Environmental Science and Engineering Student Handbook

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1.0 The Challenge

In order to complete the Ph.D Program a student must meet a variety of challenges:

- find a place to live in El Paso
- find a research advisor
- find a source of funding
- pass the Qualifying Examination
- pass all necessary course work
- pass the Comprehensive Examination and Dissertation Proposal Defense
- perform research
- write and defend the Dissertation
- publish research results

This document is intended to serve as an informal guide to assist with the process.

2.0 Classes

Formal classes are a portion of any education, but are less important at the Ph.D. level. Few Ph.D. candidates fail to progress for lack of course work completion.

Specific course requirements for each student will be determined by the student’s Doctoral Advisory Committee; however, each student must complete at least 60 semester hours beyond the Masters degree. At least 30 semester hours will be organized course work, which must include certain ESE core courses, including ESE 6306 - Principles of Experimental and Engineering Design and ESE 6307- Interdisciplinary Environmental Problem Solving. The balance of the required 30 semester hours of organized course work will be fulfilled by a selection of elective courses. The elective courses can include any graduate level classes approved by the student’s committee. Enrollment of the candidate in research and dissertation courses will complete the remainder of the 60 semester hours.

Prior to taking ESE core courses, all students are generally expected to have had the equivalent of basic courses in biology, chemistry, physical geology, and calculus, including differential equations.
All full time students are required to enroll in ESE 6107 during the fall and spring semesters. All students must complete a minimum of 2 hours of ESE 6107. A maximum of 6 hours of ESE 6107 will count towards fulfilling the requirements of the degree.

2.1 Semester Hour Requirements

Foundation / Leveling Courses as needed
ESE Core Courses 18
Environmental Project (ESE 6306 & 6307) 6
Elective Courses* 6-12
Research 18-24
Dissertation 6

* May include 6 hours of ESE 6107 and additional ESE core courses, if approved by the student’s Doctoral Advisory Committee.

2.1.1 ESE Core and Required Courses

The ESE Core consists of ESE 6301, ESE 6303, and ESE 6402, 6404, and 6405. Required course work includes ESE 6306 and 6307, as well as enrollments in ESE 6107. ESE 6398 and ESE 6399 must also be completed for the degree.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ESE 6107</td>
<td>Graduate Seminar</td>
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<tr>
<td>ESE 6301</td>
<td>Environmental Law and Policy</td>
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<tr>
<td>ESE 6303</td>
<td>Transport, Fate, and Treatment of Contaminants in the Environment</td>
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<tr>
<td>ESE 6306</td>
<td>Principles of Experimental and Engineering Design</td>
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<tr>
<td>ESE 6307</td>
<td>Interdisciplinary Environmental Problem Solving</td>
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<td>ESE 6402</td>
<td>Environmental Chemistry</td>
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<td>ESE 6404</td>
<td>Environmental Biology</td>
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<td>ESE 6405</td>
<td>Environmental Geoscience</td>
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<td>ESE 6396</td>
<td>Doctoral Research</td>
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<td>ESE 6398</td>
<td>Dissertation</td>
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<tr>
<td>ESE 6399</td>
<td>Dissertation</td>
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Electives include any graduate level classes approved by the committee.

3.0 Choosing an Advisor and Committee

Beginning graduate students must make one of the most important choices of their careers, choosing an advisor and research topic, at a time when they are most lacking the knowledge to choose well. The advisor must be chosen during the first two semesters at UTEP. You can choose any ESE faculty member who is willing to take you as a student. Choose carefully, it is one of the most important decisions you will make.
It is often easier to appreciate the importance of timely progress than the importance of a research advisor. Consider, however, that you will begin your research career as an apprentice to an advisor who ideally will provide timely, constructive feedback regarding your attempts to do original work, and who will probably also provide various resources like space, equipment, supplies, an assistantship, and summer employment. Once you have finished your degree, you will want your advisor to write letters of recommendation and introduce you to potential employers. Given the importance of this individual, it's worth a few minutes to consider what kind of person you'd like your major advisor to be.

