NEW STUDENT HANDBOOK

Environmental Sciences PhD Program

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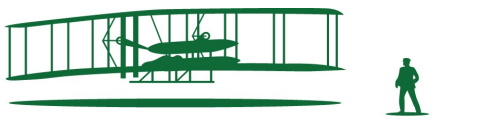

WRIGHT STATE UNIVERSITY

WELCOME to the
Environmental Sciences PhD Program
Wright State University

This packet was designed to assist you in moving through the program, keep you up-to-date on required forms and answer any questions you might have along the way.

After the Timeline, you will find all ES PhD Semester courses required. Also included are course waiver forms. You can petition (using the course waiver form) for substitutions of core courses or acceptance of "up to" 6 of 10 required hours of elective courses.

The following section includes a list of curriculum forms. All forms can be found in the program office, 114 Biological Sciences I, or on our website:

http://science-math.wright.edu/environmental-sciences-phd/advising/forms

Please keep all forms updated for future student evaluations.
You can also find travel packets in the program office. Students are encouraged to request funds for travel or training and may be awarded "up to" $500, with funds also available from the College of Science and Math and the student's home department.

Finally, you will find a copy of the Program Policies and Guidelines. Refer to this often for general questions or you can contact the administrative specialist in the ES PhD program office (114 Biological Sciences I).

TIMELINE

IF THESE GUIDELINES ARE FOLLOWED CLOSELY, YOUR STUDIES HERE SHOULD BE COMPLETE IN APPROXIMATELY 5 YEARS.

TIMELINE

For full time students

Year I

- Choose dissertation director
- Core curriculum courses
- Form supervisory committee
- Electives as needed, can be taken any year

Year II

- Complete core curriculum courses
- Complete preliminary exams

(Policies & Guidelines document, sec. XIII, page 10)

Year III

- Write dissertation proposal and obtain approval

(Policies & Procedures document, sec. XIV.A, page 16)

Year IV and V

- Dissertation research
- Have one committee meeting per year
- Obtain permission to write dissertation
- Write, present, and defend dissertation
- Graduate

** Required teaching duties may be performed any time during the program depending on the nature of your funding arrangements.

If these guidelines are followed closely, your studies here should be complete in approximately 5 years.

ES PHD SEMESTER COURSES

ES PhD Semester COURSES

The student is responsible for developing, with Dissertation Committee and Interdisciplinary Review and Policies Committee input and approval, a program of study for how the student will complete degree requirements. The program of study should be finalized by the beginning of Year 2.

The following is an outline of the general academic requirements for courses, seminars, and dissertation research. An internship is optional. Elective courses are chosen in consultation with the Dissertation Director, Dissertation Committee, and Interdisciplinary Review and Policies Committee (IRPC).

Foundation Courses		**Credit Hrs.**
ES 7140	Statistical Modeling for Environmental Data (Offered every other spring semester)	3
ES 7090	Perspectives in Environmental Science Seminars	1 (2 total)
	Sub Total	*5*
	(Choice of <u>two</u> of the following core courses)	
ES 7160	Complexity in Environmental Systems (Offered every other spring semester)	4
ES 7120	Environmental Bio: Genes, Organisms, and Ecosystems (Offered every other fall semester)	3
ES 7180	Chemical Processes in the Environment	3
ES 7020	Global Biogeochemical Cycles	3
	Sub Total	*6 or 7*
Advanced Electives (waive up to 6 hrs.)		10 min.
Course Total		***21 or 22***
ES 8130	Dissertation Research	30 min.
Other Options		
ES 7990	Independent Topics & Research	variable
ES 8080	Internship Option	variable
TOTAL		**90**

COURSE WAIVER FORM

THIS FORM IS USED TO PETITION FOR SUBSTITUTION OF CORE COURSES OR ACCEPTANCE OF "UP TO" 6 OF THE 10 REQUIRED HOURS OF ELECTIVE COURSES.

Course Waiver Form

Environmental Sciences PhD Program

(Student) **(Start Date)**

(UID)

Degree Source Year	Course to Waive/Institution	Grade	# Credit Hours

Course Description:

(Note: You must *attach a course syllabus* that is as close as possible to the course at the time it was taken. If that course syllabus is not available, a syllabus as close as possible to the course at the time it was taken is needed plus a description of how the course was different when you took it.)

Course equivalent (ES PhD Program):

(Program Director's Approved Signature) (Hours accepted) (Date)

Comments:

LIST OF CURRICULUM FORMS for

Environmental Sciences Ph.D. Students

Semester Registration Form

- for core courses, electives, independent topics, lab rotations, dissertation hours (will be completed with each registration)

Dissertation Advisor Approval

- completed Year 1

**** Program of Study Form**

- completed by graduation

**** Proposed Supervisory Committee**

- completed by the end of Year 1

(Typically the student provides committee member's names, rank and department for Kim to type and get appropriate signatures. Student should provide e-mail address for external advisor since these members need graduate school approval, also.)

**** Supervisory Committee Meetings**

- completed after each committee meeting, which should be two times per year

**** Preliminary Examination Form**

- should be completed by the end of the second year

**** Acceptance of Written Dissertation Proposal**

- should be completed by the end of the third year

**** Permission to Write Dissertation**

**** Acceptance of Dissertation**

NOTE: ***There is a form required for each stage in your progress. ALL forms are available in the ES PhD office, 114 Bio Sciences I.***

Most are also available on-line at: *www.wright.edu/academics/envsci*

SEMESTER REGISTRATION FORM

THIS FORM IS REQUIRED EVERY SEMESTER AS PART OF THE REGISTRATION PROCESS.

ALL COURSES YOU REQUEST TO TAKE SHOULD BE LISTED ON THE FORM. AFTER APPROVED BY YOUR MENTOR, THE STUDENT SHOULD RETURN THE FORM TO THE ADMINISTRATIVE SPECIALIST WHO WILL THEN UNBLOCK THE ES COURSES REQUIRED SO THE STUDENT CAN REGISTER ON-LINE.

