment (3)
- ENTX 6314 – Chemical Warfare and Protective Countermeasures (3)
- ENTX 6327 – Molecular Toxicology (3)
- ENTX 6328 – Molecular Methods in the Toxicology Laboratory (3)
- ENTX 6351 – Analytical Toxicology Lecture (3)
- ENTX 6352 – Analytical Toxicology Laboratory (3)
- ENTX 6365 – Fundamentals of Aquatic Ecotoxicology (3)
- ENTX 6371 – Procedures and Techniques in Ecological Risk Assessment (3)

M.S. Research (hours after core, seminars, and broadening to reach 36hrs)

- ENTX 7000 – Research (varies)

M.S. Thesis (6 hours)

- ENTX 6000 – Thesis (6)

Environmental Toxicology, J.D./M.S.

About the J.D./M.S. in Environmental Toxicology Dual Degree Program

The Department of Environmental Toxicology and the Texas Tech School of Law provide students an opportunity to combine science and law in studying contemporary environmental and public health problems. A dual degree program in Environmental Toxicology is one way to enrich the environmental curriculum to the advantage of both law and graduate students. The dual degree candidate must choose to pursue both degrees by the end of the third or fourth semester in law school, and must meet admission requirements of the Graduate School and Environmental Toxicology. Typically, depending on the amount of leveling work required, both degree programs can be finished within four years, including summer session courses.

Programs' Requirements	
Traditional J.D. Degree Requirements	90hrs
Traditional M.S. (ENTX) Degree Requirements	36hrs
Total	126hrs

Joint Degree Program Requirements	
J.D. Degree Requirements	78hrs
J.D. Degree Credit	12hrs
Total	90hrs
M.S. Degree Requirements	24hrs
M.S. Degree Credit	12hrs
Total	36hrs

Dual J.D./M.S. in Environmental Toxicology Degree Program Description

The dual J.D./M.S. in Environmental Toxicology degree is available to law students enrolled in law school who have met the GRE (LSAT) and other requirements for admission to the Graduate School and to the ENTX graduate program. Law students interested in the dual degree must apply to the ENTX program through the Graduate School application.

The first year of course work will be confined to the law school. Starting with the second year and summer sessions, a student may select among the ENTX courses listed below to satisfy a maximum of twelve (12) credit hours toward the J.D. degree. The list of ENTX courses accepted for credit toward the dual degree may change, subject to law school approval, and any approved course must be graduate-level or require graduate-level work by enrolled law students. All ENTX or other non-law courses applied toward a dual degree must be approved either by the law faculty or the Office of the Dean before being taken by a law student for credit.

The Law School will give 12 hours of credit toward the J.D. degree for completion of the M.S. degree courses listed below which have been approved by the Law School faculty.

Course Number	Course Name	Credits	Proposed Semester of Completion	Grade
ENTX 6000	Master's Thesis*	6		
ENTX 6100	Graduate Seminar: Stats Lab*	1		
ENTX 6105	Introductory Seminar in Environmental Toxicology*	1		
ENTX 6115	Interdisciplinary Seminar in Environmental Toxicology	1		
ENTX 6235	Principles of Toxicology I**	3		
ENTX 6326	Principles of Toxicology II**	3		
ENTX 6351	Analytical Toxicology Lecture	3		
ENTX 6371	Procedures and Techniques in Ecological Risk Assessment	3		
ENTX 6385	Statistical Applications in Environmental Toxicology*	3		
ENTX 6445	Chemical Sources and Fates in Environmental Systems**	4		

*The TTU School of Law does not give credit for these courses, but they are required for the M.S. degree in Environmental Toxicology.

**These are required courses for the M.S. degree in Environmental Toxicology.

ENTX will give 12 hours of credit toward the M.S. in Environmental Toxicology degree for completion of the J.D. degree courses listed below which have been approved by ENTX faculty.

Course Number	Course Name	Credits	Proposed Semester of Completion	Grade
LAW 6006	Law and Biotechnology	2-3		
LAW 6010	Global Biosecurity Law	2-3		
LAW 6025	Land Use Planning	2		
LAW 6027	Water Law	2-3		
LAW 6079	Administrative Law	3-4		
LAW 6254	Agricultural Law	2		
LAW 6302	Energy Law	3		
LAW 6307	Nanotechnology Law	3		
LAW 6319	Introduction to Emerging Technologies Law and Policy ***	3		
LAW 6327	Environmental Law***	3		

***Dual J.D./M.S. in Environmental Toxicology candidates must take Environmental Law and Introduction to Emerging Technologies Law and Policy courses as additional law school requirements for the program.

J.D./M.S. Core Courses

- ENTX 6100 – Graduate Seminar: Stats Lab (1)
- ENTX 6105 – Introductory Seminar in Environmental Toxicology (1)
- ENTX 6325 – Principles of Toxicology I (3)
- ENTX 6326 – Principles of Toxicology II (3)
- ENTX 6385 – Statistical Applications in Environmental Toxicology (3)
- ENTX 6445 – Chemical Sources and Fates in Environmental Systems (4)

J.D./M.S. Seminars (4 hours)

- ENTX 6115 – Seminars (1)
- ENTX 6327 – Environmental Law (3)

J.D./M.S. Broadening Courses (6 hours)

- ENTX 6351 – Analytical Toxicology Lecture (3)
- ENTX 6371 – Procedures and Techniques in Ecological Risk Assessment (3)
- LAW 6006 – Law and Biotechnology (2-3)
- LAW 6010 – Global Biosecurity Law (2-3)
- LAW 6025 – Land Use Planning (2)
- LAW 6027 – Water Law (2-3)
- LAW 6079 – Administrative Law (3-4)
- LAW 6254 – Agricultural Law (2)
- LAW 6302 – Energy Law (3)
- LAW 6307 – Nanotechnology Law (3)

J.D./M.S. Research (hours after core, seminars, and broadening to reach 36hrs)

- ENTX 7000 – Research (3)
- LAW 6319 – Introduction to Emerging Technologies Law and Policy (3)

J.D./M.S. Thesis (6 hours)

- ENTX 6000 – Thesis (6)

ENVIRONMENTAL TOXICOLOGY COURSE LIST

6000. Master's Thesis (V1-6).

6100. Graduate Seminar (1:1:0). Prerequisite: Graduate standing or consent of instructor. A participatory seminar where graduate students condense, review, and present research findings on focused topics. Subject matter varies by semester. May be repeated for credit.

6105. Introductory Seminar in Environmental Toxicology (1:1:0). Prerequisite: Graduate Standing. A tour through the discipline of Environmental Toxicology focusing on its composition and workings. Demonstrations of laboratory, field, computational presentation, safety, quality assurance, permitting and career components.

