To New Students in Environmental Toxicology:

Welcome to the Department of Environmental Toxicology and The Institute of Environmental and Human Health (TIEHH) at Texas Tech. 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.

In entering our program, you will not only receive our best effort in graduate education and research opportunities to enhance your growth, but in addition, it will start a many-year interaction both here and into the future when you graduate and begin your career. We have quite a network of students all over the United States and internationally who are engaged in professional development and employment related to Environmental Toxicology. As you review this handbook and the suggestions that it makes related to starting your graduate education at Texas Tech, you enter 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.

Best wishes,

Todd Anderson, Ph.D.
Chair, Department of Environmental Toxicology
Dr. Todd Anderson, Chair and Professor  
Teaching and research focuses on the movement of chemical contaminants in the environment in order to evaluate and better characterize potential exposure of organisms to contaminants, as well as support tests on chemical effects.  
806.834.1587

Dr. Weimin Gao, Associate Professor  
Research interests focus on etiological study and early detection of human chronic diseases including lung, liver and esophageal cancers by using molecular epidemiology, genomics, proteomics and metabolomics.  
806.834.6518

Dr. Jaclyn Cañas-Carrell, Associate Professor  
Interest focuses on analytical toxicology and environmental fate and in using analytical methods to characterize exposure, as well as the fate and transport of chemicals in the environment.  
806.834.6217

Dr. Céline Godard-Coddling, Associate Professor  
Research interests focus on genomic and cellular toxicology, mechanistic toxicology, endangered wildlife ecotoxicology and conservation, and biomarkers. Species of special interest are marine mammals and turtles.  
806.834.2737
Dr. Ronald Kendall, Professor
Research interests are in Terrestrial ecotoxicology and Ecological Risk Assessment. Current research opportunities exist in response of wildlife to agricultural pesticides and terrestrial ecotoxicological studies at a Superfund site.

806.834.5543

Dr. David Klein, Associate Professor
Research interests include environmental chemistry and chemical analysis of anthropogenic substances in water and soil. Chemicals of interest are Persistent Organic Pollutants (POPs), Endocrine Disrupter Compounds, and metals.

806.834.6044

Dr. Jonathan Maul, Associate Professor
Interests include conducting ecotoxicology research on contaminants ranging from pesticides to pharmaceuticals on a variety of receptor species, including both aquatic vertebrate and invertebrate species. Also interested in studying effects on communities and ecosystems and how contaminant exposure is driven by the ecology of receptor organisms.

806.834.3899

Dr. Greg Mayer, Associate Professor
Research revolves around the effects of environmental toxicants on human and environmental health, including effects of environmental estrogen agonists on DNA repair processes, toxicity and cellular interactions of quantum-confined nanocrystals and cyanobacterial endotoxins.

806.834.6154

Dr. Chad Paton, Assistant Professor
Research in my lab is focused on understanding the role of environmental factors on the regulation of metabolic activity. We use biochemical and molecular biology methods to study the transcriptional regulation of metabolism, primarily in cell and mouse models.

806.834.8119
**Dr. Steve Presley**, Professor and Research Coordinator of the Admiral Zumwalt National Program for Countermeasures to Biological and Chemical Threats
Research interests are in the detection, prevention and elimination of biological threat agents, including zoonoses and emerging diseases.

806.834.8260

**Dr. Seshadri “Ram” Ramkumar**, Professor
Research and teaching interests focus on chemical warfare countermeasures, personal protective clothing/substrates, IT and chemical defense, and chemical protection and high performance materials.

806.834.4336

**Dr. Kamaleshwar Singh**, Assistant Professor
Research focus is on Environmental Carcinogenesis, Toxicogenomics, Molecular Toxicology, and Human Cancer Genomics. “Gene-environment interactions in human cancer development” is the main area of his research.

806.834.8407

**Dr. Ernest E. Smith**, Associate Professor
Teaching and research interests focusing on developmental and reproductive toxicology, as well as molecular biological techniques in order to evaluate mechanisms of natural and environmental contaminants in amphibian and rodent models.

806.834.4095

**Dr. Phil Smith**, Associate Professor
Research interests focus on ecological and physiological characteristics of organisms, populations, and environments that contribute to contaminant exposure and adverse effects.

806.834.6180
TIEHH/ENVIRONMENTAL TOXICOLOGY ADMINISTRATIVE STAFF

Front Desk
Allyson Smith  Main Telephone Line  806.742.4567

Director's Office
Ryan Bounds  Assistant Director for Administration  806.834.1876

Accounting
Tami James  Manager, Financial Services  806.834.3387
Stephanie White  HR/Payroll/Misc. Accounts  806.834.1099
Karinne Truelock  Grant/Incentive Accounts  806.834.8029

Building Maintenance
Joby Hinton  Building/Laboratory Maintenance  806.834.7239

Animal Care
Mike Wages  806.834.8994

Graduate Program
Dr. Jaclyn Cañas-Carrell  Graduate Program Officer  806.834.6217
Allyson Smith  Graduate Program Coordinator  806.834.3643

Quality Assurance/Biosafety:
Stephanie Presley  QA Supervisor & Safety Officer  806.834.8828

Research Grants (Pre-Award):
Stephanie White  Grant Applications and Awards  806.834.1099

Network & Computing
Lori Gibler  Network/Computing/Telephone  806.834.3453
Brad Thomas  PC/Network Support  806.834.6168

Emergency Contact Numbers

<table>
<thead>
<tr>
<th>Contact</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joby Hinton</td>
<td>806.778.4092 (cell)</td>
</tr>
<tr>
<td>Ryan Bounds</td>
<td>806.470.7116 (cell)</td>
</tr>
<tr>
<td>Lori Gibler</td>
<td>806.773.9044 (cell)</td>
</tr>
<tr>
<td>Stephanie Presley</td>
<td>806.535.1782 (cell)</td>
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VISION STATEMENT

"We will be a leader in research and education integrating environmental and human health sciences. Our Institute will contribute innovative solutions to environmental problems by embracing disciplinary diversity, creating partnerships, and committing to excellence."

TIEHH and Graduate Program History and Overview

Texas Tech University and its sister institution, Texas Tech University Health Sciences Center, are located on a 1,850-acre campus in Lubbock, a city of 200,000 in the panhandle region of Texas. As the primary research institution in the western two-thirds of the state, Texas Tech University is home to seven colleges, a School of Law, and a Graduate School. The Health Sciences Center contains Schools of Medicine, Nursing, and Allied Health. Over 27,000 students are enrolled in the 123 undergraduate, 103 masters, and 60 doctoral programs offered at Texas Tech.

In 1997, Texas Tech University and the Texas Tech University Health Sciences Center established as a joint venture, The Institute of Environmental and Human Health (TIEHH), to bridge their ability to assess the impacts of toxic chemicals on the environment and on people. This initiative employs a medical school and health sciences center interfaced with a comprehensive university, including the Texas Tech University School of Law, and represents an opportunity to address environmental and human health issues from a multi-disciplinary perspective. Members of the faculty of The Institute of Environmental and Human Health already sit on national boards including the U.S. Environmental Protection Agency, as well as panels of other scientific organizations, both national and international. This effort results in the development and implementation of good science and technology in the interface of good environmental policy and economic development opportunities.

Environmental Toxicology Facilities

TIEHH researchers assess human exposure to chemicals in the environment and associated effects. TIEHH builds upon analytical methods to enhance the quantitation of chemicals in association with environmental exposures. TIEHH also builds upon population-based epidemiological studies, including both humans and wildlife, to begin to better define the "Canary in the Coal Mine" concept from a more quantitative and rigorous scientific basis. Researchers are developing innovative approaches to assess human health consequences in the environment and how wildlife may act as "sentinels" to human health effects. Indeed, even currently, the National Institute of Health is implementing new epidemiological studies to evaluate chemical exposure on Texas migrant and agricultural farm workers.

In 2000, the Texas Commission on Higher Education approved the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) graduate programs in Environmental Toxicology. The Department of Environmental Toxicology was officially approved later that same year, providing a home department for the Environmental Toxicology faculty and graduate program. In recognition of the need for greater incorporation of environmental toxicology in the fields of law and business, joint degree programs have been developed with the TTU School of Law (joint J.D./M.S. degree) and TTU’s Jerry S. Rawls College of Business (Joint M.B.A./M.S. degree).
Location
TIEHH is located at the former Reese Air Force Base now known as Reese Technology Center. TIEHH occupies 150,000 square feet of space in 6 buildings. TIEHH is currently the research anchor tenant at Reese Center. TIEHH aims to encourage high technology oriented companies to locate their operations to the master planned technology and research park. There is a uniqueness at Reese Technology center that is created by partnerships between public institutions of higher education such as Texas Tech University and South Plains College with private industry. This is what makes Reese attractive to high-tech companies looking for an opportunity to relocate or expand. Additional information on Reese Technology Center can be located at www.reesecenter.com.

