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GRADUATE PROGRAMS
TIE³S, BAYLOR UNIVERSITY
Spring 2010

by
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Adapted from original Biology Program by Kenneth T. Wilkins

OBJECTIVES of the PROGRAM

The Graduate Program of The Institute of Ecological, Earth, and Environmental Sciences (TIE³S) offers doctoral training through the Ecological, Earth, and Environmental Sciences (EEES) Ph.D. program. The EEES program is a Ph.D. level program that provides a framework for collaboration among the Departments of Biology, Geology, Environmental Science, Chemistry & Biochemistry, Statistics and other departments at Baylor. Within this framework, students will work on interdisciplinary research and coursework that is designed to suit an individual research concentration tailored by the student and his/her committee.

By fostering a diversity of student interests and focusing on interdisciplinary research, this graduate program should stimulate students to think broadly about their own disciplines that may lead to novel research objectives. The EEES program is a framework for collaboration among the Departments of Biology, Geology, Environmental Science, Chemistry & Biochemistry, Statistics and other departments at Baylor. Within this framework, students will work on interdisciplinary research and coursework that is designed to suit an individual research concentration tailored by the student and his/her committee. Through the free exchange of information, it is hoped that each student will broaden his/her intellectual perspectives, prepare for a productive vocation, and realize his/her potential as an individual and as a responsible and informed member of society.

It is our intent to produce scientists who are well-grounded in the breadth of earth system science. This perspective has been described by Martin Ruzek as “The organizing power of the evolutionary paradigm... is paralleled by the organizing power of an Earth system perspective.” This field of discovery is an emerging, dynamic, and evolving form of knowledge that seeks to define Earth system processes and phenomenon within the context of human social activities. As also noted by Ruzek, “The intersection of disciplinary specialties often provides the most fertile and interesting fields for study, but is easily sidetracked by traditional disciplinary interests.”

Best wishes as you endeavor on your course of study in this program!
PROGRAM of STUDY: DOCTOR of PHILOSOPHY DEGREE in EEES

Beginning Fall 2008, TIE$^3$S initiated the Doctor of Philosophy program. This program involves an in-depth, independent, original research experience culminating in an approved dissertation. It is expected that the doctoral graduate will be properly equipped with the knowledge and training needed to independently pursue projects of fundamental importance through research and to teach at an advanced level in his/her area of specialty and at introductory levels the basic concepts of earth system science (ESS).

Program Objectives

1. Students will demonstrate proficiency in ESS gained through formal coursework, directed and readings, research collaborations, etc.

Four topical areas are recognized. Representative subtopics are listed below for each of the content areas:

- **ENVIRONMENTAL AND ANALYTICAL CHEMISTRY**
  - Stable isotopes
  - Environmental organics
  - Atmospheric gasses
  - Bioavailability
  - Aquatic inorganic
  - Separation science and technology

- **PHYSICAL SYSTEMS**
  - Hydrology
  - Global climate systems
  - Geochemical cycles
  - Paleoenvironmental analysis

- **ECOLOGICAL AND ENVIRONMENTAL SCIENCES**
  - Population growth
  - Community structure
  - Energy flow and efficiency
  - Niche and competition
  - Biodiversity, conservation, restoration, and invasion ecology
  - Environmental policy and ethics

- **METHODS OF NUMERICAL INTEGRATION**
  - Spatial information
  - Ordination
  - Logistic and risk analysis
  - Modeling techniques

2. Students will demonstrate familiarity with the relevant literature, and expertise in experimental design, in collection and analysis of data, and in interpretation of results in subject areas pertinent to the student’s dissertation research.

3. Students will progress toward entry into the scientific community through participation in professional activities, such as attendance at professional conferences, grantsmanship, publication of research findings, etc.
Assessment of Program Objectives

1. A preliminary exam is administered to each doctoral student, normally during the fourth semester of their program. The preliminary exam includes both written and oral portions and tests the student understanding of their dissertation topic.

2. The dissertation proposal must be completed and distributed to the student’s committee at least three-weeks prior to the beginning of the examination process. The written portion of the preliminary exam also includes responses to questions prepared by members of the student’s dissertation committee. Questions pertain to the background information required for a student’s focus of research. The oral portion of the exam tests the students understanding of the relevant scientific literature, experimental design, collection and analysis of data, and interpretation of results related to the dissertation proposal.