6115. Interdisciplinary Seminar in Environmental Toxicology (1:1:0). Prerequisite: Graduate standing or consent of instructor. Seminar on timely topics by experts in aspects of environmental toxicology. Focuses on basic and applied research, regulatory decision-making, and industry perspectives. Required for all environmental toxicology students. May be repeated for credit.

6300. Advanced Topics in Environmental Toxicology (3:3:0). Special areas of current interest not generally covered in other courses. Content normally different each time offered. May be repeated for credit.

6312. Biological Threats in the Environment (3:3:0). Prerequisite: Background in biology, entomology, microbiology, parasitology, zoology, or consent of instructor. In-depth study of naturally-occurring zoonoses and other diseases, as well as disease pathogens that may be exploitable as biological weapon agents. Students will gain an understanding of historic and current biological threats, maintenance and transmission cycles of select zoonoses, and concepts of host and vector surveillance and control.

6314. Chemical Warfare Protective Countermeasures (3:3:0) Coverage of chemical warfare agents, their protective measures, and technologies. Suitable for science and engineering majors.

6325. Principles of Toxicology I (3:3:0). Prerequisite: Graduate standing in the department or consent of instructor. First half of a two-semester course. Examines the foundations of toxicological sciences. Covers principles, disposition, and first half of toxicity mechanisms.

6326. Principles of Toxicology II (3:3:0). Prerequisite: ENTX 6325. Second half of two-semester course. Covers remaining mechanisms, toxic agents, and applied toxicology.

6327. Molecular Toxicology (3:3:0). Prerequisite: ENTX 6325 and 6326 or consent of instructor. Molecular mechanisms and control phase I and phase II xenobiotic metabolizing enzymes, oxidative stress, and carcinogenesis. Emphasizes prototypical chemicals with multiple modes of action.

6328. Molecular Methods in the Toxicology Laboratory (3:3:0). Theoretical background and hands-on experience with molecular methods to understand and analyze adverse effects of toxicants at the molecular level.

6331. Reproductive and Developmental Toxicology (3:3:0). Prerequisite: ENTX 6325 and 6326 or consent of instructor. Mechanistic treatment of chemical effects on reproductive and developmental processes and the resulting impacts on reproductive function, fertility, and the developing offspring.

6332. Toxic effects and detection methods for biotoxins (3:3:0). Prerequisite: undergraduate background in biology, chemistry, microbiology, pathology, and pharmacology.

6332 (continued). Graduate background in Principle of Toxicology I (6325) and II (6326). The course provides a detailed examination of naturally-occurring biotoxins with focus on toxic and health effects detection methods of mycotoxins, bacteria toxins, and cyanobacteria toxins.

6351. Analytical Toxicology Lecture (3:3:0). Prerequisite: ENTX 6445 or consent of instructor. Theory of isolation, detection, identification, and quantification of toxic substances and their transformation products in environmental and biological samples.

6352. Analytical Toxicology Laboratory (2:0:2). Corequisite: ENTX 6351 or consent of instructor. Extraction, cleanup, and quantitative analysis of environmental chemicals and their degradates. Reinforces and applies theories taught in ENTX 6351.

6361. Environmental and Wildlife Toxicology (3:3:0). Prerequisite: Organic chemistry, ecology, or consent of instructor. Examines exposure and effects of chemicals in wildlife, their study in the lab and field, and use of conducting ecological risk assessments.

6365. Fundamentals of Aquatic Ecotoxicology (3:3:0). Prerequisite: ENTX 6325 and 6326 or consent of instructor. Chemical contaminant effects on physical, chemical, and biological interaction in lentic and lotic aquatic ecosystems. Covers sediment-benthos-organismal interactions, surface water hydrology, sediment transport, and chemical biotransformation.

6367. Advanced Wildlife Toxicology (3:3:0). Prerequisite: ENTX 6325 and 6326, 6345, or consent of instructor. Environmental contaminant effects on reproduction, health, and well-being of wildlife species and applications to ecological risk assessment.

6371. Procedures and Techniques in Ecological Risk Assessment (3:2:1). Prerequisite: ENTX 6325, 6326, and 6345. Emphasizes testing techniques, site assessment and monitoring procedures, regulatory requirements, and field and laboratory techniques for ecological risk assessments.

6385. Statistical Applications in Environmental Toxicology (3:3:0). Prerequisite: STAT 5302 or equivalent. Designed for students who wish to understand the interrelationships of statistical distributions and particular statistical approaches to environmental toxicology data analysis.

6391. Modeling and Simulation in Ecotoxicology (3:2:1). Model development, implementation and simulation applied to ecotoxicology: stressor responses, toxicokinetics, individual organism effects, individual-based models, population, community, landscape effects, parameter estimation, design and analysis of simulation experiments, and model validation.

6431. Biomarkers in Toxicology (4:2:2). Prerequisite: ENTX 6325 and 6326. Lecture and laboratory on biomarker theory and use. Biochemical, physiological, histological responses to chemical exposure, effects and susceptibility are studied. Laboratory stresses individual and team approaches.

6445. Chemical Sources and Fates in Environmental Systems (3:3:0). Prerequisite: Organic, analytical or environmental chemistry, or consent of instructor. Environmental phenomena and physical properties of chemicals are used to understand processes governing chemical fate in the environment from global to microcosm scales.

7000. Research (V1-12). Prerequisite: Graduate standing in Environmental Toxicology. Independent research carried out under the direction of a faculty advisor.

8000. Doctor's Dissertation (V1-12). Prerequisite: Advancement to doctoral candidacy. Doctoral dissertation research carried out under the supervision of the student's major advisor.

DOCTOR OF PHILOSOPHY IN ENVIRONMENTAL TOXICOLOGY

The purpose of the proposed Doctor of Philosophy degree program in Environmental Toxicology is to provide an academic structure through which students receive formal classroom education and strong guidance regarding complex research problems that evaluate toxic substances that are released into the environment. Doctoral graduates will be qualified to fill positions in universities, colleges, governmental agencies, foundations, and industry.

The objectives of the Doctor of Philosophy program in Environmental Toxicology are to provide researchers with the educational background and skills to:

1. Develop and manage nationally and internationally recognized research programs that utilize the expertise of toxicologists, chemists, engineers, wildlife biologists, ecologists, statisticians, and invertebrate biologists to determine the effects of environmental contaminants on humans and free-living populations of animals.
2. Increase our understanding of the fundamental mechanisms of toxic response in humans, wildlife, fish, and other biological resources,
3. Assess the direct and indirect effects of environmental contaminants on humans, wildlife, fish, and other biological resources,
4. Integrate research efforts with those of federal, state, and local regulatory agencies, private industry, and environmental groups to provide the highest quality scientific data upon which environmentally sound policy decisions can be made,
5. Provide classroom and laboratory instruction in Environmental Toxicology at the associate, baccalaureate, and graduate teaching levels, and
6. Interpret and communicate intramural and extramural technical data so that the general public as well as the scientific community will be able to develop informed opinions on the effects of toxic substances in the environment.