Mailing Address

- Mailing Address (US Postal Service): Box 41163 Lubbock, TX 79409-1163
- Texas Tech campus mail address: Mail Stop 1163
- TIEHH’s Physical Address: 1207 Gilbert Drive, Building 555 Lubbock, TX 79416
  (For use with FedEx and other express-mail deliveries only)
FACILITIES AT REESE TECHNOLOGY CENTER

TIEHH Complex - Buildings
555 – Administration / Labs
552 – GIS Lab/Computer Lab/Student Offices
551 – Tool Shop
790 – Sensor Development/Advanced Materials Lab
455 – Nonwovens and Advanced Materials Lab
450 – Aviary Facility

TIEHH Building 555 Laboratories
Ecotoxicology
Biochemical Toxicology
Chemo Prevention and Biotoxin
Developmental/Reproductive Toxicology
Epidemiology
Infectious Disease
Inorganic Analysis
Environmental Chemistry
Analytical Chemistry
Aquatic Toxicology
Computer Laboratory
Image Core Facility
TIEHH/Environmental Toxicology Resources, Services, and Responsibilities

**Break Room**
Room 124 is designated as a break room for all personnel and visitors. It contains drink/snack machines, a refrigerator, microwaves, cabinets, lunch tables and chairs, and a sink. Dishes (dirty or clean) should not be left in the sink. We expect everyone to wash his/her own dishes and be courteous in the use of all areas and of the equipment in the kitchen area, including the refrigerator and microwave. As this is a public area, everyone is responsible for cleaning up after his/her use of the facilities.

**Campus Mail**
Mail to/from the Texas Tech campus is delivered and picked up daily by Mail Tech at the front desk at 10:00 a.m. and 2:00 p.m. The mail delivered to TIEHH is distributed to the appropriate mailboxes in the copy room. Mail picked up by campus mail is delivered to campus to be sorted and mailed through U.S. Postal System. Any mail for the U.S.P.S. must have a stamp or an account number in the upper left hand corner of the front of the envelope. Campus mail must be labeled with the person’s name, department, and Mail Stop number (see the TTU directory for this information). Note that campus mail is for official university business and should not be used for commercial, personal, or political purposes. A box for stamped mail, campus mail, and overnight express mail is located in the front on the credenza behind the reception desk. Any mail to be delivered by overnight mail services (FedEx, UPS, Airborne) should be coordinated through the receptionist before 2:00 p.m. daily to ensure enough time for pick up by overnight mail services. Sender must include an approved account number prior to sending or a fee will be charged by Mail Tech to cover costs of researching source of funds to cover the expense.

**Campus Run**
Campus run is available when time-critical paperwork needs to be delivered to or picked up from campus. The campus run is coordinated by Stephanie White and is generally scheduled every afternoon around 2:00 p.m. Please contact Stephanie if you have a campus run request.

**Computer Resources**
Computers designated for student use are located in the student library. Laboratory computers, or those associated with GIS/modeling and HPCC, may only be used under permission of the responsible faculty member. Before using any TIEHH computers, consult computer resources support personnel (Lori Gibler) for log-on instructions and initial passwords.

**Copy Services**
Photocopiers are located in Room102. Students will be assigned a copier code by Stephanie White or Allyson Smith. Each student is allocated 500 copies per semester. These copy privileges are for TIEHH-associated business only. Copying books, theses, dissertations, etc. is not permitted. TTU offers photocopy services for large print jobs through the Printing Center at the TTU Health Sciences Center (743-2016).
**Desk Space**
Student office and desk space is allocated through the Student Association at TIEHH. Space allocation for graduate students is determined by a hierarchical system governed by the TIEHH Graduate Student Association. This system weights assignment preference based upon tenure within the program first, then degree track if tenure is equal. New students should consult the student president for office assignments. Students are not allowed to move to a different cubicle without prior approval. And, students cannot “will” their desk space to another student. Generally, desk assignment changes will occur three times a year, staggered after graduation dates (e.g. January, June, and August).

**Email Services**
TTU Email can be accessed through the TIEHH network. Work through the Graduate Program Coordinator (Allyson Smith) to get your TTU email established. If a computer is available, one will be assigned for your use. If not, computers are available in the student library. Computer and TIEHH network support is available through the computer support personnel (Lori Gibler or Brad Thomas). You can also access your TTU email via any computer with an internet connection.

**Emergency Safety Procedures**
A safety plan is in effect for emergency conditions.

**Equipment Use**
TIEHH facilities house a large amount of expensive, specialized scientific equipment. Each piece of equipment/instrumentation has a specified operating procedure, and no student should operate any equipment until he/she is trained and signed-off on the related standard operating procedure (SOP). Consult your advisor and/or responsible faculty member before using any equipment. In addition, no equipment is to be moved to a different location without coordination and appropriate approval. Any equipment request to relocate off TIEHH premises must go through Ryan Bounds in the Director’s Office for appropriate paperwork coordination. Texas Tech inventories all equipment, including computers, purchased and housed by TIEHH.

**Graduate Program Coordinator**
Dr. Jaclyn Cañas-Carrell and Allyson Smith are here to work with students to ensure that their interactions with the University are smooth through all aspects of their graduate experience. They have experience working with students from their letter of application through their final paperwork when they finish their degrees. Please contact either of them should you have any questions.

**Mailboxes**
Mailboxes are located in the copy room. Mailboxes are alphabetical and organized according to position (faculty, staff, graduate students, student assistants).

**Quality Assurance / Quality Control (QA/QC)**
TIEHH research projects are conducted in accordance with Quality Assurance/Quality Control (QA/QC) guidelines. Each new student will receive QA/QC training prior to working in the labs and on any QA/QC controlled project. TIEHH has a Quality Assurance Unit to train personnel and audit research projects. Please see Stephanie Presley to pick up your QA new employee packet.
**Security Badges**

*Security is of crucial importance at TIEHH.* Upon entering the Environmental Toxicology Program, you will be issued an identification/security badge. Students must have their pictures taken for their ID badges through the Texas Tech Police Department located at the Texas Tech Police Building. **Access to the labs will not be granted until all safety training is complete.** Access to specific laboratories must be approved through your major advisor and the appropriate faculty managing a lab in which you would be working. **ID badges must be worn at all times while on the TIEHH campus.** Loss of ID badges could jeopardize TIEHH security and may result in a fine. Contact Ryan Bounds immediately for lost badges or for problems with badges. (If you have badge problems, please be sure to note whether the badge “beeps” when trying to use a badge at a reader. This information is important when checking badge problems). As there is a cost per badge, TIEHH only covers one lost badge per person. Should you lose your badge after your allocation, you will be responsible to replace the badge at a cost of $5 per badge.

There will be labs to which you will not have access. Activity logs are recorded for TIEHH facilities and reported by the TTU Police Department. If those logs show that you are repeatedly trying to gain access to an area that you’re not supposed to be in, you will be questioned as to the reason why. This could result in the loss of badge privileges. Do not allow anyone, especially someone you do not know, to “piggy-back” and follow you into a lab or other secured area. Do not assume that they have permission to be there. Report any such instances to Ryan Bounds.

**Restrooms**

Restrooms can be found in the main administrative portion of the building (near copy room), and in the center of the main laboratory hallway. Shower/locker facilities are available in the east restroom area.

**Student Library (TIEHH)**

A number of relevant environmental resources, journals, and documents are located in the student library (Room 107). These materials are for general student use and should not be removed from the library except for photocopying. The student library contains a number of student use computers, printers, and tables for studying. Please respect the needs of others while in the library.

**Telephones/Voicemail**

Telephones designated for student use are located in the multi-student cubicles. Additional phones may be found in laboratories. Calls should be limited to work-related issues, especially those requiring long-distance service. All long-distance calls are logged and you will be asked to explain the need for each call. Long-distance personal calls are not permitted. Should you need to make a long-distance call, please see your advisor. Should you need to make a personal long-distance call, you will be required to pay for it. Lori Gibler, Assistant Director for IT, will coordinate setting up a student’s voicemail box if requested.

**TIEHH Safety**

Appropriate training will be provided through the QA/Biosafety Unit prior to working in the labs.