ENVIRONMENTAL SCIENCES Ph.D. PROGRAM

SEMESTER REGISTRATION FORM

STUDENT _____ **UID** _____

Semester/Year

Fall_____ **Spring** _____ **Summer**_____

CRN	Department	Course #	Section	Credit Hours

Course		Course Number	Section Number	Credit Hours
_____	Independent Topics	ES 7990	_____	_____

Method of Grade: Indicate preferred grading option here:

"P" or "U" ☐ **Letter Grade (A-F)** ☐

_____ _____

Signature of Faculty Member **Faculty UID#**

REQUEST FOR DISSERTATION DIRECTOR APPROVAL

THIS FORM IS REQUIRED TO BE SIGNED BY THE RESEARCH ADVISOR THE STUDENT DECIDES TO WORK WITH AND DIRECTOR OF THE PROGRAM.

THIS SHOULD BE DONE RIGHT AFTER YOU JOIN THE ES PHD PROGRAM.

ENVIRONMENTAL SCIENCES DOCTORAL PROGRAM

REQUEST FOR DISSERTATION DIRECTOR APPROVAL

Having considered opportunities throughout the Environmental Sciences Ph.D. Program and having completed appropriate laboratory rotations, I, _____ request approval of _____ as my dissertation director.

_____ _____

Signature (student) **Date**

Upon discussion and careful consideration, I agree to serve as dissertation director for the above-mentioned student. To the extent that my grants/contracts will allow and dependent on availability of funds, I will support this student's research activities and mentor his/her development during his/her studies in the Environmental Sciences Ph.D. Program here at Wright State University. This support is contingent upon the student maintaining their status as a member of the Environmental Sciences Ph.D. program and is making appropriate progress towards their Ph.D. degree.

_____ _____

Signature (faculty) **Date**

This request has been approved.

_____ _____

Program Director Signature **Date**

PROGRAM OF STUDY

THE STUDENT SHOULD MAINTAIN THIS FORM WITH ALL COURSES TAKEN AS THEY MOVE THROUGH THE ES PHD PROGRAM.

THEY WILL BE REQUIRED TO TURN THIS IN TO THE GRADUATE SCHOOL BEFORE RECEIVING THEIR DIPLOMA.

PROGRAM OF STUDY

The Graduate School

Major: ES #421 **Program:** Environmental Sciences Ph.D. Program **College:** College of Science & Mathematics

Thesis required: _____ **Completion date:** _____ **MS degree date:** _____

_____ _____

Student's name: Last, first, middle UID Number

Completed Program of Study

Dept.	Course#	Semester Credit Hours	Course Title	Req.	Elec.	Waiver	Grade	Semester Year

_____ _____

Student **Date**

_____ _____

Dissertation Advisor **Date**

_____ _____

Program Director **Date**

PROPOSED SUPERVISORY COMMITTEE

WHEN THE STUDENT IS READY TO FORM THEIR DISSERTATION COMMITTEE, THEY SHOULD PROVIDE THE ADMIN. SPECIALIST IN THE ES PHD PROGRAM WITH NAMES, RANKS, AND DEPARTMENT OF THEIR COMMITTEE MEMBERS. AN E-MAIL ADDRESS IS ALSO HELPFUL FOR EXTERNAL MEMBERS. THE FORM WILL THEN BE FILLED OUT IN THE PROGRAM OFFICE, SIGNATURES OBTAINED AND SENT ON TO THE GRADUATE SCHOOL.

A COMMITTEE CONSISTS OF THE STUDENT'S DISSERTATION DIRECTOR, AND AT LEAST 3 PROGRAM FACULTY MEMBERS SELECTED BY THE DIRECTOR AND STUDENT. ONE OF THOSE MEMBERS SHOULD BE FROM OUTSIDE THE STUDENT'S HOME DEPARTMENT. AN EXTERNAL MEMBER IS ALSO REQUIRED.

ENVIRONMENTAL SCIENCES DOCTORAL PROGRAM

Proposed Supervisory Committee

Student _____ **Date** _____

Name	Graduate School Program Status (Full, Associate)	Rank	Department

Dissertation Director _____

Committee Members:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
   (Non-Voting Member – Optional)

_____ _____

Signature of Dissertation Director **Date** **Signature of Dissertation Co-Director** **Date**

_____

Student Signature **Date**

APPROVAL

_____ _____

Program Director, Environmental Sciences Ph.D. Program **Date**

_____ _____

Dean, College of Science and Mathematics **Date**

_____ _____

Dean, Graduate School **Date**

RECORD OF PERIODIC SUPERVISORY COMMITTEE MEETINGS

THE STUDENT AND THEIR COMMITTEE SHOULD MEET AT LEAST TWICE A YEAR. THE STUDENT SHOULD FILL ONE OF THESE FORMS OUT AND RETURN THE SIGNED FORM TO THE PROGRAM OFFICE TO BE PLACED IN THEIR FILE.

ENVIRONMENTAL SCIENCES DOCTORAL PROGRAM

Record of
Periodic Supervisory Committee Meeting

Student _____ **Date** _____

The committee met on the above date to discuss the student's progress and program.

Things are proceeding on course with only minor problems, if any. ☐

The attached summary progress report was found to be satisfactory. ☐

One or more significant problems have arisen:

_____

_____

_____

_____

_____

_____

_____

_____

Committee Member Signature

PRELIMINARY EXAM

THIS FORM IS USED AS A RECORD OF THE ATTEMPT AT THE PRELIMINARY EXAM (USUALLY BY THE END OF THE SECOND YEAR). IT SHOULD BE FILED IN THE ES PHD PROGRAM OFFICE.