Deadlines and Time Limit

Although every effort will be made by both the Graduate Advisor and the student's major advisor to make the student aware of various university and department regulations and deadlines, it is ultimately the student's responsibility to see that these regulations are adhered to and that the deadlines are met. Please see the TTU Graduate School's website at www.depts.ttu.edu/gradschool for a complete list of deadlines.

Ph.D. Advisor/Committee

Supervision of each student is the responsibility of the student's major advisor, the dissertation committee, and the Environmental Toxicology program. During the first year in the program (no later than one month), students will identify a major advisor who will supervise the research project and the day-to-day activities of the student. By the end of the first year, a dissertation committee must be developed that will serve to provide breadth to the advisement and supervision of the student in course work, their research project and overall graduate experience. Program supervision will be maintained by annual reviews of student progress performed under the guidelines of the graduate program and reviewed by a subcommittee of program faculty.

Laboratory-based Course Requirement

All doctoral students are required to complete six (6) hours of laboratory-based courses as part of the course requirements to earn a Ph.D. Students may choose any of the following combinations to satisfy the 6 hour requirement:

Analytical Toxicology Module

ENTX 6351 Analytical Toxicology
Lecture
+
ENTX 6352 Analytical Toxicology
Laboratory

Molecular Toxicology Module

ENTX 6327 Molecular Toxicology
+
ENTX 6328 Molecular Methods
Laboratory

Analytical/Molecular Combo Option #1

ENTX 6351 Analytical Toxicology
Lecture
+
ENTX 6328 Molecular Methods
Laboratory

Analytical/Molecular Combo Option #2

ENTX 6327 Molecular Toxicology
+
ENTX 6352 Analytical Toxicology
Laboratory

Doctoral Degree Plan

All doctoral students must submit a "Doctoral Degree Plan Form" to Samantha Luna. It will be reviewed by Samantha and Dr. Greg Mayer will review and sign it. Samantha will then submit it to the Graduate School. This form lists all courses required for graduation transfer courses (if any) with the TTU equivalents, and should include all courses the student plans to take as well. Students can transfer graduate-level courses taken if there is a TTU equivalent, and Dr. Mayer has to approve the course(s) with a memo. Transfer credit for core courses must be approved by the teaching professor. The form should be submitted as soon as possible but **no later than the second year of doctoral work**. Changes can be made at any time, but they need to be approved by the advisory committee and submitted to Samantha.

Qualifying Examinations and Advancement to Candidacy

Each student pursuing a doctoral degree in Environmental Toxicology at Texas Tech University will be required to complete a qualifying examination, composed of a **written and an oral** component, prior to their advancement to candidacy. All required coursework (except research, dissertation, and seminar credit hours) for the degree must be completed prior to the examinations. The written examination will test the student's competence in the topics considered fundamental to the study of Environmental Toxicology, and its successful completion will be considered a prerequisite for advancement to the oral examination. The oral examination will be administered through the student's committee and will focus on topics covered in the written examination plus those topics deemed relevant by the student's committee.

Dissertation

The doctoral dissertation represents original research conducted by the student under the direction of their major advisor and advisory committee. Please provide one copy of your dissertation for the department to keep on file. Official copies are received electronically as ETD's. ETD documents must be prepared in accordance with the Graduate School's formatting guidelines. Please visit www.depts.ttu.edu/gradschool/academic/etd.php for more information.

Final Oral Examination and Defense of Dissertation

Students obtaining a doctoral degree will be required to pass a qualifying examination, complete a dissertation, and defend their dissertation in a final examination. The qualifying examination will be in the form of both a written and an oral exam. The dissertation represents a scholarly presentation of work performed under the guidance of the dissertation committee. The final examination will be given in the form of a public dissertation defense presentation, and a closed door session where committee members ask the student questions. Guidelines for the qualifying exam, dissertation, and final examination will follow those described in the Texas Tech University Graduate School Catalog.

Additional Graduation Requirements

During the semester of intended graduation, an "Intent to Graduate Form" must be submitted online at: <https://graduationapplication.app.texas-tech.edu/#/displayGradTerms> using your eRaider name and password. Doctoral students and their faculty mentor must secure a Dean's Representative, and then submit a "Master's and Doctoral Defense Notification Form" at least three weeks prior to the defense or no later than the posted deadline in the TTU Academic Calendar.

99 Hour Rule

This rule applies to all doctoral students: 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. Doctoral 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 the 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.



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, 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

MASTER OF SCIENCE IN ENVIRONMENTAL TOXICOLOGY

The purpose of the proposed Master of Science degree program in Environmental Toxicology is to provide students with graduate education in the specialized areas of science that comprise Environmental Toxicology. Further, the purpose is to provide an academic program which is based on advanced course work and which provides an excellent introduction to interdisciplinary research, and lastly prepares the student at this level for a productive and meaningful career as an environmental professional. This program will provide excellent preparation for entering a doctoral program in Environmental Toxicology, civil or environmental engineering, and environmental management or in related life science areas.

The objectives of the Master of Science degree in Environmental Toxicology are to provide students with the educational background and skills to:

1. Work as skilled entry-level research associates with a team of scientists directed by a Ph.D. level scientist in environmental research,
2. Work at mid-managerial levels as science administrators in governmental agencies or industry,
3. Manage related toxicology or natural resources research programs or subsidiary laboratories supporting major environmental research initiatives,
4. Provide classroom and laboratory instruction in Environmental Toxicology at the associate or baccalaureate teaching levels, and
5. Enter a doctoral program in Environmental Toxicology, Civil Engineering, or a related discipline at Texas Tech University or elsewhere with an awareness of the level of commitment and background required to complete a rigorous research-directed degree program.

Deadlines and Time Limit

Although every effort will be made by both the Graduate Advisor and the student's major advisor to make the student aware of various university and department regulations and deadlines, it is ultimately the student's responsibility to see that these regulations are adhered to and that the deadlines are met. Please visit the TTU Graduate School's website at www.depts.ttu.edu/gradschool for a complete list of deadlines.

M.S. Advisor/Committee

Supervision of each student is the responsibility of the student's major advisor, the student's thesis committee, and the Environmental Toxicology program. During the first semester in the program, students will identify a major advisor who will supervise the research project and the day-to-day activities of the student. By the end of the first year, a thesis committee must be developed that will serve to provide breadth to the advisement and supervision of the student in course work, his or her research project and his or her overall graduate experience. Program supervision will be maintained by annual reviews of student progress performed under the guidelines of the graduate program and reviewed by a subcommittee of program faculty.

Degree Program

All Master's students must submit a "Master's Degree Plan and Admission to Candidacy" form to Samantha Luna. It will be reviewed by Samantha and Dr. Greg Mayer will review and sign it. Samantha will then submit it to the Graduate School. This form lists all courses required for graduation, transfer courses (if any) with the TTU equivalents, and should include all courses the student plans to take as well. Students can transfer graduate-level courses taken if there is a TTU equivalent, and Dr. Mayer has to approve the course(s) with a

memo.