For 1 and 2 above, the grading scale, in descending order of performance, is: “thorough knowledge and understanding” [score of 5], “better than average” [score of 4], “average” [score of 3], “less than average” [score of 2], and “poor” [score of 1]. Proficiency is indicated in the preliminary examination process by subscores of at least “average.”

3. Admission to doctoral candidacy requires preparation, oral presentation, defense, and approval of a dissertation proposal. This proposal includes a thorough review of relevant literature, complete description of the experimental design, collection and analysis of data, and interpretation of results in the proposed dissertation project. Each faculty member of the examining committee records his/her evaluation of the proposal on the “Assessment Sheet for Ph.D. in EEES” [Appendix]. This proposal must be approved by the dissertation committee before dissertation research may formally begin (i.e., before the candidate may register for Dissertation, EEES 6V99).

Course Work

1. A minimum of 60 semester hours beyond the bachelor’s degree, including at least 30 hours of course work. At least 15 hours of this course work must be at the 5000/6000 level. Only 12 hours of course work at the 4000 level can be applied to the Ph.D. For 4000-level courses to apply toward graduate credit the courses must be listed in the Graduate Catalog and the student must do additional work beyond that required of undergraduates in that course. A maximum of 9 hours of Special Problems (5V90 from participating departments) can be applied to degree requirements. No course work at the 1000, 2000, or 3000 levels will count toward the Ph.D.

2. These 30 hours must include the following core of 12-16 hours: The following are acceptable courses to satisfy competency requirement for these foundational areas:
   a) Advanced Chemistry Foundation Course (3-4 course hours): CHE 4316 Instrumental Analysis, CHE 4341 Biochemistry, CHE 5314 Separation Science, ENV 5387 Environmental Chemistry, GEO 5320 Geochemistry, GEO 5321 Isotope Chemistry, ENV 5303 Environmental Chemical Analysis, ENV 4304 Aquatic Chemistry
   c) Physical Systems Foundation Course (3 course hours) – GEO 4346 Hydrology, GEO 4459 Engineering Geology, GEO 5340 Paleopedology, GEO 5342 Micromorphology of Soils and Paleosols GEO 5347 Advanced Hydrogeology, GEO 4373 Global Soil Systems
   e) Seminar Course (2 course hours) –Applicable seminar courses given each semester from EEES, Biology, Geology, Environmental Sciences, and/or Chemistry
3. The remaining 14-18 hours of required course work may be selected and assigned by the student’s dissertation committee. At least half these hours of course work must be at the 5000/6000 level.

4. At least 12 of the remaining 42 semester hours must be dissertation research (e.g. EEES 6V99) leading to an approved dissertation. A maximum of 30 semester hours of dissertation research are also required.

Courses Outside the Major Field

Courses used to complete the course requirements that are appropriate courses from other departments may be taken upon approval of the major advisor, the dissertation committee, and the departmental Graduate Program Director.

Residence Study

A minimum of 1 academic year of study must be undertaken in residence at Baylor.

Dissertation

An original research dissertation is required for the Ph.D. degree. A written proposal of the dissertation research must be presented to (and approved by) the student's advisory committee before dissertation research (i.e., registration for EEES 6V99) can begin. Each faculty member of the examining committee records his/her evaluation of the proposal on the “Assessment Sheet for Ph.D. in EEES” [Appendix].

Faculty Mentor and Dissertation Committee

In consultation with the departmental Graduate Program Director, the student will select one Fellow from TIE3S to serve as his/her faculty mentor. The identity of the mentor normally will have been determined during the application process. Recall that a required component of the application is a written mentor's statement from a TIE3S Fellow that he or she has agreed to direct your doctoral studies when you were accepted into the program.

The faculty mentor will oversee the student's program of study and the dissertation research. The student and the faculty mentor, with approval of the departmental Graduate Program Director, will appoint a dissertation committee for the student, consisting of at least four members of TIE3S Fellows and one non-TIE3S Fellow from the graduate faculty of Baylor University. This committee must be appointed no later than the end of the second semester of graduate work. The dissertation committee will be responsible for guiding the student in his/her academic work and for the evaluation of the preliminary oral examination and the dissertation defense. A meeting of the entire committee is required for the presentation of the dissertation proposal, the final defense, and at any time during the course of the program that the faculty mentor deems necessary to provide advice and guidance for the student. The committee is composed of four TIE3S Fellows and one outside member from the University’s approved graduate faculty. Note, no TIE3S Fellows may be considered as an outside committee member.