ENVIRONMENTAL SCIENCES DOCTORAL PROGRAM

Preliminary Examination

DATE: _____ **Student Name**: _____

1. Written Examination

Committee Member Signature	Outcome Pass/Fail/Defer	Comments

2. Oral Examination

Committee Member Signature	Outcome Pass/Fail/Defer	Comments

3. Overall Recommendation: #Vote

Pass _____

Fail _____

Defer _____

4. Comments and Recommendation: _____

_____

_____

5. _____

Dissertation Director Date

6. _____

Student Date

ACCEPTANCE OF WRITTEN DISSERTATION PROPOSAL

THIS FORM SHOULD BE SUBMITTED TO THE PROGRAM OFFICE ONCE THE STUDENT'S DISSERTATION PROPOSAL IS APPROVED (USUALLY BY THE END OF THE THIRD YEAR).

ENVIRONMENTAL SCIENCES DOCTORAL PROGRAM

Acceptance of

Written Dissertation Proposal

Student _____ **Date** _____

The attached written plan was accepted by us, and is an adequate and proper proposal of the dissertation research to be undertaken.

Dissertation Director Signature:

_____

Committee Members Signature:

_____

_____

_____

_____

_____

PERMISSION TO WRITE DISSERTATION

THIS FORM IS SUBMITTED TO THE PROGRAM OFFICE ONCE THE SUPERVISORY COMMITTEE AGREES THAT THERE IS ADEQUATE RESEARCH DATA AND ACCOMPLISHMENT FOR THE STUDENT TO END LABORATORY WORK AND PREPARE A WRITTEN DISSERTATION.

ENVIRONMENTAL SCIENCES DOCTORAL PROGRAM

PERMISSION

To

WRITE DISSERTATION

Student _____ **Date** _____

The supervisory committee, on this date, agreed that there is adequate research data and accomplishment for the student to end laboratory work and prepare a written dissertation.

Dissertation Director Signature: _____

Committee Members Signatures:

_____

_____

_____

_____

_____

Note any exemptions, provisions, or additional work required.

_____

_____

_____

_____

_____

_____

_____

_____

ACCEPTANCE OF DISSERTATION

THIS FORM IS SUBMITTED ONCE THE STUDENT HAS SATISFACTORILY COMPLETED THE WRITTEN AND ORAL PRESENTATION OF THEIR DISSERTATION.

ENVIRONMENTAL SCIENCES DOCTORAL PROGRAM

ACCEPTANCE OF DISSERTATION

Student _____ **Date** _____

We, the supervisory committee, accept the written dissertation following a public and oral defense and certify that the accomplishments therein are such that the candidate has completed the dissertation requirement for the degree of Doctor of Philosophy in Environmental Sciences.

Dissertation Director Signature:

_____

Committee Member Signatures:

_____

_____

_____

_____

_____

TRAVEL AND TRAINING FUNDS

RESEARCH SUPPORT FUNDS ARE AVAILABLE TO SUPPORT TRAVEL AND TRAINING EXPENSES FOR STUDENTS IN THE ENVIRONMENTAL SCIENCES PHD PROGRAM.

APPLICATION GUIDELINES ATTACHED HERE.

APPLICATION FOR STUDENT TRAVEL AND TRAINING FUNDS

Environmental Sciences PhD Program

(Complete this form and return it to K. Napier, 114 Bio Sci. I)

Student Name: _____

Purpose of Request:

- Meeting Travel *

◊ Name of Meeting: _____

◊ Location of Meeting: _____

◊ Dates of Meeting: _____

◊ Level of Participation at the Meeting: (e.g. presenting a paper/poster, co-author on a paper/poster, etc.)

(Please attach a copy of your abstract and meeting announcement)

- **Training Travel** **

Description of ……..

(Please attach a brief statement of need and hours of training)

Costs:

- * For meeting travel, provide a cost estimate for transportation, room and board and registration.
- ** For training travel, provide a cost estimate for the need.

Are any matching funds available? **Yes/No**

Source (e.g. faculty advisor, home department, applying to College of Science & Math)

ES PhD Program Progress

Do you have a dissertation director form on file in the program office **Yes/No**

Have you completed your preliminary exams? **Yes/No**

_____ _____

(Signature of Student) **(Signature of Faculty Advisor)**

_____ _____ $_____

(Director Approval, signature) **(Date)** **(Funds approved)**

Guidelines for the Environmental Sciences PhD Program

Student Travel/Training Support Fund

1. The Research Support Fund is available to support travel and training expenses for PhD students in the Environmental Sciences PhD Program.
2. To be eligible, applicants in the ES PhD program must have the approved program dissertation advisor form on file in the ES PhD program office.
3. As of Fall, 2004, a "full" award from this fund is $500 (maximum).
4. A student is eligible for one "full" award per academic year. PhD students may receive the "full" award amount up to four times during the course of their degree program.
5. Our guidelines for offering funding are:

Meeting Travel

- A student who is first author or presenting author on a paper/poster is eligible for full funding.
- A student who is second or later author, or is a non-presenting author, is eligible for partial funding.
- Each single paper/poster will receive a maximum of 1.5 times the full funding amount when more than one program student is a co-author on the presentation. Division of these funds will be at the discretion of the faculty advisor.
- Students who are attending a meeting but are not involved with a presentation are eligible for $200 toward funding one meeting per year. Students attending short-courses or workshops may also receive partial funding.

Research Training and Travel Expenses

- Expenses incurred for dissertation research that involves travel for training at workshops, short courses, or supervised laboratory/field experiences are eligible for support. Such expenses may include travel, registration, housing and per diem for meals.

6. We encourage students applying for the Travel Support Fund to also request, and indicate in this application, the availability of, additional matching funds from their home department, College and faculty advisor.
7. Funds are awarded on a “first-come, first-serve” basis for those meeting eligibility requirements.
8. Application forms for the ES PhD Travel/Training Support Fund and the COSM Travel Form are available in the ES PhD program office.

REQUEST FOR FUNDS and REIMBURSEMENT PROCEDURES
Special Projects Fund - College of Science and Mathematics

This information is to help you consider whether you can qualify for additional travel funding from the College Office. Please contact the ES PhD program office before travel. College funding is provided on a "first-come, first-served" basis. If you plan on attending a conference at any time during the academic year, it is in your best interest to apply as early as possible so that funding can be encumbered in your name.

