Graduate Student and Advisor Checklist
DOCTOR OF PHILOSOPHY PROGRAM
Environmental Science and Technology
Personal Checklist

	(due) **Date**	**Form**
_____	admitted to program	
_____	Advisory Committee formed *(end of 2nd semester)*	
_____	Proposed Plan of Study form in file *(end of 2nd semester)*	**ENST FORM**
_____	Research Proposal in file *(end of 2nd year)*	**ENST FORM**
_____	Admission conditions (if any) satisfied	
_____	Preliminary/Comprehensive examination held *(end of 3rd year)*	**ENST FORM**
_____	Admission to Candidacy form submitted to Grad School (cc ENST)	**GRAD SCHOOL FORM**
_____	Admission to candidacy approved by Grad School	*Must register each semester thereafter.*
_____	Course requirements completed:	

_____   Application for Diploma form submitted to Grad School   **GRAD SCHOOL FORM**
(Early in semester in which student expects to complete
degree requirements by published deadline.)
_____   Appointment of Doctoral Examining Committee form submitted to Grad School **GRAD SCHOOL FORM**
(At least 3 months prior to final exam and before deadline.)
_____   Dissertation completed
_____   Final examination held
_____   Report of Examining Committee form submitted to Grad School (cc ENST)   **GRAD SCHOOL FORM**
_____   Signed dissertation submitted to Grad School
_____   Dissertation copy (pdf) submitted to ENST Grad. Coordinator for student file

ENST Ph.D. Graduate Program - Summary of Requirements				
Area of Specialization	**Soil and Watershed Sciences**	**Ecological Technology Design**	**Wetland Science**	**Ecosyst. Health & Nat. Res. Mgmt**
Ph.D. Dept Admission	M.S. Degree in a closely related field1; All admission requirements for the M.S. degree (ie Basic Science Requirement, GRE, etc).			
Grad School Requirements	12 credits of dissertation research (899); A dissertation based on original research			
ENST Core Requirements	ENST 602 - Research Principles and Methodology in Environmental Science and Technology (3 credits) ENST 702 - Communication and Professional Development in Environmental Science and Technology (2 credits) ENST 798 Graduate Seminar (2 semesters – 2 credits) Two graduate level statistics courses (from among, or equivalent to, those on approved list) 2;			
Specialization Requirements	Completion of M.S. specialization requirement plus one graduate level course on chemistry or biochemistry3 and at least one additional graduate level course in chemistry, biochemistry, physics, mathematics, engineering, or computer science. All courses to be approved by the advisory committee.	Completion of M.S. specialization requirement plus one semester of graduate level modeling and one additional graduate level course in ecology, ecological design or ecological engineering. All courses to be approved by the advisory committee.	Completion of M.S. specialization requirement plus one graduate level course in modeling; two additional graduate level courses from within the areas of Ecology, Soil Science, or Hydrology. All courses to be approved by the advisory committee.	Completion of M.S. specialization requirement plus three additional graduate level courses in Ecosystem Health and Natural Resource Management. All courses to be approved by the advisory committee.

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1 In special cases, exceptional students may be admitted to a Ph.D. program without first completing an M.S. degree. These students should have an exceptional academic record and test scores and should have demonstrated significant research experience during their B.S. program (such as completion of a research based honors thesis.)

2 Approved Statistics Courses:
BIOM 601, Biostatistics I (4)
BIOM 602, Biostatistics II (4)
BIOM 603, Biostatistics III (4)
BIOM 621, Applied Multivariate Statistics (3)
GEOG606, Quantitative Spatial Analysis (3)
GEOL 651, Statistics for Geoscientists
GEOL 789C, Advanced Data Analysis Workshop
BIOL 709D, Statistics and Modeling for Biologists
MEES 604, Biometry
SURV 615, Statistical Methods I
MEES 608R, Applied Baysian Statistics
MEES 708M, Environmental Statistic II

3 This could be Physical Chemistry, Biochemistry, or some other grad level course in chemistry offered in such departments/programs as MEES (Modeling Chemical Equilibrium in Natural Waters), ENCE (Chemistry of Natural Waters) or GEOL (Principles of Biogeochemistry), etc.