Transfer credit for core courses must be approved by the teaching professor. The form should be submitted as soon as possible ***but no later than the second semester of enrollment***. Changes can be made at any time, but they need to be approved by the advisory committee and submitted to Samantha.

Thesis

The Master's thesis represents original research conducted by the student under the direction of their major advisor and advisory committee. Official copies are received electronically as ETD's. ETD documents must be prepared in accordance with the Graduate School's formatting guidelines. Please visit

www.depts.ttu.edu/gradschool/academic/etd.php for more information.

Final Oral Examination and Defense of Thesis

All students obtaining a M.S. degree will be required to complete a thesis that represents independent work performed under the guidance of the advisory committee. A final comprehensive examination will be given in the form of a thesis defense presentation. Thesis and final examination guidelines will follow those outlined in the Texas Tech University Graduate School Catalog.



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 (non-thesis 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 Pay 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

TEXAS TECH GRADUATE SCHOOL INFORMATION

Graduate School – (806) 742-2787
Administration Building – Room 328

*Please let Samantha Luna or your faculty advisor contact the Graduate School for you. Please do not call the Graduate School directly with problems you are having, as most problems can usually be handled by email.

Graduate School Web Page

The Graduate School maintains a current web page, www.depts.ttu.edu/gradschool, that provides several items of interest to graduate students:

- Thesis and dissertation templates
- Contact information for Graduate School staff members
- TTU Graduate Catalog
- Academic departmental information
- Information about various student services
- Graduation deadlines and requirements
- Information about the Graduate Student Advisory Council and the Graduate Center

Graduate Center

The Graduate Center is a 6,000-sq. ft. facility dedicated to exclusive use by Texas Tech's graduate students and postdoctoral fellows. The center is located at the heart of the Lubbock campus and serves as a hub for professional and career development and graduate student and postdoctoral life activities. A full listing of programming is available on the **Graduate School Events** calendar.

The Graduate Center is host to numerous academic support services, including the **Graduate Writing Center**. The writing center provides a range of facilities including computer lab, meeting space, and an abundant amount of networking, leisure, and workspace.

The facility is open to all graduate students and postdoctoral fellows 24/7 and 365 days a year using your Texas Tech ID or Mobile ID app on your Android or iOS phone or tablet. The Graduate Center is located in the west basement of the Administration Building across the parking lot from the Student Union Building.

Academic Probation and Suspension

If a student's graduate GPA for a particular semester falls below 3.0, the student will be placed on academic probation. (A 3.0 average is the minimum requirement of the Graduate School. Individual academic areas may, and often do, impose a higher grade-point average for continuation in their academic programs.) A student must make a 3.0 GPA or better in the next semester in which he or she is enrolled. Failure to do so, or to maintain a 3.0 current GPA in each succeeding semester, will result in academic suspension from further enrollment as a graduate student or in graduate courses at Texas Tech University. Regulations governing scholastic probation are based on semester grade-point averages and will be applied regardless of overall grade-point average. Any student who has been suspended must appeal to the Graduate School if reinstatement is desired. Appeal of suspension may be made in writing to the Dean of the Graduate School.

If the Dean rejects the student's appeal, the student may request a hearing before the Student Affairs Committee of the Graduate Council. This committee will render a decision as to whether or when the student may be readmitted to graduate study. A student 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. See the *Student Affairs Handbook* for further information.

Continuation in the Graduate School

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 policies of the institution. The Graduate School reserves the right to place on probation, to 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 who are admitted to the Graduate School or to a degree program on condition of maintaining a required GPA are automatically on admissions notice. Failure to fulfill the conditions stipulated at the time of admission will result in termination from the Graduate School.

TTU eRaider Username

Every student must have an eRaider account in order to register and access student records over the internet. You should receive an email from TTU with instructions on how to activate your eRaider account. If you have any questions, please call the IT department at (806) 742-4357 to set up your account.

Registering for Classes

Registering for classes can be done at: www.raiderlink.ttu.edu.

1. Log on to Raiderlink
2. Click on the "MyTech" tab
3. Under "Manage My Enrollment", click on "Registration"
4. Click on "Add or Drop Classes"
5. Click on "Register for Classes"
6. Select Term
7. Type in CRN number or subject and course number
8. Continue to enter CRNs until you have reached at least 9 credit hours
9. Click on "Submit"

Paying Tuition

You may pay your tuition online when you are logged on to the Raiderlink system by:

1. Click on the "MyTech" tab.
2. Under "Manage My Finances", click on "Student Business Services"
3. Click on "eBill"

You may also pay your bill by visiting Student Business Services in West Hall room 301 or by calling them at (806) 742-3272.

GRADUATE ENROLLMENT POLICY

Policy/Procedure – OP 64.02 (as of 7/24/20)

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. As of September 1, 2000, students with 130+ doctoral hours will pay out-of-state 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 minimal requirements, including research and appropriate special studies 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 & Schools (SACS) 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 SACS 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.

EMPLOYMENT OF STUDENT EMPLOYEES

Policy/Procedure – OP 70.27 (as of 6/18/20)

1. Definition of Terms

- a. *Graduate Assistant (GA)* – A graduate student who is currently enrolled in the Graduate School and who is also employed by the university to perform work that utilizes knowledge beyond undergraduate academic studies in capacities other than teaching or research.
- b. *Graduate Part-Time Instructor (GPTI)* – A graduate student who is currently enrolled in the Graduate School and who is also employed by the university in support of its teaching mission. GPTIs must have at least 18 graduate hours in the field of teaching responsibilities; therefore, in accordance with the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), GPTIs may have sole responsibility for the course(s) they teach.
- c. **Research Assistant** – A graduate student who is currently enrolled in the Graduate School and who is also employed by the university to perform research activities or other such activities to assist the department's research efforts in support of the university's research mission.
- d. *Teaching Assistant (TA)* – A graduate student who is currently enrolled in the Graduate School and who is also employed by the university in support of its teaching mission. Teaching Assistants typically have fewer than 18 hours of graduate work in the field of teaching responsibilities; therefore, in accordance with the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), Teaching Assistants do not have sole responsibility for the course(s) they teach.
- e. *Student Assistant* – An undergraduate or graduate student who is currently enrolled in at least 6 hours with the university and is employed to perform work that does not require academic training at the graduate level.
- f. *Student Assistant - External* – An undergraduate or graduate student who is currently enrolled in at least 6 hours in an institution of higher education other than Texas Tech and who is also employed to perform work as assigned by a supervisor.
- g. *High School Student Worker* – A high school student who is currently enrolled in high school and who is also employed to perform work that does not require academic training at the college level.
- h. *Food Service Student Assistant* – A student who is currently enrolled in at least 6 hours with the university and who is also employed to perform work as assigned by the supervisor and who is assigned work within Hospitality Services.
- i. *Community Advisor (CA)* – A student who is currently enrolled in at least 12 hours during the fall and spring semesters and 6 hours during each summer session with the university and who is also employed by University Student Housing to serve as a live-in member of the Residence Life staff in exchange for room, board, and stipend.