### 3.1 Whom to look for

**Someone with similar interests.** Seek someone with whom you share research interests; otherwise, you may undertake a project that you do not value and never complete. If this is not possible, choose

**Someone with compatible interests.** If you cannot work with the research group whose research goals are most similar to your own, you may nonetheless learn a great deal working with another group. It is quite possible, of course, that as you work in the laboratory of “second choice” you may become interested in a new research problem.

**Renowned researchers.** Seek people who love their research. They will document their work in articles, published in respected journals, that often describe a series of interlocking experiments concerned with a single problem. When researchers value their work and others agree, others will extend the work. Invited articles and presentations to professional societies suggest that a researcher's work is well-received.

**Beginning researchers.** New faculty often make excellent advisors. In the absence of substantial grant funding or a lengthy publication list, look for someone who has an active and growing research program.

**Someone you can respect.** Choosing or keeping an advisor primarily because he or she is nice is a mistake. Sometimes nice people withhold frank evaluations of your knowledge, skills, and progress to avoid hurting your feelings. If you have an excellent advisor, your feelings toward your advisor might best be labeled as respect.

### 3.2 Whom to avoid

Do not equate grant support or the size of an institute or research laboratory with quality. Not all research is expensive. Don't eliminate an advisor based solely on his or her grant support. Seek an advisor who knows quite a bit about your area, is enthusiastic about research, has a good publication record, and, of course, seems willing to offer help.

If your advisor of choice is someone who has many other professional responsibilities (being an officer in a professional society, the departmental chair, someone with too many students, or editor of more than one journal), verify to your own satisfaction that this faculty member will have adequate time to work with you. Professional service activities are important and contribute to others doing science, but they can substantially reduce
supervision quality, unless you are only one of a few advisees. If you think this might be a potential problem with your prospective advisor, ask him or her about it.

3.3 Acquiring information about potential advisors

Corresponding with a few potential advisors can be very helpful, after you are familiar with their work. In your initial contact be sure to describe your background, training, grade point average, research experience, and your interest in the researcher's work. Write carefully; writing is public thinking. Ask for recent reprints and copies of manuscripts in press. You might also casually mention your interest in where this potential advisor studied and a list of his or her publications. Potential advisors may send you their vitae, saving you much homework.

If you have waited until your arrival at UTEP to begin correspondence with potential advisors then you should plan to meet individually with all of the faculty in your area(s) of interest. Be sure to flatter them by talking about their background and publications. Ask if they have any current or pending grants that might fund your work. Demonstrate, through your performance, that you are: hard working, responsible, and capable. Mentoring graduate students takes a tremendous amount of work and faculty members want students who will further their research goals.

Ask some senior graduate students about the laboratory and the graduate program. Ask them how much time is typically required to earn the Ph.D. under his or her supervision, and whether graduates continue working in the area upon graduation. For researchers who are assistant professors, ask about their chances of being granted tenure. It is unwise to commit yourself to a person who will not be re-hired in a few years and may leave you stranded.

Interviewing potential advisors may be scary; but you must develop strong, positive, self-presentation skills if you are to succeed.

3.4 Problems with adviser

The advisor-graduate student relationship is much like a marriage. It is important, for example, to consider carefully whether there is a good match between your personalities, and the expected pace of work. Not all marriages work. Accordingly, you always have the right to change advisors. Once you have started a research project, however, no other professor may feel qualified to supervise your work. Other professors may also be hesitant to offend the previous adviser.

Student and advisor relationships break down for a variety of reasons. The most common faculty complaint is that the student lacks motivation, initiative, and discipline. Faculty work very hard to find student funding and quickly become frustrated with students who are perceived to have more excuses (classes, family problems, multiple jobs, etc.) than research progress. Students frequently complain that the adviser does not provide enough time and guidance.
Changing advisors is a delicate matter, particularly if your advisor has invested much time and/or money in your education. When considering changing advisors, talk to your advisor first. Perhaps working conditions or your relationship can be changed. If you do change advisors, it is courteous to give your advisor adequate time, perhaps a month or two if research is in progress, to plan for the change. Remember, just as some divorced couples remarry there is always the possibility that you might want to work with your original advisor, so follow the ``golden rule.”

If you believe your advisor is unethical then you should definitely find another one. If some serious instance of your advisor behaving inappropriately is discovered, for example, fraudulent treatment of data, your reputation will suffer too.

### 3.5 Selecting a Committee

Choosing a committee is similar to choosing an advisor. Generally you should work with your adviser to pick faculty members with expertise in your area. The committee consists of 4 or more members including the adviser. The ESE Program requires that at least one member of you committee be from the College of Science and one from the College of Engineering. The fourth member should be selected from industry and does not have to have a terminal degree.

### 4.0 Selecting a research project

*Replication and extension of a professor’s work.* Pavlov’s laboratory is the best illustration of the replication and extension approach. As a new student, you would have replicated the last dissertation conducted there. This tested your ability to follow a write-up, and motivated Pavlov’s senior students to work most carefully. Your dissertation would have been some logical extension of this preliminary work. You neither had to survey the entire research literature nor wonder if the equipment could be constructed. The work had just been completed in your laboratory. Consequently, the duration and other costs of new research could be estimated well.

If you are not specifically interested in extending what your advisor is doing, you can search journals and attend conferences to locate an open problem that is important to you and other researchers. A portion of your research can be a fairly literal replication of a recently published work, whereas the remainder can be an extension that contributes to the solution of the problem.

Replication and extension work is the most conservative. It is most likely to assure timely graduation with publications.

*New directions.* Sometimes professors may want to move into new areas of research. This can be because of wide or changing interests, or perhaps related to availability of funding. Research in new directions can be very rewarding but it also has additional demands and risks. The literature review must be performed thoroughly. One of our greatest difficulties
is that students fail to perform adequate literature reviews prior to proceeding with the work.

*Student defined.* Many times the student may have an idea for a research project that is not directly in the research sphere of any of the professors. Often the student wishes to continue research in the same area as the MS degree research. This is a difficult situation. The student must take a much greater responsibility for literature review, experimental planning, and funding.

### 5.0 What is the Qualifying Examination?

The Qualifying Examination consists of passing a multiple choice examination covering the textbook: Environmental Science: Earth as a Living Planet by Botkin and Keller (ISBN: 0-471-38914-5). The requirement begins with students entering the Spring of 2003. All prior students are grandfathered and may either use the current examination or the new one. The Qualifying Examination will be offered every semester and must be passed during the first year in the program. The student may take the exam a maximum of two times. Students entering the program prior to the spring semester of 2003 have the right to take the new qualifying examination rather than the current exam. This might be desirable if the student preferred not to take one of the classes in the current qualifying examination.

### 6.0 What is expected for the Dissertation Proposal and Comprehensive Examination?

Doctoral candidates within the ESE program are expected to select an advisor and identify a dissertation research topic not later than the end of their second semester in the program. Once a candidate has selected an ESE faculty member to serve as a candidate’s advisor, and the faculty member has agreed to do so, the candidate may enroll for Doctoral Research, (ESE 6396).

When a doctoral candidate is prepared to formally seek approval of his or her research subject, the candidate must form a committee composed of three or more members of the ESE faculty and at least one member from outside of the ESE faculty. Generally, the candidate’s advisor will act as the committee chair. It is strongly encouraged that the outside member be a business person, not an academic. Outside members should either hold doctorates or otherwise have extensive knowledge in the relevant subject area and sufficient experience in research methods to enable them to evaluate the candidate’s proposed research.

Doctoral candidates are expected to formally submit their research proposals for approval not later than the end of their third semester in the program. Research proposals must be written in English, typed in a 12 point font, and printed on 8.5 inch by 11 inch sized paper with one inch margins. Following are the content and format requirements for a research proposal:
Cover page: The cover page shall identify the document as a Dissertation Proposal in a bold font. Other required information consists of the name of the university, the name of the program, the title of the research, the name of the candidate, the names of the proposed committee members identifying one of them as the committee chair, and the date the proposal is to be formally submitted.

Abstract: An abstract of the proposal shall appear on the first page. The abstract shall be printed single-space, have fewer than 500 words and not exceed one page in length. Generally, the candidate should write the abstract last, as the abstract should provide, in a single paragraph, a synopsis of all major elements of the proposal. Copies of the abstract will be distributed to all ESE faculty members for their review prior to the proposal defense. Any ESE faculty member may request a full copy of the proposal.

Table of Contents: All pages following the table of contents should be numbered. Proposal elements must follow the required format sequence, and the table of contents should identify the page number of each element of the proposal.

Problem Statement: Beginning with the problem statement, every narrative element of the research proposal should be printed double-space. The problem statement shall provide basic background information, state the general topic to be investigated, and make a compelling case for the relevance of the research. Research topics must represent an original investigation of a significant problem in environmental science and engineering. Generally, research topic should embody a cross-disciplinary perspective and should focus on problems that face the U.S.-Mexico border region or similar settings. The problem statement should be no more than 750 words, or approximately three (3), double-spaced typewritten pages.

Literature Review: A bibliographic listing must be provided of all research relevant to a candidate’s proposed study. The documents cited should demonstrate that the candidate has made a comprehensive review of all pertinent literature. Candidates are expected to be conversant on all references they choose to cite. The form of presentation of bibliographic listings should be consistent with the Graduate Schools standards for published dissertations. Each entry should be followed by a brief, three- to five-sentence, description of the relevance of the citation. No page limitation is imposed for this section of the proposal, however, the general expectation is that three or more pages of citations will be provided.

Research Questions: The principal research question(s) should be explicitly stated and expressed in a testable manner. Often a research question will have sub-components; these should be elaborated. However, because the research questions portion of the proposal should be concise and tightly worded, the research questions and accompanying narrative should not exceed 250 words.

Hypothesis: The researcher’s hypotheses should be clearly stated, and should appear in bold either within the body of the research questions narrative or immediately following it.

Research Design: The largest portion of a research proposal should be the research design section. The proposed research should be thoroughly described and reasonable in
scope. For each portion of the research design, the anticipated outcome should be stated in a manner that clearly demonstrates its relationship to the researcher’s hypothesis. The research design should be sufficiently detailed to permit a meaningful critique by the candidate’s committee. Research techniques may need to be modified during the course of a study, but any major deviations from an approved research proposal are subject to the review and approval of the candidate’s committee. If specialized laboratory equipment is to be used, it must be so stated. If statistical analyses of results are required, the specific means of analysis should be identified. If data samples are to be acquired, the sample size and, if appropriate, means of randomizing sample selection must be stated. If experiments are to be performed, the research design should state the step-by-step process that will be followed. If data has already be acquired and analyzed, this should be so stated and the results summarized. If tables or other data are used to present preliminary findings, they should be included only if they are both germane to the research proposal and necessary for the reviewers understanding. The research design section may be up to 2,000 words in length, or eight (8) double-spaced typewritten pages.

**Preliminary Research Schedule:** A schedule should be provided demonstrating that the research will be pursued aggressively and completed promptly. Generally, research schedules should be presented in graphic form as timelines. The research schedule should parallel the sequence of tasks described in the research design narrative. At critical junctures, review meetings with committee members should be indicated on the schedule. (Note: Such in-progress review does not require the committee to meet as a whole; rather, the expectation is that a researcher will keep the members of his or her committee informed as the research progresses.) If peer-reviewed publications are anticipated during the course of the research, the times during which such articles will be submitted for publication should be indicated. The preliminary research schedule should not exceed one page in length.

**Skills and Preparation of the Researcher:** Candidates must provide a description of their professional experience and academic studies that have prepared them for their proposed research. This may be provided in the form of a curriculum vitae. This section is not to exceed 500 words or two (2) typewritten pages.

**Financial Support and Facilities Available:** If outside financial assistance is required, the proposed sources of such funding should be identified. In such instances, a detailed budget should be provided that includes proposed research stipends, anticipated travel expenses, costs for the purchase of data sets, and any subcontracted work. If grant funding is to be sought, the name of the funding program, deadline for application submittal and schedule for receipt of notification of award should be noted. If outside financial support has already been obtained, evidence of such award of funds should be provided and the name of the grant projects Principal Investigator should be indicated. Any time research grant funding is used, the grant project’s Principal Investigator should be a member of the candidate’s committee.

**Appendices:** Attached to the research proposal should be all paperwork required by the Graduate School. This includes copies of both the candidate’s Preliminary Program of Study and Final Program of Study and Application for Candidacy, (though the latter...
document may not be signed until the candidate is in his or her last semester of studies). As appropriate, letters of support should be provided indicating access to computer hardware, specialized software, other necessary research equipment and facilities, and access to data or locations where data is to be acquired. Note: It is the candidate’s responsibility to obtain access and permission to use any existing data that is to be used in the proposed research.

Once a candidate has assembled the material required for a dissertation proposal, the candidate shall submit electronic copies of both the abstract and complete proposal to the ESE Program Coordinator.

The ESE Program Coordinator will forward copies of the full proposal to the candidate’s committee members, and copies of the abstract will be forwarded to all ESE faculty members. A minimum of two weeks will be provided for the review of the material prior to scheduling a Proposal Defense. During that two-week review period, any ESE faculty member can request a full copy of the proposal. ESE faculty other than the proposed committee members may raise questions or challenge any aspect of the research proposal. All such issues must be directed in writing through the ESE Program Director. Copies of such written questions or objections will be provided to all prospective committee members prior to the Proposal Defense.

### 6.1 Proposal Defense and Comprehensive Examination

A meeting of the candidate’s committee for the Proposal Defense may be held a short time after the mandatory two-week review period. (Note: the two week review period is exclusive of any holidays including breaks between semesters.) It shall be the candidate’s responsibility to negotiate with the proposed committee members for a suitable meeting time. The candidate’s committee chair should assist in securing a suitable venue for the meeting. All Proposal Defense meetings must be held on campus on a weekday between the hours of 8:00 a.m. and 5:00 p.m. The ESE Program Director or his or her designee may, at the Director’s sole discretion, attend the Proposal Defense as an *ex officio* member.

During the Proposal Defense and Examination, the candidate will make an oral presentation of the research proposal. Generally, the oral presentation should not last longer than thirty (30) minutes.

Once the candidate’s oral presentation is concluded, the committee members may question any aspect of the proposal, including the student’s academic preparation for the research in question.

At the conclusion of the discussion, the committee may approve the proposal as submitted, condition approval on modifications to the proposal, or reject the proposal. If modifications are required, the candidate shall make the necessary modifications before seeking signatures of the committee members.
Additionally each professor will ask the candidate a series of questions in either written or oral format to ascertain the breadth and depth of the candidate’s understanding of the proposed research area and fundamental concepts in Environmental Science and Engineering. Depending upon the results of the comprehensive examination the committee may require additional course work and/or a retaking of the examination.

Once the proposal is in a form deemed acceptable to the committee, the candidate and committee members shall each sign the Final Program and Studies and Application for Candidacy, which shall be submitted to the ESE Program Coordinator. The ESE Program Coordinator will formally submit the original signed document to the Graduate School, and retain a photocopy of the form and proposal in the Program records.

Approval and filing of the Final Program of Studies and Application for Candidacy shall constitute the equivalent of a contract between the candidate and the University. Successful completion of the research and documenting the same in a dissertation meeting the format requirements of the Graduate School shall be the basis of completion of the candidate’s degree. However, determination that the candidate’s research has fulfilled the expectations of the research proposal shall be at the sole discretion of the committee members.

7.0 What is expected for a dissertation?

A Ph.D. degree is awarded primarily for research accomplishment. On obtaining a Ph.D. the student should demonstrate the ability to perform independent research.

Generally faculty will not approve a dissertation unless they feel the material is ready for publication in a high quality peer reviewed journal. We strongly encourage students to publish prior to the defense.

The format of the dissertation can be either a classical treatise or a compendium of papers with each chapter representing a peer reviewed publication.

Most people will expect Ph.D. graduates to have one or more publications in refereed journals. Publication should be one of the major goals of your research work.

7.1 The All But Dissertation (ABD) syndrome

Psychologist Joan Rodman reasons that because Ph.D. candidates are carefully selected, highly trained students, some other factor must contribute to the fact that 50% of Ph.D. candidates do not finish their dissertations. After interviewing hundreds of clients, she suggests that unrecognized psychological barriers hinder completion.

Comparing quick finishers to those who finished only slowly or not at all, Rodman found that quick finishers:

- generally suffered as much anxiety as slow finishers
• coped by developing close professional relationships with their advisors
• worked productively even when feeling anxious
• could tolerate imperfection
• almost all were married

At the other extreme, Rodman found that “ABDs” (all but dissertations):
• had few or no relationships with others
• gave help but did not seek help because doing so made them feel vulnerable
• had unresolved issues in their lives that popped up when nearing the end of a significantly stable, or at least well-known, part of their lives

Rodman noted that dissertations in the hard sciences took less time than in other fields because students often share laboratory space (peer support), and collaborate with professors on projects that form their dissertation.

Rodman offers this advice for the despairing writer:
• Don't insist on writing sequentially AND rationally at the same time; it is easier to organize and polish rough thoughts.
• Remember that the task is finite. A 150-page dissertation can be completed within one year if you write one page every other day.
• Avoid people who keep asking you how your dissertation is coming, but remember that an unfinished dissertation is like being pregnant for life.

8.0 Timing

Financial aid coming from the program will be dependent upon timely meeting of program deadlines. If you have not met the deadlines given below, you should not expect to receive continued funding.

The core courses should all be completed within the first two years of graduate study.

The qualifying examination should be completed during the first year of study.

A committee should be chosen in the second or third semester of attendance.

The dissertation proposal and preliminary examination should be completed during the third semester and definitely prior to the time the fourth semester has ended. The dissertation proposal must precede significant work in the dissertation topic. This is a proposal, not a near final result.

Students should not assume that teaching assistantship funding will be available for more than 4 semesters. Funding priority will be given to students who are most clearly on track for graduation and who have received the least amount of support in the past.
9.0 Responsibilities of Students and Faculty

9.1 Students:

Interviews with faculty members indicate that the primary difficulty they have with students is a perceived lack of motivation and work ethic. A Ph.D. student should demonstrate that he or she is ready and capable of performing independent research. Independent research requires self motivation and discipline. Too many students wait to be told exactly what to do and seem to view graduate student funding like a job at the local 7/11 or Circle K gasoline station. If you are always waiting to be told what to do and/or only work when the boss is watching; perhaps you are not ready for Ph.D. level work?

A student must demonstrate the ability to perform independent research. This demonstration may take any length of time. A Ph.D. student is typically put in charge of a research project. You may be expected to manage other students (MS and undergraduate), complete the literature review, assist with the experimental plan, and manage equipment and supplies.

Understand that it is the student’s responsibility to see that his/her research project is completed, experimental and analysis plans are correct, and progress is being made. Remember that the Ph.D. degree is awarded for demonstrated ability to perform independent research. Ph.D. degrees are not awarded for time spent on a project or the ability to follow directions.

Take the initiative to arrange meetings with the faculty advisor as often as necessary and to keep the advisor informed of any factors that might affect the progress of their research or time to degree. Although the frequency of meetings may vary according to individual circumstances and the norms of diverse academic cultures, a suggested minimum is twice quarterly.

Recognize the importance of seeking an early and informal resolution of any problems in their working relationships with their advisor or others by first consulting with the advisor.

Take primary responsibility for informing themselves of the regulations, policies, and practices governing their financial aid, degree and course requirements, research activities, and conflict resolution. This may involve:

- consulting departmental notes or guidelines for graduate students;
- seeking clarification from the faculty advisor when they are uncertain about the precise meaning or application of a regulation or policy statement.

9.2 Faculty advisors should:

Help students design research programs that take advantage of their individual interests and strengths and that can be completed in a timely manner.

Encourage, by example and precept, a dedication to high-quality teaching and research.
Encourage students to be open about any problems in their working relationships (including the relationship with the advisor), and being open to making accommodations to deal with such problems.