**Transportation**

At the time of this publication, bus service to Reese Center is not provided. Students are encouraged to carpool/share until students can find suitable transportation to and from Reese Center.
**Vehicle Check Out**
Anyone wishing to drive a TIEHH vehicle must have prior authorization through Texas Tech University. This process can take up to two weeks and you will be notified by Stephanie White when approved. After approval is obtained, you must reserve and check out the vehicle through any administrative staff member. Please verify with the Director’s Office the locations on campus that you can park a TIEHH vehicle. If the vehicle is towed or receives a ticket as a result of you parking in the wrong location, you will be responsible for paying the fine. The TIEHH vehicles are to be used for work related business only. TIEHH vehicle are not to be used for attending a class on the TTU campus or for other personal use. There is also an electronic permit system that can allow you to park your personal vehicle on campus for work-related business. Please see Ryan Bounds for more details on this service.

If you are using a TIEHH vehicle for fieldwork and need to use one with 4-wheel drive, please be sure to ask for assistance from Ryan Bounds or Joby Hinton in the proper operation of these vehicles for those conditions. Please keep these vehicles clean. Do not leave your trash in them and be sure to clean up any spills. Failure to do this could result in loss of vehicle privileges and you will be billed for the cleaning expenses.

There are specific fuel credit cards for each vehicle. Any member of the administrative staff can provide you with one and instruct you on how to use them. If the vehicle you are using has less than ¼ tank of fuel, please fill up the tank before you return. You will need to record the fueling information in the vehicle use log. **The vehicle use log also has to be completed after each use of the vehicle.** When taking a vehicle on an extended trip out of town for work related tasks, please check with Ryan or Joby in advance so that we can make sure the vehicle is in proper operating condition for the trip.

**Visitors**
If you are expecting a guest, please inform the front desk prior to arrival. The guest must provide photo ID for identification verification and sign in the visitor log. As a visitor, he/she will be provided a “visitor” badge to wear at all times while in TIEHH facilities. Upon leaving, the guest should log out and return the badge. If after hours, the badge should be put in the lock box to the left of the receptionist’s desk. Any guests should be escorted at all times during a visit at TIEHH facilities.

**Work Schedule/Time Commitment**
Please discuss with whomever you work for what your work schedule will be. This is crucial, especially during the summer and holidays. **Do not assume that if classes are not in session, you are not required to work.**
**Important Purchasing Guidelines from Karinne**

**Purchase Orders:** Most things will be ordered with a purchase order. If you have a quote, please send it as an attachment if possible or give me a hard copy. Quotes have to be attached to the purchase order at the time it is submitted for those prices to be applied. There are two exceptions to this rule – Fisher and Home Depot. Quotes for both of these companies are listed on the purchasing website. Let me know when you place the order that there’s a quote and I’ll look it up.

If a vendor is not in the system, please allow extra time for them to be entered. Depending on how fast the vendor responds, this can take up to a week or more. If you have any doubts, ask and I’ll look the vendor up. I have the forms to send if they’re not in the vendor system, and will take care of getting them entered.

Once you receive all or part of the order, initial and date the packing list and turn it in so it can be recorded. The original needs to be turned in, not a copy. Occasionally, you won’t receive a packing list. If this happens, send me an email and let me know what items were received.

Please provide the following information for all orders, preferably in an email. Do not send websites, send the actual information. If you don’t find the price on the website, call the company and get it.

- **Vendor Name**
- **Item Name**
- **Product Number**
- **Quantity**
- **Price**
- **Account number**

Airgas is the exception to the information needed for purchases. They are limited in types of gas and tank size, so just tell me the type of gas needed and account number and that will generally be sufficient. I have a price list with the types and product numbers of the gases they provide. If I need any other information, I’ll let you know.

**Credit Cards:** Anything from Amazon goes on a credit card. They don’t accept purchase orders. Some small dollar items such as seeds, fish food, etc. can also be ordered using a credit card.

There is a $1000 daily limit on credit cards. This includes the product amount plus shipping. Credit card purchases cannot be split to avoid the limit. In other words, charged to two different cards or part paid one day and the rest paid the next day. If your purchase is over the dollar limit it will have to be ordered using a purchase order.
Credit cards cannot be used for the following purchases, among others:
- chemicals
- cameras/computer equipment over $500
- foreign purchases EVER – no exceptions
- services of any type
- rentals of any type
- travel
- gas for vehicles

If you use a credit card at a store, keep in mind that TTU is a tax-exempt organization and we don’t pay sales tax. TTU has an account set up with most local companies and they usually don’t charge tax. If they do charge tax, however, and you don’t notice it at the time of purchase, you will have to return to the store for a tax refund. If you’re still at the store, ask for a tax refund immediately. Please turn in all receipts to the card holder. You will need to get a “Walmart card” if you buy at Walmart. Otherwise, you will be charged tax and have to go back for a refund.

Credit cards CANNOT be used to buy gas for the vehicles. Each vehicle has a gas card that is used for that specific vehicle. There are different rules that apply to gas cards. They are in Tami James’s office and any of the admin staff can help you with getting one.

Office supplies can only be bought at Staples. Only Coca-Cola products can be bought with TTU funds, including bottled water. These are both exclusive contracts with the state of Texas and there are few exceptions granted.

If you have any questions about anything to do with purchasing, please ask. I’m happy to help.
The graduate program in Environmental Toxicology offers Doctor of Philosophy and Master of Science degrees with a major in Environmental Toxicology, a combined degree leading to a joint J.D./M.S. degree in cooperation with the Texas Tech School of Law, and a combined degree leading to a joint M.B.A./M.S. degree with the Texas Tech University Jerry S. Rawls College of Business.

Because of the multidisciplinary nature of environmental toxicology, prospective students should contact the Graduate Officer (Dr. Jaclyn Cañas-Carrell) 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 applications to both the Graduate School and the Environmental Toxicology Graduate Program.

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 and 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 a doctoral degree must pass a written exam, perform an original research project, prepare a written dissertation, and defend the 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 and research and thesis hours are chosen by the student with the guidance of his/her committee, allowing for focus on the student’s particular research emphasis. Students pursuing the M.S. degree must perform an original research project, prepare a written thesis, and defend the work in a public defense.

The J.D./M.S program is composed of 12 hours of M.S. coursework for Law School students, or 12 hours of J.D. coursework for M.S. students, which is taken out of their original degree requirements.

The M.B.A./M.S. program is composed of 26 hours of M.S. coursework and 36 hours of business administration coursework; totaling 62 hours. The required degree hours of the programs taken separately are 84.

All degree programs within the Department of Environmental Toxicology require students to take the following core courses: Statistical Applications in Environmental Toxicology (ENTX 6385), 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 the student fails to achieve a B- or higher after retaking the course, the student will be removed from the program.
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.

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.

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.


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.

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. 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 6345 or consent of instructor. Theory of isolation, detection, identification, and quantification of toxic substances and their transformation products in environmental and biological samples.

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 and 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.
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 website, [www.depts.ttu.edu/gradschool](http://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 semester), 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, 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 doctoral students must submit a “Program for the Doctoral Degree” form to the Graduate School. This form lists all required courses. It should be submitted as soon as possible but no later than the end of the second semester of enrollment in the Ph.D. degree program.

**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 his/her 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 his or her major advisor and advisory committee. Please provide one bound 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 Schools formatting guidelines. Visit [http://www.depts.ttu.edu/gradschool/current/ETD.php](http://www.depts.ttu.edu/gradschool/current/ETD.php) for more information.

**Final Oral Examination and Defense of Dissertation**
All students obtaining a Ph.D. degree will be required to pass a qualifying examination, complete a dissertation, and defend the 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. 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, a “Statement of Intention to Graduate” must be filed at the Graduate School, and a dissertation binding fee must be paid at Student Business Services (with a copy of the receipt to be left at the Graduate School). Since exact deadlines for these requirements vary with the semester, the most recent university calendar should be consulted.

**Ninety-Nine Hour Rule**
*This rule applies to all doctoral students.* Ninety-nine hours is the suggested number of hours in which a doctoral degree should be completed. Departments may apply to the Graduate School for an individual exception for students nearing the 99-hour limit. The application must be made prior to the end of the spring semester and if approved, will be in effect until the student graduates, or exceeds 130 hours. The number of exceptions granted by the coordinating board to the university is limited to 1.5% of enrolled doctoral students. If the student exceeds 130 hours the student must pay out-of-state tuition for all semester credit hours over 130.
TEXAS TECH UNIVERSITY THE GRADUATE SCHOOL
PROGRAM FOR THE DOCTORAL DEGREE

Four copies (or five if a minor is declared) of this form must be submitted to the Graduate School for approval no later than the beginning of the second year of doctoral work.