2. General Policies

a. Student Employment

An individual who is enrolled as a student may be employed to perform part-time work incidental to his/her academic training in certain occupational categories that require student status as a condition of employment. These occupational categories are:

Graduate Assistant
Graduate Part-Time Instructor
Research Assistant
Teaching Assistant
Student Assistant
Student Assistant - External
High School Student Worker
Food Service Student Assistant
Community Advisor

b. Conditions of Employment

(1) A student employee (with the exception of a High School Student Worker and Student Assistant - External) must be currently enrolled as a student at Texas Tech as a condition of employment and is expected to be in good academic standing and making satisfactory progress toward a degree. An individual previously enrolled as a student in the spring term, or who is expected to enroll in the fall term, may be employed as a student employee between the spring and fall terms. Note: Graduating students should be terminated at the end of the semester in which they graduate unless they are expected to enroll in the next semester or, in the case of spring graduates, the fall semester. The employing department has the authority and responsibility to determine initial and ongoing eligibility for student employment. Failure to meet the enrollment requirements will be grounds for the department to withdraw the student's appointment and termination of employment status.

(2) Employment as a Graduate Assistant, Student Assistant, Student Assistant - External, High School Student Worker, or Food Service Attendant is non-exempt as determined by the nature of their job duties.

(3) Employment as a Teaching Assistant, Graduate Part-Time Instructor, Research Assistant, or Community Advisor is exempt as determined by the nature of their job duties.

(4) Because undergraduate and graduate student employees are both students and employees, employment is part-time and students employed in the occupational categories listed above in section 2.a. may not work for the university more than an average of 20 cumulative hours per week. In other words, when combined, all hours worked in all positions for Texas Tech may not average more than 20 hours per week or be greater than a .5 FTE.

c. Graduate Student Status

Individuals employed as Teaching Assistants, Graduate Part-Time Instructors, Research Assistants, or Graduate Assistants are expected to be enrolled in TTU's Graduate School full-time and comply with OP 64.02, Graduate Enrollment Policy, and OP 64.03, Graduate Students Employed as Teaching Assistants and Graduate Part-time Instructors.

d. Verification of Students' Status

It is the employing department's responsibility to routinely monitor student's school schedules to identify individuals who are not enrolled but are employed in positions requiring Texas Tech student status. Departments should initiate an ePAF to change the appointment to a staff position with any applicable benefits or separate the person from employment.

e. Federal Work-Study

The Financial Aid Office is responsible for supervision of all aspects of student employment involving recipients of Federal Work-Study through Financial Aid programs. The Financial Aid Office is responsible for:

- (1) Certifying eligibility of Federal Work-Study recipients for on-campus employment;
- (2) Establishing the earnings limit for student employees who are receiving Federal Work-Study or any other Financial Aid funds;
- (3) Developing policies for the Federal Work-Study Program;
- (4) Ensuring compliance with federal and state laws for the Federal Work-Study Program; and
- (5) Supervising solicitation of Federal Work-Study positions, both on campus and off campus.

f. Equal Employment Opportunity/Affirmative Action

All appointments to student positions shall be on the basis of qualifications, suitability, and student status without regard to race, color religion, sex, sexual orientation, gender identity, national origin, age, disability, genetic information, status as a protected veteran, or other protected categories, classes, or characteristics and in keeping with the state and federal laws and The Regents' Rules for Texas Tech University.

The availability of minorities and women applying for student positions is controlled by their representation in the student body; therefore, departments and units hiring student employees will need to make an extra effort to ensure adequate representation by minorities in the recruiting, selection, and appointment procedures.

Texas Tech University will reasonably accommodate qualified individuals with a disability so that they can apply for a job, perform the essential functions of a job, or enjoy the benefits and privileges of employment unless doing so causes a direct threat to these individuals or others in the workplace and the threat cannot be eliminated by reasonable accommodation or if the accommodation creates an undue hardship to Texas Tech. TTU OP 40.04, Access for Individuals with Disabilities, serves as the university's authoritative reference.

g. Salary Range

Normally, a student is appointed to a position at a salary rate between the minimum and maximum of the salary range for the appropriate category as identified in the current Texas Tech Pay Plan.

For additional information, refer to OP 70.14, Compensation Policy.

h. Benefits

All student employee appointments are considered temporary appointments and are not eligible for participation in the regular employee group insurance programs, leave accrual programs, retirement programs, holidays, or other benefits made available to regular employees.

The only exceptions are Teaching Assistants, Graduate Part-Time Instructors (GPTI), Research Assistants, and Graduate Assistants who are employed to work 20 hours per week (.5 FTE) for a period of at least four and one-half months per year and are eligible to participate in the Group Insurance Plans. For additional information, refer to OP 64.11, Insurance Coverage of Graduate Student Employees.

Graduate students who are not currently eligible for insurance but are appointed as a .5 FTE for a long semester will be eligible for insurance and should be designated as benefits eligible, unless the appointment specifies a separation date of less than four and one-half months. The premium sharing for employee's group insurance is charged proportionately based upon the funding for the salary payments made during each month.

It is the employing department's responsibility to ensure that student employees employed on a monthly salaried basis make up work time missed during holidays and between terms or process leave without pay requests for these periods.

In order to avoid negatively impacting a student's COBRA benefits, insurance eligible graduate students, who have not been appointed for the summer and are being separated between the spring and fall semesters, must be separated effective the end of the month in which the separation ePAF is processed. Separation ePAFs with retroactive termination dates on them will not be processed. Example: If a department terminates an insurance eligible graduate student at the end of May, the separation ePAF must be submitted to Human Resources before the end of May. If the separation ePAF is received after the end of May, the date of the separation will be the end of the month in which the separation ePAF is received. The person would be considered on summer between-term leave without pay from end of the funding period to the separation date.

i. New Hire Paperwork

Each newly appointed student employee is required to complete new hire paperwork including, but not limited to, Form I-9, Form W-4, Employee Biographical Data form, Employee Acknowledgement form, Proof of Selective Service Registration (if applicable), Teacher Retirement System Eligibility and Enrollment form (if applicable), and the Benefits Enrollment Information form (if applicable). Additional new hire paperwork may be required by the employing department. **A delay in completing the new hire paperwork will cause the student's first paycheck to be delayed.**

3. Processing Appointments and Changes

A student employee appointment, change in salary, percent of time or payroll account, separation, or other personnel action must be made on an ePAF.

