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) ENST FORM

_____ Proposed Plan of Study form in file (end of 2nd semester)

_____ 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
<table>
<thead>
<tr>
<th>Area of Specialization</th>
<th>Soil and Watershed Sciences</th>
<th>Ecological Technology Design</th>
<th>Wetland Science</th>
<th>Ecosyst. Health &amp; Nat. Res. Mgmt</th>
</tr>
</thead>
<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 (ie Basic Science Requirement, GRE, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grad School Requirements</td>
<td>12 credits of dissertation research (899); A dissertation based on original research</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 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; |
| Other ENST Requirements | Students are expected to complete a minimum of 50 credits beyond the B.S. degree (In addition to research credits 799, 898 and 899) |
| Specialization Requirements | Completion of M.S. specialization requirement plus one graduate level course on chemistry or biochemistry 3 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. |

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 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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Courses to be completed during 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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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. _____________________________________
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. ___________________________________

3. ___________________________________

4. ___________________________________

5. ___________________________________

6. ___________________________________

---

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.