All requests for funds must be submitted prior to the funded activity using the Request for Funds form (available in the ES PhD program office). Any requests received after the travel will be denied. A copy of your signed travel authorization must be attached. After you have traveled, the program office (Kim) will submit a Request for Reimbursement form for you.

All requests are processed on a "first come, first served" basis. When all funds have been expended, requests will be dated and held for any cancellations. If your event is canceled, please notify Kim in the program office so that the funds can be made available for another student.

ADMINISTRATIVE POLICY
Special Projects Fund - College of Science and Mathematics

This policy establishes the College's guidelines regarding Special Projects Fund. The College of Science and Mathematics will consider requests for funding in the following areas:

Priority 1:
Students who travel to professional meetings to present paper or posters may request funds to match departmental support, not exceeding $150 for domestic travel and not exceeding $300 for international travel. Students may request funds for travel one time during the academic year.

Priority 2:
Students who attend professional meetings but do not present may request funds to match departmental support not exceeding $100 for domestic travel and not exceeding $200 for international travel. Students may request funds for travel one time during the academic year.

ES PhD Program
Policies and Guidelines

For the Completion of the
Doctor of Philosophy Degree in the
Environmental Sciences Ph.D. Program
Wright State University

May 29, 2002
(revised 6/04/04)
(revised 3/02/05)
(revised 11/1/05)
(revised 5/21/11)

A Summary of Requirements for the Doctor of Philosophy Degree In the Environmental Sciences Program

A student must:

1. Complete courses with a minimum grade point average (GPA) of 3.0 (B).
2. Have approved a program of study detailing the names and sequencing of courses to be taken.
3. Pass a Preliminary Examination.
4. Prepare a written dissertation proposal.
5. Accumulate a minimum of 90 didactic, seminar, laboratory, and dissertation research hours in the Program.
6. Conduct research on an acceptable original problem, submit an approved written dissertation, and make a successful public defense of the dissertation.
7. Be certified by the Program Director as having completed all requirements for the Ph.D. degree, including the completion of an acceptable dissertation.
8. Meet residency requirements.
9. Be registered in the semester in which the degree is conferred.
10. Present one copy of the approved dissertation to the Graduate School and one copy to the Program Office.
11. Fulfill all requirements within nine years of entrance into the Program, except in extenuating circumstances

A Summary of Requirements for the Doctor of Philosophy Degree for Students with a Masters of Science Degree

Listed below is a summary of the requirements for the Doctor of Philosophy degree in Environmental Sciences at Wright State University for students who have completed a Masters of Science degree from an accredited U.S. university. In addition, the student must:

1. Complete all courses with a minimum GPA of 3.0 (B).
2. These students will normally be exempted from up to 30 credits in the ES PhD program. Exemption will depend on the area of concentration, the recommendation of the Dissertation Director and the Dissertation committee and approval of the Program Director.
3. Have approved a program of study detailing the names and sequencing of courses to be taken.

4. Pass a Preliminary Examination.

5. Prepare a written dissertation proposal.

6. Accumulate a minimum of 90 didactic, seminar, laboratory, and dissertation research quarter hours in the Program. Credits for any courses exempted by the student's Dissertation Committee count toward this total.

7. Conduct research on an acceptable original problem, submit an approved written dissertation, and make a successful public defense of the dissertation.

8. Be certified by the Program Director as having completed all requirements for the Ph.D. degree.

9. Meet residency requirements.

10. Be registered in the semester in which the degree is conferred.

11. Present one copy of the approved dissertation to the Graduate School and one copy to the Program Office.

12. Fulfill all requirements within nine years of entrance into the Program, except in extenuating circumstances.

I. Curriculum

The student is responsible for developing, with Dissertation Committee and Interdisciplinary Review and Policies Committee input and approval, a program of study for how the student will complete degree requirements.
The program of study should be finalized by the beginning of Year 2.

The following is an outline of the general academic requirements for courses, seminars, and dissertation research. An internship is optional. Elective courses are chosen in consultation with the Dissertation Director, Dissertation Committee, and Interdisciplinary Review and Policies Committee (IRPC).

Foundation Courses		**Credit Hrs.**
ES 7140	Statistical Modeling for Environmental Data (Offered every other spring semester)	3
ES 7090	Perspectives in Environmental Science Seminars	1 (2 total)
	Sub Total	5
(Choice of <u>two</u> of the following core courses)		
ES 7160	Complexity in Environmental Systems (Offered every other spring semester)	4
ES 7120	Environmental Bio: Genes, Organisms, and Ecosystems (Offered every other fall semester)	3
ES 7180	Chemical Processes in the Environment	3
ES 7020	Global Biogeochemical Cycles	3
	Sub Total	6 or 7
Advanced Electives (waive up to 6 hrs.)		10 min.
Course Total		**21 or 22**
ES 8130	Dissertation Research	30 min.
Other Options		
ES 7990	Independent Topics & Research	variable
ES 8080	Internship Option	variable
TOTAL		**90**

II. <u>Time Limit</u>

Graduate credit applied toward the doctoral degree is valid for only nine years from the date the student enters the Program, except in extenuating circumstances. Extenuating circumstances must be acceptable to the Interdisciplinary Review and Policies Committee, the Program Director, and the Dean of the Graduate School.

III. Residence Requirements

A minimum of 50 credit hours toward a doctoral degree must be completed at Wright State University. A doctoral student must be enrolled full time for a minimum of two semesters after passing the Preliminary Examination.

IV. Grading Standards

Graduate students working toward the Doctor of Philosophy degree must maintain at least a 3.0 grade point average in all graduate courses and in all other graduate work that is assigned a letter grade. Dissertation research receives grades of satisfactory (M) or unsatisfactory (U) until the dissertation is accepted, after which these will then be converted to a standard letter-grade. A 3.0 average and the recommendation of the student's Dissertation Committee and the Program Director are required for graduation.