By the appointment of a Student Assistant or a High School Student Worker, the hiring manager certifies that the individual is fully qualified to perform the duties to be assigned and funds for the position have been approved. The hiring manager further certifies that, to the best of his/her knowledge, the appointment, if approved, will be accepted by the individual at the salary and percent of time indicated on the ePAF.

The signature of the Graduate School Dean certifies that the individual is a graduate student in good standing with the university, the salary level indicated complies with the salary ranges set for graduate students in the university, or there is adequate justification to approve an exception to the normal salary range for the student employee and approval of the rank and salary to be offered.

4. Assignment of Home Departments

Student employees are assigned to a home department. The home department is the department first submitting an ePAF appointing the individual. The home department is responsible for the coordination of that student's employment if the student is employed by another department. The home department may be changed by submitting an ePAF through appropriate administrative channels to Human Resources.

5. Student Appointments

Graduate Part-Time Instructors, Research Assistants, and Teaching Assistants are employed on a monthly basis and, because of the nature of their job duties, they are exempt.

An individual may not be appointed concurrently to a position not requiring student status and to a position requiring student status as a condition of employment.

All hourly appointments are nonexempt, and accurate records of hours worked must be maintained. **An employee should not be employed in both an exempt and nonexempt capacity during the same workweek.** However, if approved as an exception, an employee employed in any capacity that would normally be partially exempt and partially nonexempt loses the exemption during any workweek so employed, and all hours worked in all capacities must be recorded and combined to determine overtime entitlements.

For additional information regarding student appointments, refer to OP 70.14, Compensation Policy, and OP 64.11, Insurance Coverage of Graduate Student Employees.

6. Student Employment FICA Exemption

Under § 3121(b) (10) of the Internal Revenue Code, a "student who is enrolled and regularly attending classes" at a college or university is exempt from paying the imposed tax on employers and employees referred to as the Federal Insurance Contribution Act (FICA).

Therefore, the university will make student FICA exemption determinations based on Revenue Procedure 2005-11 safe harbor guidelines. All students enrolled by Texas Tech and employed by Texas Tech

University System, Texas Tech University, or Texas Tech Health Sciences Center, and who meet the safe harbor guidelines, will be treated as exempt from the FICA taxes, while those student employees who do not will be subject to FICA taxes on their wages.

However, the IRS recognizes it may be possible for a Texas Tech employee not to meet the Revenue Procedure 2005-11 safe harbor tests and still qualify for the student FICA exemption; therefore, the university will also be looking at the facts and circumstances of the student's employment to verify whether the student will qualify for FICA exemptions, as well as using the safe harbor guidelines.

Eligibility Criteria

a. Texas Tech Student FICA Exemption

To be eligible for the exemption, the student must be:

- (1) Enrolled in classes creditable toward a degree, certificate, or other recognized educational credential at the university in which they are employed;
- (2) Enrolled and attending classes on at least a half-time basis, either in an undergraduate or graduate program during the time in which the work is being performed;
- (3) Employed at Texas Tech University System, Texas Tech University, or Texas Tech University Health Sciences Center in a job category requiring student status as a condition of employment; and
- (4) The primary role at the institution that employs him/her must be as a student and his/her secondary role is as an employee.

b. Exclusions from Eligibility for Exemption

A person is not eligible for the exemption if he/she is:

- (1) A full-time employee;
- (2) A professional employee, defined as an employee whose work (1) consists of advanced or specialized knowledge; (2) requires consistent discretion and judgment; and (3) is intellectual or varied rather than routine, manual, or physical. Another indication of a professional employee is if a license (other than a normal driver's license) is required.
- (3) An employee who is eligible to receive one or more of the following employee benefits:
 - Vacation, paid holiday, and paid sick leave benefits;
 - Participation in an Internal Revenue Code § 401(a), § 403(b), or § 457(a) retirement plan;
 - Reduced tuition (other than qualified tuition reductions for Teaching Assistants and Research Assistants under Internal Revenue Code § 117(d)(5); or
 - Benefits under Internal Revenue Code § 79 (life insurance), § 127 (qualified educational assistant), § 129 (dependent care assistance program), or § 137 (adoption assistance).

c. Other Employee Groups Not Eligible

Faculty

Staff

Postdoctoral students

Postdoctoral fellows

Medical residents

Medical interns

d. Enrollment Requirements

Students must first be enrolled under their social security number in order for the payroll system to determine enrollment levels and eligibility. Students who fail to provide the Registrar's Office with a correct social security number will not be exempted from FICA. Any corrections will affect future payrolls and will not result in retroactive adjustments to withholding.

Eligibility for the FICA exemption is also based upon the enrollment requirements for the appropriate semester(s) corresponding to the pay period of the payroll being processed and the enrollment of the student in the appropriate semester(s) at the time the payroll is processed. Changes in enrollment during the semester will affect eligibility for payrolls processed after the enrollment change and will not retroactively affect eligibility.

Eligibility for pay periods that occur between semesters of less than five weeks will be determined based upon enrollment during the preceding semester. Eligibility for pay periods encompassing time in a preceding semester and a between-semester period will be determined based upon the enrollment during the preceding semester. Eligibility for pay periods encompassing time between semesters of less than five weeks and the new semester will be based upon enrollment in either the preceding or the new semester. Eligibility for pay periods encompassing time in two semesters will be based upon meeting the enrollment criteria in either semester. Eligibility for pay periods completely within a semester will be based upon the enrollment level for that semester.

Enrollment Levels to Meet One-Half Time Criteria

COURSE ENROLLMENT	FALL	SPRING	SSI	SSII
TTU Undergraduate	6	6	3	3
TTU Graduate	5	5	2	2
TTU Graduate (99 Hour Exception)	1	1	1	1
TTU School of Law	6	6	1	1
TTU Joint Law and Graduate	5	5	1	1
HSC School of Allied Health-Undergraduate	6	6	6	N/A
HSC School of Allied Health-Graduate	5	5	5	N/A
HSC School of Nursing-Undergraduate	6	6	3	3
HSC School of Nursing-Graduate	5	5	2	2
HSC School of Pharmacy	6	6	6	N/A
HSC Graduate Biomedical	5	5	2	2
HSC School of Medicine	Always	Full	Time	Time

Note: The semester begin date is the last day to enroll without penalty.

7. Authoritative References

Internal Revenue Code § 3121(b) (10)
Revenue Procedure 2005-11

8. Right to Change Policy

Texas Tech reserves the right to interpret, change, modify, amend, or rescind this policy, in whole or in part, at any time without the consent of employees.

TEXAS TECH UNIVERSITY GENERAL INFORMATION

Computer Access

The Advanced Technology Learning Center (ATLC) is located in the west basement of the Texas Tech Library. The ATLC has a variety of Macintosh and computers available for use by any TTU student with a valid eRaider. ATLC phone number: (806) 742-1650; web address: www.depts.ttu.edu/itts/labs

Computer Assistance

IT Help Central Help Desk (806) 742-4357, in the ATLC, provides support personnel to assist users with computing problems. Staff consultants teach short courses and help users with in-depth problems.