Ph.D. PLAN OF STUDY

Environmental Science and Technology

Candidate: _____   Student Number: _____

Check Current Program:
_____ Soil & Watershed Sciences
_____ Ecological Technology Design
_____ Wetland Science
_____ Ecosystem Health and Natural Resource Management

I. Admission Requirements: (Check if completed)
_____ a. Calculus (1 semester)
_____ b. Basic science (20 credits) (Chem., Biochem., Physics, Biology, Math beyond Calculus)
_____ c. Other provisions: (if any) _____

II. M.S. Course Requirements (check if completed:
   A. Soil & Watershed Sciences Candidates
      _____ a. Must have completed a minimum of twelve credits of graduate level soil science courses. The 12 credits must be earned in any four of the following five areas: soil chemistry, soil physics, soil pedology, soil biology, soil fertility.
   B. Ecological Technology Design Candidates
      _____ a. Six credits of graduate level courses in ecology
      _____ b. Six credits of graduate level courses in ecological design or related engineering courses.
   C. Wetland Science Candidates
      _____ a. Twelve (12) credits from a list of approved graduate level courses in Ecology, Soil Science and Hydrology, with a minimum of 3 credits from each of these three groups.
   D. Ecosystem Health & Natural Resources Management Candidates
      _____ a. Twelve (12) credits of graduate level courses, including ENST604 (3 credits) and 9 additional credits in Ecosystem Health and Natural Resource Management.

III. Ph.D. Course Requirements (List course number. Must be 400 level or higher):
   A. Soil & Watershed Science Candidates
      _____ a. one graduate level course on chemistry or biochemistry
      _____ b. one additional graduate level course in chemistry, biochemistry, physics, mathematics, engineering, or computer science..
   B. Ecological Technology Design Candidates
      _____ a. one semester of graduate level systems modeling
      _____ b. one additional graduate level course in ecology, ecological design or ecological engineering.
   C. Wetland Science Candidates
      _____ a. one graduate level course in modeling
      _____ b. two additional graduate level courses from within the areas of Ecology, Soil Science, or Hydrology.
   D. Ecosystem Health and Natural Resources Management Candidates
      _____ a. three additional graduate level courses in Ecosystem Health and Natural Resource Management that have been approved by the advisory committee.
   D. All candidates must complete these courses:
      _____ a. ENST602 (may be taken during the MS program)
      _____ b. ENST702 (may be taken during the MS program)
      _____ c. Seminar (798) -- 2 Credits (Entrance and Exit)
      _____ d. Research (899) -- 12 Credits
      _____ e. Two graduate level statistics courses
      _____ f. A total of 50 credits in post BS courses (excluding research)

IV. List by semester <u>all course work</u> completed and presently scheduled for the Ph.D. degree. The program shown must meet all requirements outlined above (Parts I-III). A minimum of 50 credit hours, exclusive of research, is generally scheduled beyond the B.S. level.

Post BS courses completed prior to beginning your doctoral program at UMD

Year	Semester	Course No.	Title	Credit	Grade

Courses to be completed during your doctoral program at UMD

Year	Semester	Course No.	Title	Credit	Grade

Approved: _____ Advisor

              _____ Member, Advisory Committee

              _____   "   "   "

              _____   "   "   "

              _____   "   "   "

RESEARCH PROPOSAL COVER PAGE
Environmental Science and Technology

Candidate: _____ Student Number: _____

Check Current Program: _____ M.S.   _____ Ph.D.
    _____ Soil & Watershed Sciences
    _____ Ecological Technology Design
    _____ Wetland Science
    _____ Ecosystem Health and Natural Resources Management

Title: _____

_____

_____

Indicate whether or not the project involves any of the following:

    ___ Yes   ___ No   Human subjects
    ___ Yes   ___ No   Animal subjects
    ___ Yes   ___ No   Radioactive materials
    ___ Yes   ___ No   Genetically engineered organisms
    ___ Yes   ___ No   Biological materials
    ___ Yes   ___ No   Select Agent Toxins
    ___ Yes   ___ No   Scientific diving
    ___ Yes   ___ No   Boats Used in Research
    ___ Yes   ___ No   Chemicals

(Any Yes responses may require completion of University forms or training.)

Approval: The advisory committee has reviewed the attached research proposal and feels it is appropriate and sufficient for the degree program.

1. _____   4. _____
   (Advisor)

2. _____   5. _____

3. _____   6. _____

ENST Committee Report Form
Doctor of Philosophy Candidate
Environmental Science and Technology

Candidate: _____   Advisor: _____

I. Comprehensive Examination[4]   Date _____

    A. Committee Action
       [ ] Passed   [ ] Failed

       Date of Second Examination (if needed) _____
       [ ] Passed   [ ] Failed

    B. Examination Committee (signatures)

1. _____, Committee Chair

2. _____

3. _____

4. _____

5. _____

6. _____

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[4] NOTE: A <u>written</u> exam followed by an <u>oral comprehensive examination</u> is required near the end of the student's course program. Both examinations must be scheduled within a one-month period, and must be passed prior to admission to candidacy for the Ph.D. The student must be admitted to candidacy at least six months before the date on which the degree will be conferred.