Provide students with evaluation of their progress and performance in regular and informative ways.

Encourage graduate students to participate in professional meetings, perform or display their work in public settings, and publish the results of their research.

Provide a realistic view of the field and the current job market and making use of professional contacts for the benefit of their students.

Maintain a high level of professionalism, including:

- excusing themselves from participating in committee decisions regarding any student with whom they have a relationship that could result in a conflict of interest;
- never impeding a graduate student's progress toward the degree or toward employment in order to benefit from the student's proficiency as a teaching or research assistant.

10.0 Sources of Student Funding

A number of funding sources are available for Ph.D. students. Student funding is a joint responsibility of the student, the major professor, the ESE Program, and the graduate school. Students are encouraged and expected to be active participants in obtaining funding for their education. Availability and stability of funding are two important considerations when choosing a major professor.

*Research Assistantships.* Most funded research projects include funding for student support. Availability of research assistantships is a major consideration in choosing a research topic. At the Ph.D. level, students are expected to play an active role in writing grant proposals in conjunction with professors.

*Scholarships and Fellowships.* A number of fellowships are available for students, particularly US citizens and permanent residents. Students are encouraged to apply for fellowships.

*Teaching Assistantships.* A limited number of teaching assistant positions are available for support of students. Priority for limited funding will be given to new (generally first year) students and/or situations where a grant has expired. Students must complete an application form for financial assistance each semester where teaching assistantship funding is requested. Students should not rely on this source of funding for their entire tenure at UTEP.
10.1 Selected funding programs for graduate students

10.1.1 National Institutes of Health


NRSA INSTITUTIONAL TRAINING GRANTS IN ENVIRONMENTAL HEALTH SCIENCES http://grants2.nih.gov/grants/guide/pa-files/PAR-00-038.html

K series awards. These are career development awards that usually fund most (e.g., 75%) of the PI's FTE for 5 years and provide some, typically $50-100K/year in research support. Here is a K specific to NIEHS, but there are all sorts of K awards in general.


NATIONAL RESEARCH SERVICE AWARDS FOR INDIVIDUAL POSTDOCTORAL FELLOWS (F32) http://grants2.nih.gov/grants/guide/pa-files/PA-00-104.html

NIH PREDCTORAL FELLOWSHIP AWARDS FOR STUDENTS WITH DISABILITIES (F31) http://grants2.nih.gov/grants/guide/pa-files/PA-00-068.html

NIH PREDCTORAL FELLOWSHIP AWARDS FOR MINORITY STUDENTS (F31) http://grants2.nih.gov/grants/guide/pa-files/PA-00-069.html


10.1.2 Environmental Protection Agency

http://es.epa.gov/ncer/rfa/

10.1.3 National Aeronautics and Space Administration (NASA)


Must be underrepresented group (female, disabled, hispanic) and US citizen.


11.0 Living and Financial Considerations

11.1 Cost of Study

Student fees and tuition total about $1250 for 9 semester hours for residents and $3100 for nonresidents, with an additional $200-$300 in books. All teaching and research assistants pay in state tuition rates. Please see http://www.utep.edu/graduate for more detailed information.

11.2 Living and Housing Costs

The cost of living in El Paso is slightly below the national average. Off-campus apartments rent from $280 to $800 per month. Miner Village, UTEP’s new on-campus apartment-style residence halls will provide quick and easy access to UTEP classes, labs, the university library, campus activities, events, and is within walking distance of street merchants. This housing consists of a complex of 13 buildings on the corner of Oregon and Robinson Streets with more than 125,000 square feet for more than 400 students.

11.3 Foreign Students

Welcome to The University of Texas at El Paso, El Paso, TX (UTEP). Once you get your visa from your country's American Consulate General try to get in touch with the Office of International Program. (www.utep.edu/oip) Ask the office to arrange for airport pickup and accommodation. Alternatively, you can get in touch with the various student organizations (the web address of active organizations is listed on OIP webpage) for pick up and temporary accommodations until permanent accommodation is found. The travel itinerary should be forwarded to the people picking you at the airport, because most of the flights arrive late night in El Paso.