TTU Library

The Texas Tech University Library offers tours, classes, and personal consultations that will orient graduate students with the extensive services and resources available for graduate course work and research. Our personal librarian is Jessica (Jessie) Simpson; you can reach her at: Jessica.L.Simpson@ttu.edu or (806) 834-7878.

Student Networking within Academic Departments

The network of graduate students in academic departments is a valuable resource for new students. You should explore departmental opportunities for formal and informal gatherings that will enhance your graduate education experience. Center for Campus Life phone number: (806) 742-3621

The Student Recreation Center

Texas Tech University has one of the largest student recreation and aquatic centers in the nation. It offers students, faculty, staff, and guests an opportunity to participate in a wide variety of indoor and outdoor recreation activities. Students currently enrolled in Fall and/or Spring semesters and who have paid the Group IV student service fee may utilize the recreational facilities by presenting a valid Tech I.D. Summer eligibility requires payment of Group II service fees. **Memberships and one-time-use fees can be purchased for spouses and children or graduate students who do not pay Group IV fees.**

Recreation Center Programs

The Fitness & Wellness Center offers fitness testing and health screenings for the following: cholesterol and/or glucose screening, health risk assessments, blood pressure screening, exercise testing and prescription, exercise logging, and exercise and nutrition seminars.

The Outdoor Pursuits Center provides outdoor experiences through equipment rental, clinics, and trips. They also have a resource center with books, maps, and phone numbers to plan a trip. The Sports Club Program offers competitive intercollegiate experiences that are not provided in other campus sports programs. Some clubs include: lacrosse, polo, archery, gymnastics, ballroom dancing, rugby, and wrestling. Texas Tech offers a year-round intramural program with a variety of sports for men, women and co-ed teams. All tournaments are open to students, faculty, staff, and spouses with current Recreation Center passes. Recreation Center phone number: (806) 742-3351

Student Union Building

The Student Union Building (SUB) is a focal point of student life providing food services, a convenience store, banking services, meeting rooms, a theater, a recital hall and many other services.

Programs and Events

The Student Union Activities Office plans, promotes, and presents music, dance, comedy, theater, speakers, and other events. Student Union Programs and Cultural Events present the “NightLife Series.” It provides students with an opportunity to be involved in the planning and promotion of these events as well as a food festival, debates, exhibits, and focus weeks.

RISE

Risk Intervention & Safety Education (RISE) is a Texas Tech department focusing on Prevention & Wellness efforts for the Red Raider Community. The RISE Office provides a variety of services, educational workshops, and fun FREE events! Some of the workshops that they can present to departments include: Alcohol and Other Drugs, Raiders Respond (Bystander Intervention), One Love: Healthy Relationships, and Stress Management.

The Crisis HelpLine is a service available to students 24/7/365. Simply call (806) 742-5555, and you will be connected with a licensed counselor who can immediately assist you. Have concerns about your safety and well-being? In a dangerous relationship? Experienced sexual assault? Thinking about suicide? Call the Crisis HelpLine for support, information, and referral.

ENTX ACADEMIC PERFORMANCE STANDARDS

In addition to fulfilling the requirements for Texas Tech Graduate School, the Department of Environmental Toxicology graduate students must fulfill the following requirements.

1. General

- a. Students must have a cumulative grade point average of at least 3.0 for all **non-research** classes.
- b. If a student receives a C in any Department of Environmental Toxicology (ENTX) core course then it will not be applied toward their requirements for graduation, and they must retake the course and receive a grade of B or above.
- c. If a student receives a D in any course, they will not get credit for it in fulfilling their degree plan.
- d. If a student is to graduate at the end of a semester and they are taking non-research courses, they must maintain a non-research GPA of 3.0 or greater for that semester.
- e. If a student has recently fulfilled all their non-research courses but is placed on academic probation or has not fulfilled all of their requirements for being taken off academic probation, they may be required to retake courses or take additional courses in order to fulfill the requirements for being taken off academic probation.
- f. No student will be allowed to graduate if they have been placed on academic probation in their last semester, or if they have not fulfilled the requirements to be taken off academic probation by their proposed time of graduation.

2. Information Regarding Stipends

If you are a graduate student receiving a stipend from ENTX, the following criteria must be met or your funding will be immediately discontinued:

- a. Identify and formally designate a faculty research advisor within thirty days of beginning at ENTX.
- b. Work with your advisor to develop a tentative plan of study and conceptual research project.
- c. Perform satisfactorily and meet all requirements in advisor's laboratory.
- d. Remain on thesis/dissertation track as designated by departmental policy.
- e. Maintain at least a 3.0 GPA. If performing below a 3.0 for any semester, you are required to raise your GPA back to a 3.0 within one semester.
- f. Maintain a 3.0 GPA or higher in all core courses. If a C or lower is received in a core course, departmental funding is immediately revoked.

3. Academic Probation

- a. Students will be placed on academic probation if they:
 - i. Fail to maintain a cumulative 3.0 GPA in all non-research classes
 - ii. Receive two or more C's in any course in the current semester
 - iii. Receive one or more D's in any course in the current semester
- b. Academic probation will last for two academic (non-summer) semesters.
- c. If a student is placed on academic probation, they must:
 - i. Raise their non-research, cumulative GPA to 3.0 or higher within two academic (non-summer) semesters
 - ii. Obtain a non-research GPA of 3.0 or higher in the academic semester following placement on academic probation
 - iii. Not receive a grade of C or below in any ENTX course while on academic probation
 - iv. Not receive a D or more than one C in any course while on academic probation
- d. If a student fulfills these requirements, they may be taken off academic probation no sooner than 2 academic semesters following placement on probation.
- e. At the discretion of the Graduate Admissions Committee, a student may be accepted into the program on conditional probation. This may be either academic or deficiency probation.
 - i. *Academic Conditional Probation:*
 - (1) If the student has a previous record of questionable academic performance, the Graduate Admissions Committee may place that student on academic probation from the moment they enter the ENTX program. The student and advisor must receive written notification of this upon the entrance of the student into the ENTX program.
 - ii. *Deficiency Conditional Probation:*
 - (1) If a student is admitted to the ENTX program without all of the ENTX prerequisites, they must fulfill their deficiencies within one year of admittance to the program. These courses must be taken for credit, and the grades in these courses will be subject to the same academic standards as other courses. These courses do not necessarily have to be taken at Texas Tech University. If the prerequisites are not taken at TTU, an official transcript must be provided to the Graduate Admissions Committee as proof of grades and credit.
 - (2) If a student fails to complete the prerequisites of the department within one year, they will

be placed on academic probation. They may face termination from the ENTX graduate program if the student fails to complete the prerequisites by the end of the academic probation, or if they fail to meet the requirements of academic probation.