THE GRADUATE SCHOOL

Statement of Mutual Expectations For
Graduate Assistants and Supervisors

By providing professional experience and mentorship, graduate assistantships are an integral part of the education of graduate students. A Statement of Mutual Expectations (SME) outlines in writing the nature of an assistantship and its supervision. It is not a formal contract, but rather a structured conversation to ensure that a graduate student and their supervisor share a clear understanding of what to expect from each other. The Graduate School requires supervisors to meet with the student at the start of their assistantship and at least once a year going forward, and are encouraged to use this template to structure this meeting and to record the understanding. Given the wide variety of research, administrative, and teaching assistantships, this template is meant to be customized as needed.

Student Name		Assistantship Title	
Student ID Number		Avg. hours/week	
Supervisor Name		Start Date	
Supervisor Title		End Date	

Responsibilities of Assistant: Include the most important duties of the assistantship. Potential topics include specific responsibilities, goals, deliverables (if any) and how they are to be submitted. For teaching assistantships (whether serving as the instructor of record or in a support role), include the course(s) and section(s).

Responsibilities of Supervisor: Specify the responsibilities of the supervisor. Potential topics include how the graduate assistant will receive continuing guidance and support, times when the supervisor will be available to meet, any training schedule, and supplies to be made available.

Scheduling: When the assistantship is to be performed, including work hours, regularly scheduled meetings, degree of flexibility in work schedule, and personal and sick leave procedures.

Worksites: Locations where the assistantship is to be performed. If a significant portion of the responsibilities will be satisfied remotely, supervisors should provide guidance on expectations and limitations.

Health & Safety: If there are in-person meetings, what procedures are required to ensure the health and safety of everyone? See https://umd.edu/4Maryland/health-plan for details.

Procedures and Best Practices: Required training, standard methods, required record-keeping, security protocols, and/or procedures for ordering supplies. For teaching assistantships, see Appendix A.

Professional Development and Individual Development Plan: Topics include skills to be developed during the appointment, training resources other than those provided directly by the supervisor, whether publications will result from the student's work and, if so, expectations for authorship, and/or expectations for travel. See https://academiccatalog.umd.edu/graduate/policies/school-policies/#text for further guidance on co-authorship for faculty-student interactions and collaborations.

Organizational Culture: Considerations such as office space, workspace, dress codes, appropriate titles and means of address, and/or team norms.

Other comments:

Please note that all graduate assistantships are subject to University of Maryland policies and procedures as set forth in the Graduate Catalog: academiccatalog.umd.edu/graduate/policies/policies-graduate-assistantships. Nothing in the SME should contradict them, but if they do, the Graduate Catalog policies and procedures govern.

We have met in person or synchronously online to review and discuss this agreement on the date noted below. The graduate assistant was given an opportunity to ask and receive answers to any questions about the assistantship:

Student Signature		Supervisor Signature	
Date		Date	

If meeting online, you can save the document as a PDF and then add your digital signatures. For instructions visit helpx.adobe.com/reader/using/sign-pdfs.html

Appendix A
Graduate Teaching Assistantship Guidance

Some teaching assistants serve as the instructor of record, while most support a course by leading discussion or lab meetings, grading student work, and assisting with course logistics. This list provides additional topics for the teaching assistant and supervising faculty member to discuss.

- What are expectations about TA presence in class meetings?
- How can the TA and instructor work together to create and contribute to a positive and inclusive climate for the students?
- If the TA will be grading student work…
    - What are the grading deadlines?
    - What standards (e.g., rubrics) and procedures will be used to ensure transparency, accuracy, and consistency?
- Student communication…
    - How should the students contact the TA?
    - What are expectations for TA response times to student emails, phone messages, etc.?
- University policies for undergraduate courses – see go.umd.edu/ug-policy
    - How will students be made aware of these policies?
    - How will academic integrity be ensured?
    - What conduct is prohibited and what conduct is allowed when using UMD computing resources?
    - How will student information covered by the Federal Educational Rights & Privacy Act (FERPA) be protected?
    - What are the expectations for student conduct?
    - What are the policies related to sexual misconduct, discrimination, civility, and safety?
    - How will we ensure that course materials meet standard accessibility standards?
    - What is the process for identifying and offering academic accommodations for students?
    - What constitutes an excused absence and how will they be accommodated?
    - What other rights are guaranteed for students in the course?
- What are the expectations related to professional conduct?
- What resources might the TA refer students to? See tltc.umd.edu/supporting-whole-student for guidance.
- To whom should the TA report concerns about student conduct or wellbeing?
- How should the TA communicate with their supervisor if an illness or other unavoidable absence conflicts with their duties?
- What training or support is recommended or required? See tltc.umd.edu for upcoming workshops.