Date ___________ Official Use Only: GRE/GMAT ________  Catalog ________  Deadline ____________

Full legal name ________________________________________  Student’s ID # ______________________

Current mailing address (include zip code) _______________________________________________________

Degree Sought _______ Major _______ Minor (if declared) _______ Expected Graduation Date ________

Previous Degree(s)   Institution(s)   Year(s) Awarded
_________________________________________________________________________________________
_________________________________________________________________________________________

Doctoral advisory committee chair: ___________________ Other members (if known at this time): __________

_________________________________________________________________________________________

Dissertation topic (if known at this time):

Indicate Proposed enrollment pattern for residence year:

Coursework (prefix and number as it appears in catalog or on official transcript):

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
<th>Tool or Language</th>
<th>Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-hr min.</td>
<td>15hr. min.</td>
<td>(if declared)</td>
<td>Course# *</td>
</tr>
<tr>
<td>(60 or more hours if no minor)</td>
<td>(if required)</td>
<td>Institution</td>
<td>TTU equiv.#*</td>
</tr>
</tbody>
</table>

*In order for transfer courses to be entered on the TTU transcript, courses must be given the TTU equivalent number. For example, MGMT 630 at TAMU may be equivalent to MGT 5371 at TTU. Please indicate when course was (or will be) taken and provide official transcript. No more than 30 hours of an earned master’s degree from another institution may be transferred. Grades from transfer courses will not appear on TTU transcripts.

Signature of Graduate Advisor of major dept.  Signature of Graduate Advisor of minor dept. (if required)

Graduate Dean ___________________ Date

Approved [ ]  Conditional Approval [ ]  Not approved [ ]

Remarks or Conditions of Approval: ________________________________________________________________

Approval of this form by the Dean of the Graduate School merely indicates that the proposed program is acceptable; it carries no assurance of the applicant’s attainment of a degree. Changes to this program may be made only with the approval of the department concerned and the Graduate School, using the form available in the Graduate School. Conditions for approval for admission to candidacy must be met before the proposed semester of graduation. Revised 4/95
# THE DOCTORAL DEGREE

## LIST OF MAJOR STEPS REQUIRED BY THE GRADUATE SCHOOL

<table>
<thead>
<tr>
<th>Action</th>
<th>Initiated Through</th>
<th>Submitted to</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Plan courses for first semester</td>
<td>Graduate Advisor</td>
<td>Graduate Advisor</td>
<td>Prior to registration</td>
</tr>
<tr>
<td>2. Take preliminary exam</td>
<td>Graduate Advisor</td>
<td>Graduate School</td>
<td>Early in doctoral study, usually first semester of coursework</td>
</tr>
<tr>
<td>3. Set up doctoral advisory committee</td>
<td>Graduate Advisor</td>
<td>Graduate School</td>
<td>Prior to filing doctoral degree plan</td>
</tr>
<tr>
<td>4. File &quot;Program for the Doctoral Degree and Report of the Preliminary Exam&quot; form</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>Before the end of first year of doctoral work</td>
</tr>
<tr>
<td>5. File changes in degree program if necessary</td>
<td>Graduate Advisor, or Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>As they are determined</td>
</tr>
<tr>
<td>6. Take Qualifying Exam for major and minor subjects (results by memo)</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>After approval of doctoral program and completion of coursework</td>
</tr>
<tr>
<td>7. Recommendation for admission to candidacy (request by memo)</td>
<td>Graduate Advisor</td>
<td>Graduate Council</td>
<td>After passing qualifying exam and not later than 4 months before graduation</td>
</tr>
<tr>
<td>8. Enroll in semester of graduation if all requirements are not met (at least 3 hours)</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>Registrar</td>
<td>Semester of Graduation*</td>
</tr>
<tr>
<td>9. File &quot;Statement of Intention to Graduate&quot; Form with official title of dissertation</td>
<td>Student, Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>Semester of Graduation*</td>
</tr>
<tr>
<td>10. Pay binding fee; send copy of receipt to Graduate School</td>
<td>Student Business Services</td>
<td>Graduate School</td>
<td>Semester of Graduation*</td>
</tr>
<tr>
<td>11. Schedule oral defense of dissertation</td>
<td>Chair, Advisory committee</td>
<td>Advisory Committee</td>
<td>Semester of Graduation after approval of dissertation draft</td>
</tr>
<tr>
<td>12. Submit defense form from graduation packet at least 3 weeks before defense</td>
<td>Student</td>
<td>Graduate School Dissertation Coordinator</td>
<td>At least 3 weeks before defense</td>
</tr>
<tr>
<td>14. Stand for oral defense of dissertation; report result by memo to Graduate School</td>
<td>Advisory Committee</td>
<td>Graduate School</td>
<td>Semester of Graduation*</td>
</tr>
<tr>
<td>15. Submit 1 copy of dissertation with signed title page and required survey forms and UMI abstract to Graduate School</td>
<td>Advisory committee</td>
<td>Graduate School Dissertation Coordinator</td>
<td>Semester of Graduation (usually 5 weeks before graduation date)</td>
</tr>
<tr>
<td>16. Final grade for dissertation hours</td>
<td>Chair, Advisory committee</td>
<td>Registrar</td>
<td>On final grade roll in semester of graduation</td>
</tr>
<tr>
<td>17. Three final copies of dissertation to Graduate School</td>
<td>Student</td>
<td>Graduate School Dissertation Coordinator</td>
<td>At least 3 days before graduation</td>
</tr>
</tbody>
</table>

*Deadline packets will be sent to students according to proposed date of graduation indicated on "Program for the Doctoral Degree and Report of Preliminary Examination" Form.
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 areas in the life sciences.

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 see the TTU Graduate School website, www.depts.ttu.edu/gradschool, for a complete list of deadlines.

MS 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 “Program for the Master’s Degree and Admission to Candidacy” form to the Graduate School. This form lists all required courses for graduation. It should be submitted as soon as possible but no later than the second semester of enrollment. Changes can be made, but need to be approved by the advisory committee and filed with the Graduate School.

**Thesis**
The Master’s thesis represents original research conducted by the student under the direction of his or her major advisor and advisory committee. Official copies are received electronically as ETD’s. ETD documents must be prepared in accordance with the Graduate Schools formatting guidelines. Visit [http://www.depts.ttu.edu/gradschool/current/ETD.php](http://www.depts.ttu.edu/gradschool/current/ETD.php) for more information.

**Final Oral Examination and Defense of Thesis**
All students obtaining an 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.

**Additional Graduation Requirements**
During the semester of intended graduation, a “Statement of Intention to Graduate” must be filed at the Graduate School, and a thesis binding fee must be paid at Student Business Services (with a copy of the receipt to be left at the Graduate School). Since exact deadlines for these requirements vary with the semester, the most recent University calendar should be consulted.
After admission to a degree program, every applicant for the master’s degree is required to complete three copies (or four if a minor is outside of the department) of this form must be submitted to the Graduate School for approval before the second semester of enrollment in the program.

Date ___________ Official Use Only: GRE/GMAT _______ Catalog________  Deadline ___________
Full legal name ___________________________________________ Student’s ID #_____________________
Current mailing address (include zip code) ________________________________
Degree Sought ___________________ Major _______________ Expected Graduation Date ___________________
Previous Degree(s)   Institution(s)   Year(s) Awarded ______________________________________________________

Circle one: thesis/non-thesis
Thesis committee (at least two Graduate Faculty members; indicate chairperson):

____________________________________________________________________________________

Thesis topic

____________________________________________________________________________________

Coursework (prefix and number as it appears in catalog or on official transcript)
(30 hr. min. for master’s degree):

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
<th>Tool or Language</th>
<th>Leveling (if required)</th>
<th>Transfer Course#*</th>
<th>TTU Institution equiv.#*</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-hr min.</td>
<td>6hr. min.</td>
<td>(if declared)</td>
<td>(if required)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*In order for transfer courses to be entered on the TTU transcript, courses must be given the TTU equivalent number. For example, MGMT 630 at TAMU may be equivalent to MGT 5371 at TTU. Please indicate when course was (or will be) taken and provide official transcript. No more than 6 hours may be transferred on a 36-hr, 9 on a 45-hr. program. Grades from transfer courses will not appear on TTU transcripts.

