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

<table>
<thead>
<tr>
<th>(due) Date</th>
<th>Form</th>
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<tbody>
<tr>
<td>admitted to program</td>
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<tr>
<td>Advisory Committee formed (end of 2nd semester)</td>
<td>ENST FORM</td>
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<tr>
<td>Proposed Plan of Study form in file (end of 2nd semester)</td>
<td>ENST FORM</td>
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<tr>
<td>Research Proposal in file (end of 2nd semester)</td>
<td>ENST FORM</td>
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<tr>
<td>Admission conditions (if any) satisfied</td>
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<tr>
<td>Preliminary/Comprehensive examination held (end of 3rd year)</td>
<td>ENST FORM</td>
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<tr>
<td>Admission to Candidacy form submitted to Grad School (cc ENST)</td>
<td>GRAD SCHOOL FORM</td>
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<tr>
<td>Admission to candidacy approved by Grad School</td>
<td>Must register each semester thereafter.</td>
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<tr>
<td>Course requirements completed:</td>
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### ENST Ph.D. Graduate Program - Summary of Requirements

<table>
<thead>
<tr>
<th>Area of Specialization</th>
<th>Soil and Watershed Sciences</th>
<th>Ecological Technology Design</th>
<th>Wetland Science</th>
<th>Ecosystem Health &amp; Natural Resource Management</th>
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<tbody>
<tr>
<td>Ph.D. Dept Admission</td>
<td>M.S. Degree in a closely related field; All admission requirements for the M.S. degree (i.e., Basic Science Requirement, GRE, etc.)</td>
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<tr>
<td>Grad School Requirements</td>
<td>12 credits of dissertation research (899); A dissertation based on original research</td>
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<tr>
<td>ENST Core Requirements</td>
<td>ENST 602 - Research Principles and Methodology in Environmental Science and Technology (3 credits)</td>
<td>ENST 702 - Communication and Professional Development in Environmental Science and Technology (2 credits)</td>
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<td>ENST 798 Graduate Seminar (2 semesters – 2 credits)</td>
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<td></td>
<td>Two graduate level statistics courses (from among, or equivalent to, those on approved list)</td>
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<tr>
<td>Other ENST Requirements</td>
<td>Students are expected to complete a minimum of 50 credits beyond the B.S. degree (In addition to research credits 898 and 899)</td>
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<td>Specialization Requirements</td>
<td>Completion of M.S. specialization requirement plus one semester of graduate level physical chemistry or biochemistry 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.</td>
<td>Completion of M.S. specialization requirement plus one semester of graduate level systems modeling and one additional graduate level course in ecology, ecological design or ecological engineering. All courses to be approved by the advisory committee.</td>
<td>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.</td>
<td>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.</td>
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</table>

| 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 |
| ENST Committee Report Form returned to dept. | ENST FORM |
| Signed dissertation submitted to Grad School | |
| Dissertation copy (pdf) submitted to ENST Grad. Coordinator for student file on MEGS | |

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)
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. 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. All courses to be approved by the advisory
   committee.

III. Ph.D. Course Requirements (List course number. Must be 400 level or higher):
A. Soil & Watershed Science Candidates
   _____ a. one semester of graduate level physical 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)
   _____ a. Seminar (798) -- 2 Credits (Entrance and Exit)
   _____ b. Research (899) -- 12 Credits
   _____ c. Two graduate level statistics courses
IV. List by semester all course work 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

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Course No.</th>
<th>Title</th>
<th>Credit</th>
<th>Grade</th>
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Courses to be completed during your doctoral program at UMD

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Approved: __________________________________ Advisor

_____________________________ Member, Advisory Committee

“ “ “

“ “ “

“ “ “

PhDForm2.doc
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

A. Committee Action
   [ ] Passed  [ ] Failed
   Date of Second Examination (if needed) ________________________________
   [ ] Passed  [ ] Failed

B. Examination Committee (signatures)
   1. ____________________________, Committee Chair
   2. ____________________________, Graduate School Representative
   3. ____________________________  5. ____________________________
   4. ____________________________  6. ____________________________

II. Dissertation Title and Seminar Dates

A. Dissertation Title: ______________________________________________________
   ______________________________________________________

B. Entrance Seminar Date _________________________________________________

C. Exit Seminar Date _____________________________________________________

III. Final Oral Examination (defense) Approval

A. Date ____________________________

B. Committee Chair
   1. ____________________________, Committee Chair
   2. ____________________________, Graduate School Representative
   3. ____________________________  5. ____________________________
   4. ____________________________  6. ____________________________

IV. Anticipated termination date of student’s appointment ____________________

Copies of this form should go to:
1. ENST Grad Office (Tina Scites)
2. ENST Business Office (Ruth Koster)

NOTE: A written exam followed by an oral comprehensive examination 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.

* A form received from the graduate school documenting the defense and approval of the examining committee is also required to be completed and submitted.