Teaching

All doctoral students should have a teaching experience under the mentorship of a faculty member. This is usually satisfied by serving as a teaching assistant in laboratories of one or more undergraduate classes. Advanced doctoral students are encouraged to seek opportunities to serve as instructor-of-record in related science department courses. Alternatively, this requirement may be satisfied by other college-level teaching experiences (e.g., instructor of record at community colleges). Students designated as instructor-of-record should complete the teaching training programs and courses offered through the Baylor Graduate School or a similar preparatory course on pedagogy. Participation in these teaching preparatory programs is added to the student’s permanent transcript.
All graduate students in EEES are expected to maintain a minimum GPA of 3.0 throughout their program. In accordance with Graduate School policy, any student whose Baylor graduate GPA falls below 3.0 will be placed on probation. The student must restore his/her GPA to 3.0 by the end of the next 9 credit hours of course work in order to remain in the graduate program. The student is not eligible to receive financial assistance from the University during the probationary semester(s).

Publication Requirement
Published work demonstrates a student’s capability of active contribution to their academic discipline. The peer-review process also provides an external review of the quality of the student’s research. All publications submitted for this requirement are from data collected for a student’s dissertation topic while in the EEES doctoral program. Prior to scheduling the dissertation defense, students must show evidence to the graduate program director of having authored a minimum of one original manuscript as first author that has been accepted for publication in a national or international journal. However, the publication requirement prior to defense is ultimately up to the faculty mentor based on his/her perception of the professional standards. Most students are encouraged to publish at least three papers from their dissertation prior to graduation. Students must be first author for all papers and may have several secondary authors. Papers that are considered accepted or in press must be documented through communications with the journal’s editorial staff. Publication requirements may vary with professors depending on the discipline, therefore students are strongly encouraged to discuss this early on in their program with their mentors.

Other Requirements
The department does not have a foreign language requirement for the Ph.D. degree. However, individual mentors and committees may require specific students to satisfy a language requirement or to demonstrate special research skills. For example, students are strongly encouraged to become competent in technological interface skills including computer programming, instrumentation, or analytical software such as SAS, Mathematika, MATLAB, or R. Students are also expected to attend as many departmental seminars as possible during their term of residence.

Mechanics of the Written Component of the Preliminary Exam
All graduate students must demonstrate that they are qualified to proceed to the PhD degree candidacy by passing both a written and an oral preliminary exam administered by the student’s dissertation committee. The goal of this process is to examine the student over the content areas appropriate to the student’s selected emphasis.

The timing of these exams is coordinate by the student and their mentor; however, the following are guidelines which should help expedient progress through the program. Students who enter in the program should pass the preliminary exam no later than their 3rd year. Students with a Masters degree should complete the exam by the end of their 2nd year. In addition, students are expected to complete the exam and proposal defense, a minimum of one year before expected graduation.

The written portion of the exam is organized by the preliminary examination chair (i.e. the student’s mentor) who will serve to organize the examination process. The preliminary exam committee is composed of the same members as the dissertation committee. The examination chair will first identify a timeframe which should last between one to three weeks in which questions will be submitted by committee members and answered by the student. The nature of the questions should suit the student’s individual research concentration as communicated by both the student and student’s mentor to the committee. Background, current philosophical, methodological, and theoretical information about the student’s research is relevant for testing. For the testing process, the committee is charged with certifying the student’s preparedness for approaching his or her research topic.

The test itself form will conform to the following:
• One to three hour closed book exam. Student should be given ample time for preparation
• One-two day exploratory essays that include access to reference material
• One eight hour written analysis of a relevant subject utilizing any resources needed
• One week composition that more completely examine areas of relevant information

The exam chair will be responsible for collecting questions from the examining committee, presenting this to the student with the appropriate instructions, collecting exam responses from the student, and distributing responses from the student to appropriate committee members. Ideally, exam questions should be evaluated by all committee members. Each question will be graded by faculty member who creates the question with 80% mastery expected for the entire exam. This maintains high standards for the program. All sections of an examination must be passed by the student for the written portion of the preliminary exam to be considered completed. Students who do not pass will be given a single opportunity to re-take the exam after 6 months. If the student does not pass the exam at that time, the student will be asked to leave the program.