Signature of Graduate Advisor of major dept.              Signature of Graduate Advisor of minor dept.

________________________________________   _____________________

Graduate Dean   Date
Approved [ ]    Conditional Approval [ ]     Not approved [ ]

Remarks or Conditions of Approval: ____________________________________________________________

Approval of this form by the Dean of the Graduate School merely indicates that the proposed program is acceptable; it carries no assurance of the applicant’s attainment of a degree. Changes to this program may be made only with the approval of the department concerned and the Graduate School, using the form available in the Graduate School. Conditions for approval for admission to candidacy must be met before the proposed semester of graduation. Revised 4/95
# THE MASTERS DEGREE

## LIST OF MAJOR STEPS REQUIRED BY THE GRADUATE SCHOOL

<table>
<thead>
<tr>
<th>Action</th>
<th>Initiated Through</th>
<th>Submitted to</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Plan courses for first semester</td>
<td>Graduate Advisor</td>
<td>Graduate Advisor</td>
<td>Prior to registration</td>
</tr>
<tr>
<td>2a. Set up thesis or comps. advisory committee</td>
<td>Graduate Advisor</td>
<td>Graduate School</td>
<td>Prior to filing masters degree plan and candidacy form</td>
</tr>
<tr>
<td>2b. File &quot;Program for the Masters Degree and Admission to Candidacy&quot; form</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>During first semester of masters coursework.</td>
</tr>
<tr>
<td>3. File changes in degree program if necessary</td>
<td>Graduate Advisor, or Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>As they are determined</td>
</tr>
<tr>
<td>4. File &quot;Statement of Intention to Graduate&quot; form, including official title of thesis, if applicable</td>
<td>Student and Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>Semester of Graduation*</td>
</tr>
<tr>
<td>5. Get thesis packet containing title page</td>
<td>Graduate School thesis Coordinator</td>
<td>Advisory Committee</td>
<td>Prior to defense of thesis</td>
</tr>
<tr>
<td>6. Pay diploma fee, and thesis fee if applicable; send copy of receipt to Graduate School</td>
<td>Student Business Services</td>
<td>Graduate School</td>
<td>Semester of Graduation*</td>
</tr>
<tr>
<td>7. Schedule final comp. examination/defense and send results by memo to Graduate School</td>
<td>Graduate Advisor or Chair, Advisory Committee</td>
<td>Graduate School</td>
<td>Semester of Graduation*</td>
</tr>
<tr>
<td>8. Submit one copy of thesis with signed title page to Graduate School</td>
<td>Advisory Committee</td>
<td>Graduate School Thesis Coordinator</td>
<td>Semester of Graduation (usually 5 weeks before graduation date)</td>
</tr>
<tr>
<td>9. Final grade for Thesis hours</td>
<td>Chair, Advisory Committee</td>
<td>Registrar</td>
<td>On grade roll in semester of graduation</td>
</tr>
<tr>
<td>10. Three final copies of thesis to Graduate School</td>
<td>Student</td>
<td>Graduate School Thesis Coordinator</td>
<td>At least 2 days before graduation</td>
</tr>
</tbody>
</table>

*Deadline packets will be sent to students according to proposed date of graduation indicated on "Program for the master’s degree and admission to candidacy" form.*
JOINT DEGREE PROGRAMS

J.D./M.S. in Environmental Toxicology
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 joint degree program in Environmental Toxicology is one way to enrich the environmental curriculum to the advantage of both law and graduate students. The joint degree candidate must choose to get 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 (See Table A1).

<table>
<thead>
<tr>
<th>TABLE A1. Example Joint Degree Program Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular J.D. Degree Requirements</td>
</tr>
<tr>
<td>Regular M.S. (ENTX.) Requirements</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Joint Degree Program Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.D. Degree Requirements</td>
</tr>
<tr>
<td>M.S. Degree Credit</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

**Joint J.D./M.S. in Environmental Toxicology Degree Program Description**
The joint 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 TIEHH graduate program. 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 TIEHH courses listed below (Table B1) to satisfy a maximum of twelve (12) credit hours toward the J.D. degree. The list of TIEHH courses accepted for credit toward the joint 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 TIEHH or other non-law courses applied toward a joint degree must be approved either by the law faculty or the Office of the Dean before being taken by a law student for credit.

<table>
<thead>
<tr>
<th>TABLE B1. Environmental Toxicology Courses for the J.D. Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Law School will give a maximum of 12 hours of credit toward the J.D. degree for completion of M.S. degree courses listed below which have been approved by the law faculty.</td>
</tr>
<tr>
<td>ENTX 6325  Principles of Toxicology I (3 credits)</td>
</tr>
<tr>
<td>ENTX 6326  Principles of Toxicology II (3 credits)</td>
</tr>
<tr>
<td>ENTX 6345  Chemical Sources and Fates in Environmental Systems (3 credits)</td>
</tr>
<tr>
<td>ENTX 6115  Interdisciplinary Seminar in Environmental Toxicology (1 credit)</td>
</tr>
<tr>
<td>ENTX 6361  Environmental and Wildlife Toxicology (3 credits)</td>
</tr>
<tr>
<td>ENTX 6371  Procedures and Techniques in Ecological Risk Assessment (3 credits)</td>
</tr>
<tr>
<td>ENTX 6351  Analytical Toxicology (3 credits)</td>
</tr>
</tbody>
</table>
For students in the joint degree program, TIEHH will give 12 hours of credit toward the M.S. degree in Environmental Toxicology for completion of the J.D. degree courses listed below (Table B2).

**TABLE B2. Approved Law Courses for the M.S. Degree**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>6021-5</td>
<td>Law and Science*</td>
<td>3</td>
</tr>
<tr>
<td>6023</td>
<td>Environmental Law*</td>
<td>3</td>
</tr>
<tr>
<td>6021-4</td>
<td>Environmental Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>6005</td>
<td>Administrative Law</td>
<td>2 or 3</td>
</tr>
<tr>
<td>6025</td>
<td>Land Use Planning</td>
<td>2 or 3</td>
</tr>
<tr>
<td>6221-2</td>
<td>Constitutional Law Seminar: Environmental Issues</td>
<td>3</td>
</tr>
<tr>
<td>6021-9</td>
<td>Texas Environmental Law</td>
<td>2 or 3</td>
</tr>
<tr>
<td>6021-3</td>
<td>Corporate Aspects of Environmental Law</td>
<td>3</td>
</tr>
<tr>
<td>TBA</td>
<td>International Environmental Law</td>
<td>2 or 3</td>
</tr>
</tbody>
</table>

Joint J.D./M.S. in Environmental Toxicology candidates must take Law and Science and Environmental Law courses as additional law school requirements for the program.

**M.B.A./M.S. in Environmental Toxicology**

The opportunity for advancement to management and administrative positions in the field of Environmental Toxicology requires professionals whose education is strongly based in both toxicology and business. This program brings together the expertise of TIEHH and the Jerry S. Rawls College of Business.
TIEHH/ENVIRONMENTAL TOXICOLOGY GRADUATE STUDENT ASSOC.

All incoming students are encouraged to become active in the Environmental Toxicology graduate student group. Membership in the association is open to any graduate student in, or involved with, the department of Environmental Toxicology at Texas Tech University. Members shall pay dues of $15 per academic year, and will be requested to attend monthly meetings and provide occasional assistance with volunteer opportunities.

The student group provides a means for students in the department to voice any concerns to the university or departmental administration, get assistance in developing professional skills, and network with your peers. We provide an avenue for interaction and communication among the graduate students and members of the faculty, the staff, the departmental administration, as well as the University. The focus of the association is to (1) promote camaraderie and scientific interaction among graduate students involved with the Environmental Toxicology department, as well as members of other TTU academic departments; (2) promote scientific interaction among Institute graduate students and members of other universities through attendance at scientific meetings; (3) promote the effectiveness and diversity of environmental toxicology courses currently taught at the University; (4) promote graduate student scholarship; and (5) act as a service organization for the Institute and University.

LE – SETAC

LE-SETAC is an independent, non-profit, student organization of the Society of Environmental Toxicology and Chemistry (SETAC). It promotes graduate research, education, and development in the areas of environmental toxicology, environmental chemistry, remediation, and risk hazard assessment. LE-SETAC promotes a forum for communication between students and professionals in government, industry, and academia.

We welcome both graduates and undergraduates pursuing careers in the fields of biology, chemistry, physics, mathematics, microbiology, biochemistry, geology, environmental engineering, and environmental toxicology or otherwise a basic interest in environmental issues. The member fee is $15 per year.