- (3) A student may begin taking ENTX courses before all deficiencies have been fulfilled. However, during this time they must make a grade of B or higher in any ENTX courses taken, or they will be placed on academic probation.

4. Students may be terminated from the Department of Environmental Toxicology if:

- a. They fail to meet the requirements of academic probation within two academic semesters
- b. They are placed on academic probation more than once
- c. They receive a D in any ENTX course
- d. They receive a F or more than one D in any course
- e. They fail to get a B or better after retaking any core course

5. Extenuating circumstances

- a. If there are reasonable extenuating circumstances, the student may appeal the Graduate Admissions Committee's decision to assign academic probation or termination from the Department of Environmental Toxicology. This must be done with prior, written approval from the student's advisor. In some cases, the student's advisor may petition the committee.
- b. If for personal or professional reasons the student foresees a delay in completing the requirements for being taken off of academic probation or fulfilling deficiency conditional probation, they may petition the Graduate Admissions Committee in advance and with prior approval of their advisor. Any extension for completing requirements for being taken off academic or deficiency conditional probation require prior written approval of the Graduate Admissions Committee with a signature of the student's advisor.

6. Plagiarism in the Department of Environmental Toxicology

- a. Instances of 0% tolerance for plagiarism:
 - i. There will be a 0% tolerance if an entire homework assignment is plagiarized, i.e., if a class paper or problem set is purchased, obtained, or copied word-for-word from any source, or is downloaded from any website. In this case, the student may be terminated from the Environmental Toxicology Graduate Program.
 - ii. There will be 0% tolerance if all or part of a master's thesis or doctoral dissertation is plagiarized or quoted word-for-word without proper citation. In this case, the student will be

terminated from the Environmental Toxicology Graduate Program and will not be awarded a degree. This incident will also be reported to the Texas Tech University Graduate School and the Texas Tech University Office of Student Conduct.

b. Plagiarism in homework assignments or class papers:

i. First Offense:

- (1) If $\leq 5\%$ of the total word count of the assignment is plagiarized, the grade for that assignment will be penalized 20% or two letter grades.
- (2) If $> 5\%$ of the total word count is plagiarized, the student will receive a failing grade for the assignment.
- (3) If the assignment is a problem set, and if the answer to any problem is cut and pasted from a website or copied word-for-word from another source, the student will receive a failing grade for the assignment regardless of the word count.
- (4) Written warning will be distributed to the student, their advisor, and their departmental file.

ii. Second Offense:

- (1) If $\leq 5\%$ of the total word count of the assignment is plagiarized, the student will be given a failing grade for the assignment.
- (2) If $> 5\%$ of the total word count is plagiarized, the student will receive a failing grade for the course and will be placed on academic probation.
- (3) Written warning will be distributed to the student, their advisor, and their departmental file.

iii. Third Offense:

- (1) Regardless of the amount of materials plagiarized, the student may be terminated from the Environmental Toxicology program.

c. If a student plagiarizes any material while on academic probation, this will be interpreted as a violation of academic probation, and they may be terminated from the Environmental Toxicology program.

POLICY FOR ENTX FACULTY REGARDING MANAGEMENT AND ACCOUNTABILITY FOR GRADUATE STUDENT STIPENDS

To enhance our ability as a faculty to most effectively utilize departmental funds, and to formalize policies regarding graduate student responsibilities and accountability, ENTX Faculty will:

1. Conduct an Academic Performance Review of first-year graduate students after nine months as their faculty advisor (regardless of stipend funding source), with a summary statement of advisor's assessment of adequate or inadequate progress submitted via email to the Graduate Program Coordinator.
2. Conduct a Research Performance Review of graduate students (regardless of stipend funding source) annually. The existing attached form entitled "**Application for Outstanding Graduate Student Award**" will be utilized for the annual Research Performance Review. The Graduate Program Coordinator will maintain students' completed and signed performance reviews in their files.
3. Encourage and facilitate graduate students for which you serve as major advisor to actively and aggressively pursue awards, grants, scholarships, and other forms of funding support. This ultimately will reflect such effort in the Research Performance Review report.
4. The Graduate Program Coordinator will inform graduate students of the following policies: Graduate students that disagree with their Academic Performance Review and/or Research Performance Review may file a written rebuttal within 14 days to the Graduate Program Coordinator for submission to the Graduate Admissions Committee for consideration and resolution.

Additionally, the following process and criteria for allocation of stipends was established by faculty agreement:

1. Departmental Stipend Allocation Process

- a. **Departmental Stipends** will be allocated for the Fall of each academic year, and will be awarded for the period of one year.
 - i. Exceptions may occasionally be made for openings available for the Spring semester.
 - ii. Stipends may be occasionally awarded for a period of more than one year at the discretion of the Graduate Admissions Committee and Department Chair. There are two Departmental Stipend application types - new and renewal. New stipend applications are for incoming students, as well as current students who are not/have not been previously supported through a Departmental Stipend. Renewal stipend applications are for students already supported on a stipend. These must be accompanied by a letter of recommendation from their major advisor and include all Academic Performance and Research Performance Reviews.

2. Important Dates Regarding Stipends

- a. **First week of January:** Application deadline for new departmental stipends to begin in Fall of the next academic year.

- b. **January 15:** Application deadline for renewal of Departmental Stipends to begin in Fall of the next academic year and requests from Faculty for Departmental Stipend support submitted to Graduate Admissions Committee.
- c. **Second week of February:** Graduate Admissions Committee finalizes recommendations on departmental stipend allocations.
- d. **Third week of February:** Graduate Admissions Committee presents stipend recommendations to full professor faculty.
- e. **Second week of October:** Application deadline for new stipends to begin in the Spring of the next year.

3. Departmental Stipend Allocation Decision Process:

- a. All new stipend applicants are ranked by the Graduate Admissions Committee based on information in the students' graduate folders. For new applicants, this folder consists mainly of application materials. Ranking is based on a holistic evaluation of GPA, GRE scores, transcripts, letters of recommendation, and any other factors deemed relevant by the Committee. Faculty may write additional letters of support for any applicant.
- b. The Graduate Admissions Committee will allocate available Departmental Stipends based on:
 - i. Ranking of new stipend applications.
 - ii. Faculty requests, with preference given to renewal applications for students making exemplary progress toward completion of a graduate degree. In addition, any positions that have been allocated by the Department Chair as part of faculty start-up will be given preference.
 - iii. The Committee will allocate stipend positions designated as Teaching Assistant's consistent with upper administration allocation guidance to support departmental courses.
 - iv. The Committee will inform faculty of its rankings and recommendations for stipend allocations by the 3rd week of February for comment and concurrence. The Committee may call a special faculty meeting for this purpose. A simple majority vote prevails.