It is important for the examination process to be considered both valid and reliable. Validity is based on information being tested which is a true test of the information that a student should know for accomplishing research in his or her area of interest. Reliability is derived from a consistent testing environment, such as utilizing the test forms (e.g. one-hour exam v. one-week exams) consistently between students. Members of examination committees’ should recognize the importance of these testing criteria and seek to maintain high quality testing events. Examination committee chairs are also charged with maintaining rigor and balance of the testing environment. If problems arise during the testing process, either during question formulation or evaluation, the committee chair will contact the graduate program director for guidance. Final arbiters of the testing process are the advisory board for TIE3S which will resolve through majority vote, any discrepancies that may arise. All committee members are asked to be good academic citizens and seek to do what is best for the student and the science he or she seeks to accomplish.

Dissertation Proposal
All students are expected to develop a dissertation proposal in consultation with their mentor with suggestions from their dissertation committee. The proposal size and content are generally variable for each student; however, the content should be comprehensive enough to convince committee members of the student’s preparation experience, background, and scientific rigor for performing stated research. Preparation of the proposal should being as soon as possible in the student program.

It is strongly recommended that the proposal should be structured similarly to research grant proposals, and that should include the following key topics:

1. Hypotheses to be tested and/or, research objectives or specific aims derived from your research hypothesis
2. Description of the key background information and preliminary results that serve as the basis for the hypotheses,
3. Designs of experiments to test the hypotheses, accomplish specific aims or objective, and a discussion of possible outcomes and interpretation of those outcomes.
4. A rationale for each experimental approach, possible problems, or alternative plans for the proposed research.
5. A timetable for completion.
6. Titles of manuscripts and expected journals in which to publish research from the dissertation.

Once the student has completed the proposal, the hardcopy should be distributed to all dissertation committee members at least one month prior to scheduling the preliminary exam. During this time, committee members may gauge the students preparedness for the exam based on the proposal. Each Dissertation Committee member will provide written comments and corrections on the proposal to the student within two weeks of receiving the proposal from the student. If there are serious concerns regarding the student, committee members will communicate these to the student’s mentor and EEES Graduate Program Director. A member may recommend the delay or postponement of preliminary exam if the committee member has serious concerns regarding the research capability of
the candidate such as plagiarism, writing ability, incomplete proposal, or inadequate or underdeveloped level of research or scientific thought. This recommendation should be addressed to student’s faculty mentor in writing. In consultation with the EEES Graduate Program Director, the faculty mentor will then notify the candidate and dissertation committee members of the recommendation and decision.

**Mechanics of the Oral Component of the Preliminary Exam**

Students that pass the written exam are qualified to move on the oral presentation, which is composed of both defense of their written exam questions and dissertation topic. Students and dissertation committee members should discuss and determine the schedule for oral exam before the completion of dissertation proposal. This portion of the preliminary exam either can occur before or after the written portion, however should normally be completed within 6 months of the written exam.

During the oral exam the student is expected to present a prepared short summary of the significance and rationale of the proposed experiments and anticipated outcomes (for 30 minutes recommended). S/he should respond to the written feedback from the Preliminary Committee. The presentation is accompanied and followed by questions from the Preliminary Committee, concerning such issues as the proposed research, alternative hypotheses, and projected outcomes. In preparation for the preliminary oral exam, the student is encouraged to discuss the written proposal and oral defense with colleagues.

**Assessment and Grading of the Preliminary Exam**

Each faculty member of the examining committee records his/her scores on the “Assessment Sheet for Ph.D. in EEES” [Appendix]. Following the oral component of the Preliminary Exam, the committee will vote on the performance of the student. The exam is meant as a single event, and all portions of the exam are to be considered when the members vote. The vote will be either pass or fail, and a simple majority is all that is needed to pass the exam. If a student does not pass the exam, a second exam may be taken the following semester. A third exam is not allowed, i.e., a second failure results in dismissal of the student from the program.

**Seminar Requirement**

Each student in the Ph.D. program must present an exit seminar to faculty members on his/her dissertation research. The seminar must be presented prior to the dissertation defense.

**Final Examination (Dissertation Defense)**

After completion of a doctoral dissertation, the candidate has a final oral examination involving presentation and defense of the dissertation. All TIE\(^3\)S Fellows are invited to attend. The TIE\(^3\)S Fellows must be notified of the examination date, time, and place at least 2 weeks prior to the examination. The examination is conducted by the Examination Committee, and other faculty may participate at the invitation of the committee. The oral examination will last approximately 2 hours. At the end of the oral examination, the Examination Committee will assign a grade of "pass" or "not pass", based upon a majority vote of the Examination Committee.