Primary activities of the Student Chapter include education outreach and funding-raising events to help members travel to scientific meetings. Members volunteer multiple times a semester to teach inquiry-based science experiments at local elementary and middle schools. Previous experiments have included animal communication, predator-prey relations, and oil spill remediation. Members also are volunteer judges for both local and regional science fairs. LE-SETAC is also a proud participant in the Adopt-a-Highway program.
Graduate School Web Page
The Graduate School maintains a current web page, [www.depts.ttu.edu/gradschool/](http://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
- The Graduate Catalog
- Academic departmental information
- Information about various student services
- Graduation deadlines and requirements
- Minutes from Graduate Council Meetings

Graduate School 742-2781
Holden Hall Room 02—in the basement of “old” Holden Hall

Please let Allyson Smith, Graduate Program Coordinator, or your major professor, contact the Graduate School. Please do not call the Graduate School directly with problems you are having.

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](http://www.depts.ttu.edu/gradschool/) 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 or 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.
Filing a Degree Program
The Graduate School requires all graduate students to file a degree plan with their advisor as well as with the Graduate School during their first semester of enrollment. You can obtain this form by contacting Allyson Smith or the Graduate School.

Steps to Graduation
The Graduate School prints a list of “Steps to Graduation” for both Master’s and doctoral students. See Appendix.

Requesting your PIN: (Personal Identification Number)
- Every student must have an eRaider account in order to register and access student records over the internet.
- Call 742-HELP to set up your account.

Registering for Classes
Registering for classes can be done at: www.raiderlink.ttu.edu. Before you register, you should:
  a. Check the Registration Schedule to see when you are eligible to register.
  b. Make a list of the CRN numbers of the classes you want to register for.

  1. Log in to Raiderlink.
  2. Click on the MyTech (for Students) tab.
  3. Click on “Select Term” from Registration menu.
  4. Enter the term, and choose the courses from the drop down menu.
  5. Classes you were successfully registered for will appear in the Currently Registered Classes table. If any class did not work, you will be shown these in a table at the top of the page.

Paying Tuition
You may pay your tuition online when you are logged on to the Raiderlink system by:
  1. Click on the MyTech (for Students) tab.
  2. Click Account Summary from the Student Account menu.
  3. Select the term for which you want to see a bill and click Select.

You may also pay your bill by visiting Student Business Services in West Hall 301 or by faxing payment information to (806) 742-5910.

Policy/Procedure – Enrollment
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. Full-time enrollment in a summer session is from 3 to 6 hours. Effective September 1, 1998, doctoral students who have completed course work, passed qualifying exams, are admitted to candidacy, and have accumulated at least 85 doctoral hours may register as full-time students for one semester, taking the number of hours (but not less than 3) that will bring him or her up to 93 hours, and then may register as full-time students for up to two more semesters of 3 hours each which will constitute “full enrollment” for employment purposes. (Two summer terms shall count as one semester). Graduate students with excess hours will not be employable by the University effective September 1, 1998.
As of September 1, 1998, students with 130 + doctoral hours will pay out-of-state tuition regardless of residency status; as of September 1, 1999, students with 99 + doctoral hours will pay out-of-state tuition regardless of residency status. 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.

However, students must be enrolled full-time (at least 9 hours in each long term, 3 hours in each relevant summer session) 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 certain types of financial aid. Foreign students are also required to be enrolled full-time. 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 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 (at least 3 hours in each 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.

3. Doctoral Residence
   Each student fulfilling the doctoral residence requirements will enroll for at least 24 hours in one calendar year. Any other pattern of enrollment to meet the doctoral residence requirement must be approved in advance by the Dean of the Graduate School. 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, with departmental support, submit proposals for consideration of alternate patterns of enrollment to complete the residence requirement. Alternate patterns exist for the Doctor of Education, as described in the College of Education section of the Graduate Catalog.

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.
Policy / Procedure – Graduate Student Employment

1. Definition of Graduate Student Terms
   a. **Graduate Assistant** A graduate student employed to perform work which utilizes knowledge beyond undergraduate academic studies. The position of Graduate Assistant is intended for graduate students employed in capacities other than teaching or research.
   b. **Graduate PT Instructor (GPTI)** A graduate student in an institution of higher education employed in support of the teaching mission of the unit who is responsible for, or in charge of, a class or class section, or a quiz, drill, or laboratory section. The graduate student must have at least 18 graduate hours in the teaching field.
   c. **Research Assistant** A graduate student employed in support of the research mission of the department to perform laboratory, library, field, computer, or other such activities as may assist the department’s research effort. The position of Research Assistant is intended for graduate students employed to perform research activities.
   d. **Teaching Assistant** A graduate student employed in support of the teaching mission who is responsible for, or in charge of, a class or class section, or a quiz, drill, or laboratory section. The position of Teaching Assistant is intended for graduate students employed in teaching activities. The source of funds is ordinarily an academic account.

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 academic training in occupational categories that require student status as reported to the Coordinating Board as a condition of employment. These occupational categories are:
      - Graduate Assistant
      - Graduate PT Instructor
      - Research Assistant
      - Teaching Assistant
   b. **Conditions of Employment**
      A student employee 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. Employment as a Graduate Assistant or Research Assistant may be on an hourly or salaried basis. Employment as a Teaching Assistant, Graduate PT Instructor, or Residence Hall Assistant must be on a salaried basis.
   c. **Graduate Student Status**
      Individuals employed as Teaching Assistants, Graduate Part-time Instructors, Research Assistants, or Graduate Assistants are expected to be enrolled in Graduate School full time (see Ops 64.02 and 64.03). Effective with registrations for fall semester 1995, students who register for graduate courses must be classified as **GM** (graduate master’s), **GD** (graduate doctoral), **GTMP** (graduate temporary),
or CERT (working for certification). Students with earned undergraduate degrees who take only undergraduate courses will be designated PGRD. Students holding PGRD status do not qualify for employment as Research, Teaching, Graduate Part-time Instructor, or Graduate Assistants. Graduate students in a TTU college or school must receive approval from the TTU Graduate Dean prior to accepting any student employment at Texas Tech, including the Health Sciences Center.

d. Verification of Student Status

Upon the initial hiring of an individual into a position requiring student status, the department shall obtain a copy of the person’s student ID card and a copy of the social security card and attach them to the Personnel Action Form (PAF). As a condition of employment, the student’s ID number must be the same as the student’s social security number. If the number on the student ID card is different from that shown on the social security card, a student enrolled at Texas Tech University must be directed to the Registrar’s Office, room 115, West Hall to initiate a change to the Student Information System. A student enrolled at Texas Tech University Health Sciences Center must be directed to the HSC Office of the Registrar, Room 3B310, to initiate a change to the HSC Student Information System. In order for the individual to be employed in a position requiring student status, the student must deliver to the department a receipt from the Registrar’s Office that the change has been requested. The receipt must be attached to the PAF.

Periodically, the TTU Personnel Department and HSC Human Resources Department will receive a report listing individuals who are not enrolled but are employed in positions requiring Texas Tech student status. Departments will be notified to initiate a PAF to change the appointment to a staff position with any applicable benefits or separate the person from employment.

Upon the initial hiring of an individual into a position requiring student status at an institution of higher education other than Texas Tech University or Texas Tech University Health Sciences Center, the department must obtain evidence that the individual is enrolled at another institution. A copy of this evidence must be attached to the PAF. The department is to instruct these students to inform the department if they withdraw from school during the semester. At the beginning of each semester, the department is to obtain evidence that the student is continuing enrollment and maintain such evidence in a departmental file which will be subject to audit. A copy of this evidence must be attached to any subsequent PAFs. At any time the individual ceases to be a student, the department is to initiate a PAF to change the appointment to a staff position with any applicable benefits or separate the person from employment.

e. College Work Study

The Financial Aid Office will be responsible for supervision of all aspects of student employment involving recipients of College Work Study through Financial Aid programs. The Financial Aid Office will be responsible for:

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

f. **Student Relationships Which are Not Employment**
   A student is not considered an employee when the activities of the student meet all the criteria listed below. If any one of these criteria is not met, the student is considered an employee and is entitled to compensation.
   
   1. The activities are a part of the curriculum.
   2. The activities are for the benefit of the student.
   3. The student does not displace other employees, but works under their close supervision.
   4. The department providing the training derives no immediate advantage because of the activities of the student, and on occasion, the operations may actually be impeded.
   5. The student is not entitled to a job at the conclusion of the training.
   6. Both parties understand that the student is not entitled to wages for the time spent in training.


g. **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, age, disability, national origin, or Vietnam veteran status, and in keeping with the laws and regulations of the State of Texas and the Board of Regents.

   The availability of minorities and women applying for student positions is controlled by their representation in the student body. Therefore, departments and units using student employees will need to make an extra effort to assure adequate representation by minorities in the recruiting, selection, and appointment procedures. The account administrator is required to ensure that reasonable accommodations are provided for an otherwise qualified individual with a disability.

h. **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 Personnel Pay Plan. See OP 70.14 regarding salary administration policies for student employees.

i. **Benefits**
   All student employee appointments are considered to be 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 PT Instructor (GPTI), Research Assistants, and Graduate Assistants who are employed to work at least 20 hours per week for a period of at least four and one-half months per year and are eligible to participate in the Uniform Group Insurance Program (see OP 64.11). **There is a mandatory 90 day waiting period before any Texas Tech employee is eligible for benefits.**
Graduate students who are not currently eligible for insurance, but are appointed for at least 50 percent time 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 4.5 months.

The premium sharing for employee’s group insurance is charged proportionately based upon the funding for the salary payments made during each month. This is a direct charge to any local accounts. Any state amount is not charged to the departmental operating accounts.

It is the employing department’s responsibility to assure 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 PAF is received in the Personnel Records Section. Separation PAFs with retroactive termination dates on them will not be processed. Example: If a department wishes to terminate an insurance eligible graduate student at the end of May, the separation PAF must be submitted to the Personnel Records Section before the end of May. If the separation PAF is received after the end of May, the date of the separation will be the end of the month in which the separation PAF is received. The person would be considered on summer between-term leave without pay from end of the funding period to the separation date.

j. Payroll Signup
Each newly-appointed student employee shall be required to complete an employee’s affidavit, biographic data form, and tax withholding form (W-4), and Form I-9 within the first three days of employment and prior to being placed on the payroll. TIEHH must have a copy of student’s social security card and driver’s license prior to working for I9 verification. Foreign students have other processes required for work employment verification. As soon as a decision is made to appoint a student employee, the administrator should send the student to the department’s Employment Services Coordinator for completion of the prescribed forms. A delay in completing the necessary forms will delay the student’s first salary payment.

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 a Personnel Action Form (PAF). The PAF must be routed for appropriate signatures (referring to the Signature Authority Chart, Attachment A) to the Personnel Department.

By the appointment of a Student Assistant or a High School Student Worker, the account administrator certifies that the nominee is fully qualified to perform the duties to be assigned and that funds for the position have been approved. The account administrator further certifies that, to the best of his knowledge, the appointment, if approved, will be accepted by the nominee at the salary and percent of time indicated on the PAF.
The signature of the Graduate Dean certifies that the nominee is a graduate student in good standing with the University, that the salary level indicated complies with the salary ranges set for graduate students in the University, or that 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 a PAF 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 a PAF through appropriate administrative channels to the Personnel Department.

5. Student Appointments
Graduate Assistants, Research Assistants, Graduate Part-time Instructors, Teaching Assistants, and Scholar Student Assistants employed on a monthly basis are paid for the accomplishment of assigned tasks and are considered to be exempt from accounting for hours worked. An individual should 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 (time sheets required) capacity during the same workweek. However, if approved as an exception, an employee employed in any capacity which 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.

- See OP 70.14, Salary Administration Policy, and OP 64.11, Insurance Coverage of Graduate Student Employees, for other information on appointing students.

6. Student Employment FICA Exemption
- IRS Revenue Procedure 98-16 Effective with work performed after June 30, 2000, eligible Texas Tech student employees will be exempt from paying FICA taxes.
- Modification No. 1496 to the Texas State Social Security Agreement under Section 218

1. Eligibility Criteria
   a. Employed at Texas Tech University (TTU) or Texas Tech University Health Sciences Center (TTUHSC) in job categories requiring student status as a condition of employment. Concurrent appointment in job categories requiring student status and job categories not requiring student status will cause the individual to lose the exemption from FICA taxes.

   Exclusions from Eligibility for Exemption
   b. Faculty
   Staff
   Postdoctoral students
   Postdoctoral fellows
Medical residents
Medical interns
Must be enrolled one-half time at TTU or TTUHSC. Enrollment at TTU and TTUHSC will be combined to determine enrollment level. Students must 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 and any corrections will affect future payrolls, and will not result in retroactive adjustments to withholding.

Enrollment Requirements
Eligibility for the FICA exemption is determined 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 point in 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 totally between terms of less than five weeks will be determined based upon enrollment during the preceding term. Eligibility for pay periods encompassing time in a preceding term and a between term period will be determined based upon the enrollment during the preceding term. Eligibility for pay periods encompassing time between terms of less than five weeks and the new semester will be determined 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 totally within a semester will be determined based upon the enrollment level for that semester.

7. Right to Change Policy
Texas Tech University 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 PC labs available to students during Library hours. ATLC 742-1650 Internet Address http://www.depts.ttu.edu/itts/labs/

Computer Assistance
IT Help Central Help Desk (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.

Community Service
The Community Action Network (CAN) provides information about community and campus volunteer opportunities as well as educational programs. The length of commitment varies depending on the project chosen.
Event Tickets
Tickets can be purchased at the Athletic Ticket Office. Purchase options include:
  - Individual events
  - Season ticket packages
  - All-sports packages - All-sports packages at discounted prices are available to students who have paid the Group IV portion of the student service fee.
  - Athletic Ticket Office 742-4412

Intercollegiate Athletic Events
As a member of the top-rated Big 12, Texas Tech continues to provide exciting intercollegiate athletic competition for men and women. Women compete in intercollegiate volleyball, soccer, basketball, golf, tennis, softball, cross country, and track and field. Men compete in football, basketball, cross-country, track and field, baseball, golf, and tennis.

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 –Jessica.L.Simpson@ttu.edu or 806.834.7878.

Access to Off-Campus Library Material
Materials not available in the Texas Tech Libraries may be requested by using Interlibrary Loan forms at the Reference Desk or by using the Library Information System. Materials are provided at no cost to the student. Contact the Circulation Desk about a Tex-Share library card that allows borrowing privileges at any public four-year college or university in Texas. Students agree to follow all regulations of other libraries, and to return borrowed material in person or by mail.
  - Library Internet address: http://www.library.ttu.edu/
  - Circulation 742-2265
  - Hours 742-2251
  - Interlibrary Loan 742-2239
  - Reference 742-2236

Museums/Galleries
The Museum of Texas Tech University consists of the main museum building, the Moody Planetarium, the Ranching Heritage Center, and the Lubbock Lake Landmark State Historical Park. The Museum of Texas Tech University contains temporary and permanent exhibits about the visual arts and the social and natural sciences. The Moody Planetarium has an 82-seat auditorium that offers public and specially designed school programs. The Ranching Heritage Center is an outdoor 14-acre museum with 35 historic structures that depict the history of Southwest ranching. Special events such as Ranch Day in the fall and Candlelight at the Ranch in December are popular community events. The Lubbock Lake Landmark State Historical Park is a world-renowned archaeological site. The park offers tours and programs related to the on-going archaeological research.
  - Museum Building 742-2442
  - Tours and Programs 742-2456
  - Visitor Information 742-2490
  - Ranching Heritage Center 742-0498
  - Lubbock Lake Landmark 742-2481
**Student Organizations**
Center for Campus Life provides opportunities for leadership development, application of classroom knowledge, opportunities to seek new interests, and the exploration of career aspirations. There are many minority student organizations that address a variety of academic, social, cultural, and pre-profession concerns of African-American, Hispanic, and Asian students.

**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 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 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 Program provides outdoor experiences through equipment rental, clinics, trips, and 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, and water and snow skiing. Texas Tech offers a year-round intramural program with a variety of sports for men, women and co-rec teams. All tournaments are open to students, faculty, staff, and spouses with current Recreation Center passes. Recreation Center 742-3351

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

I. General

1) Students must have a cumulative grade point average of at least 3.0 for all non-research classes.
2) If a student receives a C in any Department of Environmental Toxicology (DET) core course, this course will not be applied toward their requirements for graduation and they must retake the course and receive a grade of B or above.
3) If a student receives a D in any course, they will not get credit for this course in fulfilling their degree plan.
4) 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.
5) If a student has recently fulfilled all of his/her 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.
6) No student will be allowed to graduate if they have been placed on academic probation in their ultimate semester, or if they have not fulfilled the requirements to be taken off academic probation by their proposed time of graduation.