V. Advanced electives, Independent Study and Internships

Ten credits of advanced electives from didactic courses are required. Beyond this, there is no restriction on the number of independent study or internship credits that can be obtained.

VI. Probation

Any student whose cumulative GPA falls below 3.0 will be placed on probation. For students beyond Year 1, failure to re-attain a cumulative GPA of 3.0 within the next 8 credit hours of course work will result in a recommendation for dismissal from the Program.

The entering student must achieve an overall GPA of at least 3.0 after completing Year 1. A student who completes Year 1 with a GPA of less than 2.7 will be recommended to the Dean of the Graduate School for dismissal from the Program. A student with a GPA above 2.7 but below 3.0 must re-attain a 3.0 by the end of the next (Fall) semester. A student who fails to attain a GPA of 3.0 by the end of Fall semester following year 1 will be recommended for dismissal from the Program. If a student repeats a course, only the grade received the second time will be used in calculating the student's GPA.

A student who fails the Preliminary Examination will be recommended for dismissal from the Program. A student may also be recommended for dismissal for non-academic reasons. Matters pertaining to dismissal for non-academic matters are handled by and in consultation with the university's Office of Student Affairs.

VII. Waiver of Program Requirements

Students may petition for waiver of credit for previous graduate courses taken in another accredited program. Additional course credit of up to 6 credit hours may be waived providing (a) the grade attained in each course is a "B" or better, (b) the course was taken within four years of the actual waiver, and (c) the course relates to the area of concentration chosen in this Program as confirmed by the

advisor. Petitions for obtaining credit for laboratory experiences may be made, subject to the same credit hour limitations and time constraints as for courses.

Petitions for exemption or waiver should be submitted to the Program Director, who will make the final decision, and who may, if necessary, seek a recommendation from the Interdisciplinary Review and Policies Committee, the student's dissertation committee, or other relevant faculty members.

VIII. Financial Assistance

Graduate Assistantship and Fellowship support is available to students on a competitive basis. Students awarded support are eligible for stipends and remission of tuition fees. Students with financial assistance must register as a full-time student each quarter (at least 12 credit hours of approved courses in the ES program).

IX. Policy on Work Outside the Program

A. No student receiving University support may ordinarily hold employment outside of the Program without the approval of the Program Director. A student who takes a job without such approval may be dismissed from the Program. Permission may be granted only on a case-by-case basis.

B. Students who are supported by grant funds or by affiliated laboratories of the university may earn up to the level of the ES Graduate Assistantship and Fellowship stipend plus the supplementation allowed to graduate appointees by the policies and procedures of the Graduate School

C. Students holding externally funded pre-doctoral Fellowships may be paid the amount awarded by the external agency. If necessary, the Program may supplement an external fellowship award up to the level of the ES fellowship stipend and tuition waiver.

X. Leave of Absence

Students who fail to complete at least one course in two consecutive semesters will automatically be retired from the active files of the Graduate School. The term "course" includes formal courses, independent study, thesis research, continuing registration, etc. Reapplication for admission will be required to reactivate the student's records. (No additional fee will be charged.) A "leave of absence" from the ES PhD program may be requested, from the program director, by a student for up to one calendar year.

XI. Dissertation Director

A. The student should select a Dissertation Director by the end of the first semester of study by submitting a letter to the Program Director requesting approval of his/her choice for Dissertation Director. The student may change the Dissertation Director once and even then only with the approval of the Program Director.

The Dissertation Director must be a full member of the Program Faculty, and be approved by both the Program Director and the Dean of the Graduate School.

B. Program Faculty will not be assigned as the Dissertation Director of more than three students in the Ph.D. Program concurrently without the approval of the Interdisciplinary Review and Policies Committee on a case-by-case basis.

C. Service as a co-supervisory professor by a full faculty member does not count towards the limits specified in X.B.

XII. Dissertation Committee

A. Composition

1. The Dissertation Director and co-supervisory Program Faculty professor, if applicable.

2. The Dissertation Committee consists of:

a. The Dissertation Director and at least three Program Faculty members selected by the Dissertation Director and the student with the approval of the Program Director. One of the Program Faculty members should be from outside the student's home department (department where the Dissertation Director is affiliated). An additional faculty member external to the university with recognized expertise in the dissertation topic is also required and is selected by the Dissertation Director with the approval of the Program Director. The Dean of the Graduate School and the Dean of the College of Science & Mathematics must also approve the Dissertation Committee. (see Appendix - Form A)

b. No more than three of the voting members (including the Dissertation Director) may be affiliated with the department of the Dissertation Director.

c. Appointment of members external to the university is subject to the Bylaws of the ES Ph.D. Program and the Graduate School. In particular, external committee members must qualify as adjunct graduate faculty members.

d. A non-voting member of the committee maybe appointed by the Program director to provide guidance as to program Bylaws, Policies and Guidelines during the dissertation process if needed. This person may be either the Program Director or another full Program member selected by the Program Director.

B. Functions of the Dissertation Committee

1. Advises and supports the student and Dissertation Director in the design, implementation and interpretation of an appropriate environmental dissertation research project.

2. Serves as the Examination Committee for the Preliminary Examination.

3. Receives and approves a written and oral proposal for the dissertation research.

4. Meets at least once a year to review the student's program of study and research. It is the joint responsibility of the student and the Dissertation Director to schedule committee meetings.

5. Determine when a dissertation may be officially written (see Appendix-Form E).

6. Receives and evaluates the written dissertation.

7. Schedules and conducts an oral public examination of the dissertation.

8. Submits signed documentation of all meetings and outcomes to the Program Director.

9. Recommend the candidate to the Program Director by approval of the dissertation.

   Approval by the Committee at all steps and stages occurs by the unanimous vote of the Committee members. The Dissertation Director may override a single dissenting vote. If necessary, the Program Director will make a final decision after convening an Advisory Committee.

10. For Committee meetings to review progress, a quorum consists of 2/3 of the voting members and must include the Program Faculty serving on the student's Dissertation Committee.