**Scheduling of Final Exam (Dissertation Defense)**

1. In consultation with the dissertation director and committee, the student arranges the date and location of the examination with the Graduate Program Director and secures approval from the Dean of the Graduate School; submit **Announcement of Doctoral Oral Exam** form to the Graduate School at least 10 working days before the event. The forms can be downloaded from the Graduate School website: [http://www.baylor.edu/graduate/index.php?id=2858](http://www.baylor.edu/graduate/index.php?id=2858)

2. The candidate also posts the **Announcement of Doctoral Oral Examination** form in the TIE\(^3\)S Office. The examination may not be taken sooner than 1 week (5 working days) after submission of the committee-approved dissertation to TIE\(^3\)S. The candidate is responsible for adhering to the official deadlines of the Graduate School and the EEES calendar for that particular semester. See the
calendars posted on the Graduate School website:  
http://www.baylor.edu/graduate/index.php?id=2863

3. All oral exams must be held on regular class days between the first and last days of class (inclusive) of the semester. No exams may be scheduled on final-exam days or on “study days” or during interims between semesters.

4. All oral exams must be scheduled between 8AM and 5PM such that at least 2 hours are available for the exam (excluding the preceding seminar).

**Oral Examination Committee**

1. Composition of the Oral Examination Committee generally consists of the following: the Dissertation Committee, the Graduate Program Director (or a designated member of the Graduate Committee), and a University Graduate Faculty Representative appointed by the Dean of the Graduate School. Additional members may be appointed to the Examination Committee by the dissertation director in consultation with the Graduate Program Director.

   Attendance at the seminar presented prior to the oral examination is open to the public. All TIE²S Fellows are encouraged to participate in each examination. The Examination Committee and the candidate may invite students to attend the exam.

2. The Dean of the Graduate School is invited to attend each oral examination.

3. If a member of the Dissertation Committee cannot be present, the other members of the Dissertation Committee (in consultation with the Graduate Program Director, if possible) shall appoint a replacement for the absent member. At least two members of the original Dissertation Committee, including the student’s faculty mentor, must be present.

4. Members of the Dissertation Committee and others participating in the examination of a Ph.D. candidate should read the dissertation thoroughly prior to the examination.

**Voting**

1. All members of the Dissertation Committee shall vote on the proficiency of the candidate. Faculty members who participated in the exam, but who are not official members of the Dissertation Committee, are invited to discuss the candidate’s performance, but are not eligible to vote.

2. A two-thirds affirmative vote is required for passing.

3. If a candidate fails the oral examination, the Dissertation Committee will discuss with the candidate the basis for the decision.
GENERAL REGULATIONS and POLICIES

1. All courses taken by the student must be approved by the student's major professor in consultation with the Graduate Program Director. Suitability of courses for credit in the student's program depends on the level of the course (i.e., 4000-level vs. non-4000 level undergraduate courses, undergraduate vs. graduate level) and its relevance to the student's program. The Graduate Program Director, in consultation with the student's major professor, may decline to use tuition remission funds to pay for courses that are not so approved. Additionally, courses not related closely to the objectives EEES graduate program also may not be approved for credit toward the graduate degree.

2. Core courses should be taken during the first year of study.

3. When selecting courses for next semester or when adjusting your schedule for the current semester, be sure to consult with your dissertation mentor. The Graduate Program Director is another valuable resource in matters related to course selection, registration, etc. Upon completion of registration and any subsequent schedule changes, the student must provide a copy of the printed class schedule to the Administrative Assistant for TIE3S. This copy of your official class schedule is essential for the Graduate Program Director to allocate appropriate tuition scholarship funds to you.

4. The graduate student is expected to maintain a minimum graduate GPA of 3.0 (B) throughout his/her program. Any student failing to maintain this average will be placed on probation; notification of such is by letter from the Graduate Dean. The graduate GPA must be restored to 3.0 during the next 9 hours of coursework in order to remain in the graduate program and regain non-probationary status. The student may not receive financial support (i.e., graduate assistantship or tuition scholarship) from the University while on probation.

5. Continuous enrollment during a graduate career is not required, though enrollment is required during any semester when the student is taking courses or is in residence (i.e., using university facilities and faculty resources) for the purpose of conducting research or writing. Enrollment is required during the semester of graduation. During a semester when a student is not enrolled, he/she is not eligible for a teaching or research stipend or for tuition remission. Additionally, a student may not maintain an office during a semester when he/she is not enrolled.