**Important Information Regarding Departmental Stipends**

If you are a graduate student receiving a departmental stipend from TIEHH, the following criteria must be met:

1. Identify and formally designate a faculty research advisor within sixty days of beginning at TIEHH.
2. Work with your advisor to develop a tentative plan of study and conceptual research project.
3. Perform satisfactorily and meet all requirements in advisor’s laboratory.
5. 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.
6. Maintain a 3.0 or higher in all core courses. If a C or lower is received on a core course, departmental funding is immediately revoked.

If you do not fully meet these criteria, your departmental funding will be immediately discontinued.
II. Academic Probation

A. Students will be placed on academic probation if they:

1. Fail to maintain a cumulative 3.0 GPA in all non-research classes,
2. Receive two or more C's in any course in the current semester,
3. 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:

1. Raise their non-research, cumulative GPA to 3.0 or higher within two academic (non-summer) semesters,
2. Obtain a non-research GPA of 3.0 or higher in the academic semester following placement on academic probation,
3. Not receive a grade of C or below in any DET course while on academic probation,
4. 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 Acceptance Committee, a student may be accepted into the program on conditional probation. This may be either academic or deficiency probation.

1. Academic conditional probation: if the student has a previous record of questionable academic performance, the Graduate Acceptance Committee may place that student on academic probation from the moment they enter the DET program. The student and advisor must receive written notification of this upon the entrance of the student into the DET program.

2. Deficiency conditional probation:
   a. If a student is admitted to the DET program without all of the DET prerequisites, they must fulfill their deficiencies within one years 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, but if not, an official transcript must be provided to the Graduate Acceptance Committee as proof of grades and credit.
b. If a student fails to complete the prerequisites of the DET within one year, they will be placed on academic probation. If they fail to complete the prerequisites by the end of the academic probation, or if they fail to meet the requirements of academic probation, they may face termination from the DET graduate program.

c. A student may begin taking DET courses before all deficiencies have been fulfilled; however, during this time they must make a grade of B or higher in any such DET courses taken, or they will be placed on academic probation.

III. Students may be terminated from the DET if:

1. They fail to meet the requirements of academic probation within two academic semesters,
2. They are placed on academic probation more than once,
3. They receive a D in any DET course,
4. They receive an F or more than one D in any course,
5. They fail to get a B or better after retaking any core course.

IV. Extenuating circumstances

If there are reasonable extenuating circumstances, the student may appeal the Graduate Acceptance 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 advisor may petition the committee.

If for personal reasons 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 Acceptance 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 Acceptance Committee with a signature of the student's advisor.

Plagiarism in the Department of Environmental Toxicology

1. Instances of 0% tolerance for plagiarism:
   a. 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.

   b. 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 Graduate School and the Texas Tech Committee for Academic Misconduct.
2. Plagiarism in homework assignments or class papers:
   a. First Offense:
      ⇒ If ≤5% of the total word count of the assignment is plagiarized, the grade for that assignment will be penalized 20% or two letter grades.
      ⇒ If > 5% of the total word count is plagiarized, the student will receive a failing grade for the assignment.
      ⇒ 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.
      ⇒ Written warning will be distributed to the student, their advisor, and their departmental file.
   b. Second Offense:
      ⇒ If ≤ 5% of the total word count of the assignment is plagiarized, the student will be given a failing grade for the assignment.
      ⇒ 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.
      ⇒ Written warning will be distributed to the student, their advisor, and their departmental file.
   c. Third Offense:
      ⇒ Regardless of the amount of materials plagiarized, the student may be terminated from the Environmental Toxicology program.
      ⇒
3. 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 TIEHH 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, TIEHH Faculty will:

1. Conduct an Academic Performance Review of first-year graduate students after nine months as their major advisor (regardless of stipend funding source), with a summary statement of Advisor’s assessment of adequate or inadequate progress submitted via e-mail to the Department Graduate Student Coordinator.

2. Conduct a Research Performance Review of graduate students (regardless of stipend funding source) annually no later than October 31st. The existing attached form entitled “TIEHH GRADUATE STUDENT ANNUAL RESEARCH PERFORMANCE REVIEW” will be utilized for the annual Research Performance Review. Faculty advisors will maintain the original in their files, and will forward a copy of completed and signed student evaluation to the Department Graduate Student Coordinator.

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; ultimately reflecting such effort in the Research Performance Review report.

4. The Department Graduate Student Coordinator will inform graduate students of the following policies:
   a. Non-thesis graduate students are not eligible for Departmental Stipends.
   b. 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 Student Coordinator for submission to the Graduate Admissions Committee for consideration and resolution.

Additionally, the following process and criteria for allocation of Departmental Stipends was established by Faculty agreement:

DEPARTMENTAL STIPEND ALLOCATION PROCESS:

1. Departmental Stipends will be allocated for the Fall of each academic year, and will be awarded for the period of one (1) year.
   a. Exceptions may occasionally be made for openings available for the Spring semester.
   b. Stipends may be occasionally awarded for a period of more than one year at the discretion of the Graduate Admissions Committee and Department Chairman. 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, and must be accompanied by a letter of recommendation from their major advisor, and include all Academic Performance and Research Performance Reviews.
2. Important DATES:

   **Jan 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.

   **1st week of Feb:** Application deadline for new Departmental Stipends to begin in Fall of the next academic year.

   **2nd week of Feb:** Graduate Admissions Committee finalizes recommendations on Departmental Stipend allocations.

   **3rd week of Feb:** Graduate Admissions Committee presents recommendations to full faculty.

   **2nd week of Oct:** Application deadline for new stipends to begin in the Spring of the next academic year.

3. Departmental Stipend Allocation Decision Process:

   a. All new stipend applicants are ranked by the Graduate Admissions Committee based on information in the student’s graduate folder. 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. TIEHH faculty may write additional letters of support for any applicant.

   b. The Committee will allocate available Departmental Stipends based on:

      (1) Ranking of new stipend applications.

      (2) 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 Chairman as a part of faculty start-up will be given preference.

      (3) The Committee will allocate stipend positions designated as Teaching Assistant’s consistent with upper administration allocation guidance to support departmental courses.

      (4) The Committee will inform the TIEHH 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.
ATTACHMENT: TIEHH GRADUATE STUDENT ANNUAL RESEARCH PERFORMANCE REVIEW

Student’s Name: _______________________________  Program (circle one): Ph.D. / M.S.

Semester and year student entered current program of study: ______________

Please include a summary of student’s activities and accomplishments in the following areas for the time period of October 1, 20_____ through September 30, 20_____.

I. Publications
   A. Published or in press
   B. Submitted for publication

II. Presentations (first author or presenter only)
   A. National meeting
   B. Regional meeting
   C. Invited speaker: (may be either external [non-TTU] seminar or meeting.)

III. Awards, honors, & official recognitions (excluding fellowships)
   A. National
   B. Professional society (exclusive of travel awards)
   C. Regional chapter of professional society
   D. Texas Tech
   E. Travel awards

IV. Grants & Fellowships
   A. Awarded
   B. Applied for
   C. Significant participation in Federal Research Grant application with Faculty

V. Service (Please list all service activities. Examples include: Student Representative on Texas Tech University Committees; Active Involvement in National Professional Society; Active Involvement in Regional Chapter of Professional Society; Membership in a National Professional Society; Membership in a Regional Professional Society; Texas Tech Graduate Student Government Association; TIEHH Student Government; Other non-compensated departmental service; Community service ).

Performance Rating (enter appropriate rating):

<table>
<thead>
<tr>
<th>Trait</th>
<th>Rating 1 – 5*</th>
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<tbody>
<tr>
<td>Reliability, ability to be team player, and work ethic.</td>
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</tr>
<tr>
<td>Technical comprehension and eagerness to gain knowledge.</td>
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<tr>
<td>Problem-solving and ability to execute creative thought.</td>
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* 1 = Below expectations; 2 = Below expectations, but improving; 3 = Meets minimal expectations; 4 = Fully meets expectations; 5 = Routinely exceeds expectations.

Student Acknowledgement: “I have read and discussed this evaluation with my Advisor and am aware that I may file a written rebuttal within 14 days to the Graduate Student Coordinator to be filed with this report.”

Student Signature: _______________________________  Date: _______________

An additional accompanying confidential letter further summarizing Advisor’s assessment is to be submitted directly to the Chairman of the Graduate Admissions Committee.

Major Advisor’s Signature: _______________________________  Date: _______________