11. For all other meetings (preliminary examination, proposal, permission to write, and the dissertation defense) ALL voting members of the committee must be present. Participation via teleconference or videoconference is acceptable. In the event that a committee member is unable to attend a meeting, they should be provided the opportunity to provide input and vote, if needed, on the proceedings.

12. The Dissertation Director chairs all meetings of the Dissertation Committee.

XIII. Guidelines for the Preliminary Examination

The Preliminary Examination can be taken at any time, but must be successfully completed before the end of Year II. The Dissertation Committee must agree upon the examination topic and dates no later than the end of the spring semester in Year II. The ES Office should be notified of the proposed title and dates.

The examination will consist of:

a written document, and
an oral examination

The written paper will be submitted not less than two weeks before the scheduled oral examination. The examining body will consist of the student's Dissertation Committee and, if requested by the dissertation director, the Director of the ES Program. The Dissertation Director will chair the examination committee.

Following the oral examination, the committee will recommend one of the following outcomes:

Pass
Deferred decision
Fail

A student who fails the Preliminary Examination will be dismissed from the Program. If the Committee decides that there are merely deficiencies in the student's knowledge, but that such deficiencies can be rectified by specific actions, they may recommend a deferred decision. Such an outcome will require the approval of the Director of the Program. If approval is granted, the student has until the end of the semester following the examination to fulfill the Committee's requirements. In exceptional cases where deferral requires that the student undertake additional course-work, this time limit will be extended to the end of the semester in which the required courses(s) is/are offered. If necessary, evaluation of the student's performance will include a second oral examination. Successful completion of the prescribed requirements will result in a Pass for the Preliminary Examination. Failure to meet the prescribed requirements and pass the examination within the time specified will result in dismissal from the Program.

A. Guidelines for the Written Component

The student submits a written document of no more than 25 pages in length (excluding references cited and any illustrations). The document must be typed double-spaced, using a clear and readily legible (10 to 12 point) font. Each Committee member must receive a copy of the document.

This written document permits a student to demonstrate knowledge of the area of research they are entering, understanding of the experimental procedures that are available to them, ability to design intelligent experiments and predict their outcome, and ability to think critically and clearly. This process also helps to focus a student's scientific thoughts in a way that will prepare them for subsequent proposal and paper writing.

The written document the student prepares must include:

1. A Title. The title will be agreed on at the Dissertation Committee meeting at which the student's examination schedule is determined. The title should be general, informative and descriptive.

2. A Summary. A summary, or abstract, no more than one page in length, should communicate the major components of the document, including the overall significance of the field under consideration.

3. The Body of the Document. This should be an original, independently generated paper. It is not a grant proposal, nor is it a thesis proposal. The contents, especially regarding consideration of research design, may, to a large extent, be constrained by the depth of practical experience a student has in the field, and will be evaluated accordingly. The document should, however, contain all of the following components:

a. A thorough and critical review of the literature pertaining to the field of study. Literature citations throughout the document should follow the guidelines in the Graduate Thesis/Dissertation Handbook (available in the Graduate School). It is suggested that the literature review not exceed 10 pages.

b. A description of specific areas within the field where the student identifies problems, questions, or gaps in understanding, that need to be addressed. The student should present their ideas as to how these areas might be studied and why they are significant. This section should delineate clear and logical specific aims and hypotheses relating to this research area. Students are reminded that this is an original and independent document and that it is inappropriate to use existing specific aims and ideas generated by others in your laboratory. It is suggested that this part not exceed 8 pages.

c. A description of clear and logical methods that might be used to address the questions raised. Do not include detailed experimental protocols.

However, if the student has had the opportunity to accumulate research data relevant to the document, it is appropriate to include that data to demonstrate feasibility and the student's own technical competency. The student should also demonstrate understanding of the limitations of any techniques that are discussed. It is suggested that this part not exceed 10 pages.

4. A References Cited section. There is no page limit for this section.

It is expected that preparing the document and preparing for the oral examination will take about ten weeks; so planning should be initiated as early as possible. In writing an extensive, in-depth document of this sort, it is natural that the student seek advice from mentors and colleagues. Students are encouraged to use all the resources available to them, but the final document should reflect their own scientific and writing ability. Input from mentors and colleagues should be limited to the level of response one might typically give to a student who asks a question or seeks clarification of an issue after a lecture, or input that falls into the category of regular scientific discussions in the laboratory. Mentors and colleagues must not review or revise the written document before its final submission.

The Committee members will return their copies of the document, including any written comments, to the student after the oral examination.

B. Guidelines for the Oral Component

The members of the Dissertation Committee, chaired by the Dissertation Director, will conduct the oral examination.

The student presents a 15 to 20-minute synopsis of the document.

Each Committee member, in turn, asks a question. Each question is explored in depth, by follow-up questions if necessary, to the satisfaction of the Committee member who asked the question. Questioning continues until all Committee members have asked all the questions they consider

important for the evaluation process. Questions may include some or all of the following:

1. questions to assess the student's understanding of the area of research discussed in the document,
2. questions to assess the student's understanding of experimental procedures discussed in the document,
3. questions to assess the student's "general knowledge" in the area of concentration (e.g., toxicology) they plan to pursue in their dissertation research,
4. questions to clarify specific issues arising from the written document submitted by the student,
5. questions to assess the student's ability to integrate concepts from different fields of environmental research.

C. Criteria for Evaluating the Preliminary Examination

The Committee will determine the weight to be given to each of the following questions:

1. written document:
    a. is the document original and the independent work of the student?
    b. is the document clearly written and presented?
    c. does the Body of the Document adequately address the three areas outlined in Subsection A.3.a-c, above?
    d. does the document have a clearly and logically developed conceptual framework?
    e. are areas for future study clearly and logically identified?
    f. are the proposed methods or experiments well designed and appropriate for the research topic and for the level of experience of the student?