6. Computing resources are generally available in various student labs across campus. Graduate students are generally granted access to computers in the labs of their major professor.

7. The TIE3S office is open and available to graduate students from 8AM until 5PM on business days. Access to this office is not authorized at other times.

8. Use of TIE3S letterhead is restricted to purposes of official university business, such as corresponding with researchers at other institutions, applying for grant support, applying for admission into other academic programs, etc. No one is authorized use of the Institute’s letterhead for making political statements or statements of position; these could be misconstrued as University policy. No student is authorized to use the Institute’s letterhead to request complimentary copies of textbooks; professors may assist in obtaining these.

9. Use of postage, like other departmental resources, is restricted to official University business. The major mentor is always a good source of advice and information on this and many other matters.

10. Each graduate student is assigned a mail slot in the Institute’s office (C.409). This mail slot is one of the places where memoranda, phone messages, and other official and important communications will be placed. It is important to check your mail slot at least once each business day. Failing to check the slot at regularly may well result in missing an opportunity, such as stipend or tuition support, a seminar announced at the last minute, etc.
11. Each graduate student will have an official (i.e., first_last@baylor.edu) electronic mail account. This has become the predominant means of official communication between the Graduate Program Director and graduate students. You will need to check your e-mail account several times daily.

12. Graduate students are expected to attend regularly scheduled seminars as scheduled by the Institute. Because of our interdisciplinary focus, seminars may schedule in a variety of departments. No matter what the topic or how well the seminar is presented, you will surely learn something of value by participating. Please view these seminars as part of your graduate educational experience.

**FINANCIAL SUPPORT**

**Application for Graduate Assistantships**

A student who is admitted to regular membership in the EEES graduate program may apply for a graduate assistantship by so notifying, in writing, the Graduate Program Director. Generally, teaching assistantships are the only type of graduate assistantships through the departmental graduate budget. Assistantships are awarded to qualified applicants with preference given to those students working toward the Ph.D. degree, although many additional criteria (e.g., GPA, GRE scores, meaningful progress toward the degree) are considered.

**Stipend and Tuition Remission**

1. Award of stipend support after the first year in the program will be contingent on quality of work performance and on progress made toward the chosen degree. Funding for doctoral students is potentially available for up to 5 years. However, doctoral students and their mentors should strive to obtain external funds for research assistantships for the student’s third and subsequent years. After a student has earned the minimum number of hours required to satisfy degree requirements, generally no further stipend support will be provided.

2. Generally, a maximum of 18 - 20 semester hours of tuition scholarship will be allowed per 12-month academic year (Summer through Spring semesters). Award of tuition scholarships after the first year in the program will be contingent on progress made toward the degree. After a student has earned the minimum number of hours required to satisfy degree requirements, generally no further tuition scholarships will be provided.

**Assignment of Graduate-Student Teaching Duties**

The intent of assignment of graduate student teaching duties is to provide a strong educational experience for undergraduate students in the supported courses, as well as to provide on-the-job education (in both content and pedagogy) for the teaching assistants. Undergraduate courses with large enrollments generally receive highest priority in staffing with graduate assistants. When possible, graduate assistants will be assigned to courses in which they have prior academic education.

Preferences of faculty and graduate students for particular students and courses will be honored when it is feasible.

**Responsibilities of Graduate Assistants**

1. In accepting the appointment as a graduate assistant in TIE$^3$S, the student becomes an integral part of the Institute’s instructional personnel. As such, he/she is obligated to support the standards and policies of the department and the University. His/her attitude, appearance, and conduct are expected to be of the highest professional level. Because of the Institute’s unique association with the Department’s of Biology, Geology, Environmental Science, Chemistry & Biochemistry, a student may be assigned a teaching position in these departments depending on experience and education.

2. Approximately 15 clock-hours of work per week are required for the full assistantship. This may include required lecture attendance and prep sessions, and grading. If a teaching assignment does not require 15 hours, the graduate assistant will devote the remaining hours to support of his/her major professor's research program.