11.3.1 First Things First!!

As a new international admit you have to first report to the Office of International Program (OIP) which is located in the Union Building. Please take a copy of your passport, visa, and I-20 to OIP. After the submission of the copies and filling up the forms supplied by the OIP, please do not forget to sign up for the international student orientation. The student orientation tells you about the various rules and regulations that Immigration and Naturalization Service (INS) has for foreign students. It is also important to attend this orientation because application for Social Security Number (SSN) is usually done at this time. The SSN is required for any kind of on campus job you take. The SSN is also used actively as an ID number by various institutions.

11.3.2 Contact the ESE Program

The next stage is to meet Cindy Conroy, the program coordinator for the Environmental Science and Engineering Program (ctconroy@utep.edu x 5433).
11.3.3 Register for Classes

After meeting the program coordinator and getting advised for your classes, the next step is to register for the classes by paying the appropriate fee at the Academic Business Center.

At this place you can get your official UTEP ID made. You also need to ask about opening an official email account which ends with the utep.edu (newstudent@utep.edu), this email is necessary for all official communications.

Please note that the US system of education it is imperative for a student to actively participate in class discussions. Please do not refrain from class discussions for lame reasons and it is not taken lightly by most professors. If you need to go somewhere during your class hours, please excuse yourself in advance. (Most professors will excuse you, but don't make it a habit).

The US education system is based on grades. The grades are:
- A=4 points
- B=3 points
- C=2 points
- D=1 points
- F=0 points

At the Ph. D level grades C and below is considered failing for most classes. Low grades may jeopardize your career and funding.

11.3.4 Text Books and School Supplies

These can be bought from the Student Book Store or alternatively purchased from websites or even from other local stores.

11.3.5 Accommodations

Several types of accommodations are available. UTEP has UT Miner Village (schools apartments) and individual apartments in and around the school campus can be rented from private companies. The rent typically ranges from $330 to $575 per month. An advance deposit is usually required for these rentals.

11.3.6 Shopping

Once you have identified a place to stay, then you need supplies for the house and groceries to make food. There are a number of stores around the campus like Food Basket, Albertsons, and Walgreen's-for all your emergency medical needs. You can alternatively shop at the Wal-Mart, Target, K-Mart or other stores of choice or at the malls like the Sunland Park Mall, Cielo Vista Mall or the Basset Center. The best way to reach these places is to use the public transportation system run by Sun Metro, if you don't have a car. The fee is usually $0.50 with school ID or otherwise a dollar.
11.3.7 On Campus Jobs

Most of the Ph.D. students are usually funded either through Teaching Assistant or Research Assistant positions, but there may be cases that the students do not have any funding. The other funding sources are working on campus for places like the cafeteria, tutors at the TLC at the library, part time graders in various departments. Please do not try to work outside campus. El Paso being a border town is heavily patrolled by the Border Patrol and the Immigration Officials. American Laws don't allow a foreign student to work for more than 20 hours a week. Please don't seek a job of more than 20 hours. If you are caught working illegally you could be deported. It is advisable to bring enough money to pay for at least one semester of fees. This sum can be roughly calculated as one third of the amount mentioned on the I-20.

11.3.8 Health Insurance

It is mandatory to have health insurance. The university HR department will help you select the best insurance that is suitable for you. You can also buy the students health insurance at the time of fees payment. It is also important to pay money for repatriation fee in OIP. This fee insures that your body is cremated properly or shipped to your home in case of a life ending event.

11.3.9 Drivers License

If you decide to buy or rent a car, a drivers license is required. The legal driving age in USA is 16. An international driver's license is acceptable in most states but its always better to get a license from the state you are staying in. The license fee in the state of Texas is $25. You have to first get an instructor permit for the vehicle and then a license. To find the details call the state's Department of Public Safety Motor Vehicle Division.

In the United States it's illegal to drink and drive. If you decide to drink please get a designated driver for yourself or call a cab.

If you decide to leave town for travel, please carry your passport and I-20 at all times. If you fail to carry these you can be arrested by the immigration officials for lack of evidence.