2. oral examination:
    a. did the student present a clear and well-organized synopsis of the document?
    b. were questions posed by the Committee members adequately answered, and were any problems resolved?
    c. does the student possess an adequate understanding of fundamental concepts in their general field?

The Dissertation Director will communicate the Committee's decision to the student.

XIV. Guidelines for Dissertation Proposals

A. The dissertation proposal should be written and be approved within 6 months after the end of the second year of study.

B. The proposal should be organized and should contain the following:

1. Introduction

2. Specific Aims

3. Background and Review of Literature, and Significance

4. Methods
   Discuss specific methodology for each experiment or set of experiments, including:
   a. Rationale
   b. Protocol
   c. Expected information gain
   d. Alternative plans if the result is different from that expected

5. Preliminary Data (when available)

6. References Cited

C.. A draft copy of the proposal should be distributed at least one week before the platform presentation (see D below) to each Dissertation Committee member along with time and place of platform presentation. The Program Director should be notified of the time and place of the presentation.

D. There will be a platform presentation of the dissertation proposal before the Dissertation Committee.

E. The Dissertation Committee will vote to accept, modify or reject the proposal. If not accepted, the student must rework the proposal until the Committee is satisfied.

F. When approved, the final proposal is then transmitted to the ES Program Office with the signed approval form (see Appendix - Form D).

XV. Guidelines for Annual Progress Report

A. Satisfactory progress is required each year in order to be eligible for continued financial support or to remain in the program. In the first year, the student maintaining a satisfactory grade point average, progress on course work, and selection of the Dissertation Director fulfills this requirement. In the second year, maintaining a satisfactory grade point average, progress on course work, successful completion of the Preliminary Examination, completion of the research proposal, and research progress fulfills the requirement. For the third and subsequent years, satisfactory research progress as reviewed and approved by the Dissertation Committee is required.

The student prepares and submits an annual written progress report to the Program Director for year three and each year thereafter until graduation.

B. The summary report must be limited to one single-spaced page.

C. The report should follow the outline and numbering system shown below.

1. Brief statement of the scientific goals of the project for the year.
2. Concise description of the studies conducted during the year, the results obtained and their significance. Include negative results or technical problems that may be important.
3. List publications. If there were no publications during the year, write "none."
4. List presentations. If there were no presentations, write "none."
5. Specific objectives for the coming year.

XVI. General Standards for a Dissertation

A. The dissertation must present a body of research results, which advances knowledge, is original, is thorough and makes a contribution in its field.

B. The quantity of the research, the scope of the questions asked and the quality and originality of the project must be appropriate for a doctoral level dissertation in the eyes of the Program Faculty, who are representative of the larger scientific community.

C. The dissertation must report definitive experimental results in a clear manner, even if it is not possible to interpret these results clearly.

D. A dissertation based solely on what are commonly referred to as negative results will not be acceptable. An exception may be made if such results nevertheless are an important and significant contribution to new knowledge.

E. The research of the dissertation must be of sufficient merit to be published in a respected peer-reviewed journal.

F. It is the responsibility of the Dissertation Director and of the Dissertation Committee to ensure from the beginning that a research proposal is likely to lead to a dissertation that meets these standards. Similarly, it is their responsibility to insure that only a dissertation meeting these standards is approved.

XVII. Guidelines for Dissertation Preparation

These Guidelines are intended to promote standardization, increase readability and meet the recommendations of the Graduate School for dissertation preparation. They should be used in conjunction with the *Graduate Thesis/Dissertation Handbook* issued by the WSU Graduate School.

However, flexibility exists in the formatting of dissertations, (e.g., formatting each chapter as an individual manuscript), but the format must be agreed upon by the student's advisory committee and acceptable to the Graduate School.

1. Title Page

   Use the exact format as in the *Graduate Thesis/Dissertation Handbook* (see Appendix - Form F).

2. Copyright Page

   Doctoral dissertations are often copyrighted. University Microfilms provides a copyright registration service and can handle that along with publication of the abstract. Refer to the *Graduate Thesis/Dissertation Handbook* for the format of the copyright page and to the University Microfilms brochure for information about copyrighting the dissertation.

3. Approval Sheet

   Use the exact format as in the Graduate Thesis/Dissertation Handbook (see Appendix - Form G).

4. Abstract

   The abstract should not exceed 350 words so it can be published in Dissertation Abstracts.

5. Table of Contents

   Items to be included in the Table of Contents with their page numbers include the following: Abstract, Table of Contents, List of Abbreviations, Preface (or Acknowledgments), main subdivisions of the dissertation (e.g., Introduction, Methods, Results, Discussion, etc.), Appendix(es). If the main subdivisions have separately-named sections within them, these may also be included in the contents. See the sample Table of Contents at the end of this section.

6. List of Illustrations

   This list consists of the figure numbers (Arabic numerals), the complete legends (or a shortened form if the legend is long) of all figures and the page numbers.

7. List of Tables

   This list gives the table numbers (use Arabic Not Roman numerals) with their respective titles and page numbers. The titles as shown in this list should agree exactly with the wording above the table themselves.

8. Preface, Acknowledgments, or Dedication

   If the writer has nothing significant to say about the study that is not covered in the main body of the dissertation then this section should be entitled Acknowledgments, or Dedication depending on the purpose.

9. The Text

The text begins with an introduction, which includes a rationale and the background for the study. While varying from field to field, the Introduction may include an extensive literature review. Alternatively, the literature review could be in a separate section or included in the Discussion. Check with your advisor about this. Materials and Methods, Results, Discussion, and References Cited follow the Introduction.

10. Figures

Figures and legends should be placed on separate pages.

11. List of Abbreviations

In some areas of specialization abbreviations abound. If this is the case, a list of these abbreviations should be included in the dissertation either at the beginning or, more commonly, as an Appendix. When an abbreviation is first used in the text it should be spelled out completely and the abbreviation placed in parentheses after the complete spelling. Thereafter, the abbreviation can be used alone. The list of abbreviations should be in alphabetical order.

12. References Cited

The References Cited section includes only works that have been referred to or cited in the text. It may include references to journal articles, books or chapters in books, unpublished monographs or articles, theses, government reports, etc. Proper citations are very important. Examples are provided below. For further explanation and detailed examples, see "Instructions for Contributors" contained in the first issue each calendar year of the journal *Environmental Toxicology and Chemistry*, and articles published in that journal.

Books. Author AB, Author CD. 2001. Title of Book. Publisher, City, ST, Country.

Book articles. Author AB, Author CE, Author EF. 2001. Title of article. In Anderson AB, Jones CD, Smith EF, eds, Title of Book, 2nd ed, Vol 1 – Toxicology. Publisher, City, ST, Country, pp. 00-00.

Computer Programs and Databases. Title (ACRONYM) (database). 2001. Company, City, ST, Country.

Journal articles. Author AB, Author CD, Author EF. 2001. Title of article. *J Agric Food Chem* 22:11-33. (or in press, see below). Do not include issue number of journal.

Proceedings. Author AB, Author CE. 2001. Title of article. Proceedings, Name of Conference, City, ST, Country, Date (month, days, year), pp. 00-00.

Reports. Author AB. 2001. Title of report. WHO 600/90/432. Final/Technical Report. Agency (spelled out), City ST, Country. If no authors are listed, put name of agency first.

Theses. Author AB. 2001. Title of thesis. PhD thesis. University, City, ST, Country.

Websites other than electronic journals should be mentioned parenthetically in the text.

Number and list literature cited as it appears in the text. Number literature cited in tables last. Use capitalized zip-code abbreviations for states. For abbreviations of journal titles, use BIOSIS *Serial Sources*.
Names of journals not listed there should be written out in full. Note the limited use of capitals in journal abbreviations in *Environmental Toxicology and Chemistry*.

Unpublished data, personal communications and articles in preparation are not acceptable as literature citations and should be referred to parenthetically in the text, e.g., (J.A. Smith, personal communication). *Verify all personal communications with the source of the information and obtain approval for use of the author's name*.

Articles that are "in press" may be so designated in the references. *An article is not properly referred to as "in press" unless it has been accepted for publication*. The journal in which an "in press" article will appear must be included in the literature citation. Authors should include copies of all articles listed as "in press" when the manuscript is submitted.

Conclusion:

Use these guidelines and the *Graduate Thesis/Dissertation Handbook* as your primary source when preparing your dissertation thesis. If questions about style arise which are not covered in these two documents, then check with the ES Program Office.

Be certain to obtain signatures from all members of the Committee on both the approval sheet (see Appendix - Form G) that is bound with the dissertation and the Program form "Acceptance of Dissertation" (see Appendix - Form H).

Sample---Table of Contents of a Dissertation

XVIII. Guidelines for Dissertation Defense

A. Final copies of the dissertation must be in the hands of the Dissertation Committee, including the external reader and the Program Director, at least one week before the defense.

B. All voting members of the Dissertation Committee must attend the defense. Should these conditions not be met for the desired date then the defense should be rescheduled, if possible. In the event that the defense must proceed without a committee member, then that member must be permitted to have input and vote, if appropriate, on the dissertation and/or the defense proceedings.

C. The Dissertation Director is the chair of all proceedings at the defense.

D. The dissertation defense should be focused mainly on the contents of the dissertation not knowledge of the field in general. It is the responsibility of the Dissertation Director to keep the questions directed toward the dissertation.

E. The defense will consist of three parts:

1. An oral presentation by the candidate of the dissertation research in a seminar open to the public. All pertinent discussion and questions from anyone in attendance must be exhausted.

2. This is followed by an examination of the candidate by the Dissertation Committee based on the written dissertation and the oral presentation. Program Faculty members may attend this part but are not permitted to participate, ask questions, or make comments. To facilitate Program Faculty attendance, this second part of the examination should be continued in the same room or in a sufficiently large room located in close proximity.

3. Finally, the Dissertation Committee will meet in closed session to decide whether or not to recommend the candidate to the Program Director for approval of the dissertation. Neither the candidate nor other Program Faculty members may be present during these deliberations.

F. After the Dissertation Committee has unanimously recommended the candidate, the Program Director recommends to the Dean of the School of Graduate Studies that the degree be awarded.

XIV. Timetable for Graduation

A. Degrees are awarded three times a year at commencement ceremonies in Spring, Summer, and Fall. Students may participate in the next commencement ceremony following their actual graduation date or have the diploma mailed to them. The Program will give each graduating student a hood.

B. There are required filing periods each semester for application for the degree.
Should the degree requirements not be completed during the semester in which the student applied for the degree, a new application must be filed.

C. The form signed by the Dissertation Director giving permission to write the dissertation should be submitted to the Program Office before beginning to write.

D. Students should be registered in the semester the degree is conferred.

E. It is the combined responsibility of the student and the Dissertation Director to schedule completion of all Program requirements in time to participate in the June or December graduation ceremonies. Check with the Graduate School for all deadlines.

F. A final revised copy of the dissertation should be in the hands of the Dissertation Committee in time to conduct the dissertation defenses no later than four weeks before graduation.

G. After approval by the Dissertation Committee, the approved final copy with all corrections and appropriately signed must be approved by the Program Director and the Dean of the Graduate School.

H. Note that final copies of dissertations are due at the Graduate School 30 days after the graduation date of each quarter. *No exceptions will be made to this requirement*.

I. One unbound copy of the approved final copy of the dissertation appropriately signed by the Dissertation Committee, and approved by the Program Director and the Dean of the Graduate School, must be submitted to the Graduate School.

J. One copy of the approved dissertation should be placed in the Program Office and another one given to the Dissertation Director. The Program will pay for the cost of binding the copy for retention in the Program Office.

K. Students are responsible for making all corrections and copies of their dissertations. They are also responsible for appropriate distribution of copies of the final dissertation. Please do not ask the Program Secretary to complete these tasks.