3. The responsibilities of the graduate assistant may include:
a. Assuming the responsibility, under the direction of the responsible faculty member, for the highest quality laboratory experience for the student.

b. Supervising of undergraduate assistants.

c. Meeting weekly planning and education sessions with the responsible faculty member and undergraduate assistants.

d. Assuming responsibility for having all necessary equipment and supplies in place prior to the laboratory period and for cleaning the laboratory and equipment and returning these materials to storage when the laboratory is concluded.

e. Maintaining records of student attendance and equipment breakage and submitting these to the responsible faculty member. Assuming responsibility for maintaining animal-bite or other injury records and informing the appropriate faculty member.

f. Assisting in preparation, administration, and grading of tests.

g. Attending course lectures and assisting in roll-taking.

h. Exhibiting an interest in the academic progress of their students by reporting low grades, lack of interest, etc., to the responsible faculty member.

i. Aiding in other general academic duties such as administration of departmental examinations, etc.

**Evaluation**

Graduate assistants will be evaluated each semester. Generally, the Institute for Research and Testing will provide forms for each student to be given to their classes. These will be returned to the department in which the student is teaching for his/her inspection. Students TA’s must seek the highest level of professional service to maintain stipend and tuition support.
APPENDIX of ASSORTED FORMS

The following forms are available at the Graduate School website:
http://www.baylor.edu/graduate/index.php?id=46691

**Forms Available For Download:** *(Adobe Acrobat required)*

<table>
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<tr>
<th>Form</th>
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<tr>
<td>Result of Preliminary Examination</td>
<td>Download</td>
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<tr>
<td>Record for Candidacy for Doctoral Degree</td>
<td>Download</td>
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<tr>
<td>Announcement of Doctoral Oral Examination</td>
<td>Download</td>
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<tr>
<td>Result of Doctoral Oral Examination</td>
<td>Download</td>
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<tr>
<td>Doctoral Investment Form</td>
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<tr>
<td>Approval of Final Dissertation/Thesis Copy</td>
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<td>Graduate School Petition</td>
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</table>
### FOUR-YEAR PLAN--DOCTORAL STUDENTS

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
<th>Credit Hours</th>
<th>Total hours this semester</th>
<th>Cumulative Hours</th>
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<tbody>
<tr>
<td>Year 1, Fall</td>
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<td>Year 1, Spring</td>
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<tr>
<td>Year 2, Summer (full)</td>
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<td>Year 3, Summer (full)</td>
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Notes:
--This schedule pertains for doctoral students not already having a master’s degree. Finishing in 4 years is desirable, although the nature of the dissertation project will be a significant factor in determining whether more than 4 years will be needed to complete degree requirements.

--Doctoral students with a master’s degree can/should accelerate this schedule.
In accordance with policies adopted by the TIE³S Fellows, graduate students pursuing the Ph.D. program must have prepared a dissertation proposal that has been approved by all members of the student’s dissertation committee before he/she is allowed to register for hours of dissertation research (EEES 6V99).

Approval of the proposal by the student’s full committee is indicated by presence of their signatures on the appropriate blanks below. Once all signatures are obtained, the student should attach this form to a copy of the proposal, and then deliver these to the departmental Graduate Program Director. Thereafter, the student will be allowed to register for thesis research hours.

Name of graduate student: ________________________________

Title of dissertation: ________________________________

__________________________________________________

__________________________________________________

Names, Departments, and Signatures

Dissertation advisor: ________________________________

Additional TIE³S Fellows member: ________________________________

Additional TIE³S Fellows member: ________________________________

Additional TIE³S Fellows member: ________________________________

Outside of TIE³S member: ________________________________

Date submitted to Graduate Program Director: ____________________
ASSESSMENT OF PRELIMINARY EXAM AND DISSERTATION PROPOSAL
PH.D. IN EEES
TIE³S, Baylor University

Student Name: ____________________________
Degree: Ph.D. in EEES
Faculty Mentor: ____________________________
Date of oral exam: ________________

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<tr>
<th>Area</th>
<th>Preliminary Exam: Written</th>
<th>Preliminary Exam: Oral</th>
<th>Preliminary Exam: Overall</th>
<th>Dissertation Proposal</th>
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<td>NA</td>
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<td>Physical Systems</td>
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<td>Collection and Analysis of Data</td>
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<td>Interpretation of Results</td>
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<tr>
<td>Effectiveness of Writing, Presentation</td>
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Summary Scores

The scores above represent my assessment of this student’s performance on the doctoral preliminary exam and dissertation proposal.

Signature of assessing Fellow: ________________ Date: ________________

Grading Scale: