# Graduate Student and Advisor Checklist

**MASTER OF SCIENCE PROGRAM**

**Environmental Science and Technology**

## Personal Checklist

<table>
<thead>
<tr>
<th>(due) Date</th>
<th>Form</th>
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<tbody>
<tr>
<td>_____</td>
<td>admitted to program</td>
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<tr>
<td>_____</td>
<td>Advisory Committee formed <em>(end of 2nd semester)</em></td>
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<tr>
<td>_____</td>
<td>Proposed Plan of Study form in file <em>(end of 2nd semester)</em></td>
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<tr>
<td>_____</td>
<td>Research Proposal in file <em>(end of 2nd semester)</em></td>
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<tr>
<td>_____</td>
<td>Admission conditions (if any) satisfied</td>
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<tr>
<td>_____</td>
<td>Course requirements completed:</td>
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<tr>
<td>_____</td>
<td>Application for Diploma form submitted to Grad School</td>
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<tr>
<td>_____</td>
<td>Thesis completed</td>
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<tr>
<td>_____</td>
<td>Nomination of Thesis Examining Committee form submitted to Grad School (cc ENST)</td>
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<tr>
<td>_____</td>
<td>Approved Program for the Master of Science form submitted to Grad School (cc ENST)</td>
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<tr>
<td>_____</td>
<td>Final examination held</td>
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<tr>
<td>_____</td>
<td>Report of Examining Committee form submitted to Grad School (cc ENST)</td>
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<tr>
<td>_____</td>
<td>Signed thesis submitted to Grad School</td>
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<tr>
<td>_____</td>
<td>Thesis copy (pdf) submitted to ENST Grad. Coordinator for student file on MEGS</td>
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*MSForm1.doc*
## ENST M.S. 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>Ecosyst. Health &amp; Nat. Res. Mgmt</th>
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<tbody>
<tr>
<td>M.S. Dept Admission</td>
<td>B.S. in related field; Undergraduate cumulative GPA of 3.0; GRE; Basic Science Requirement (a minimum of one semester of Calculus and 20 credits in Chemistry, Physics, Biology or Mathematics [beyond Calculus I]).</td>
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<tr>
<td>Grad School Requirements</td>
<td>30 semester hours beyond the B.S. degree, including six hours of thesis research credit (799). Of the 24 hours required in graduate courses, at least 12 must be earned in a major area. A minimum of 12 credit hours must be earned at the 600 level or above.</td>
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### 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)
One graduate level statistics course (from among, or equivalent to, those on approved list) 1.

### Specialization Requirements
- 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. All courses to be approved by the advisory committee.
- Six credits of graduate level courses in ecology and six credits of graduate level courses in ecological design or related engineering courses. All courses to be approved by the advisory committee.
- 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. All courses to be approved by the advisory committee.
- Twelve (12) credits of graduate level courses, including ENST6043 (3 credits) and 9 additional credits in Ecosystem Health and Natural Resource Management. All courses to be approved by the advisory committee.

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1. **Approved Statistics Courses:**
   - BIOM 601  Biostatistics I (4)
   - MEE 608R, Applied Bayesian Statistics
   - BIOM 602  Biostatistics II (4)
   - MEE 708M, Environmental Statistics
   - BIOM 621  Applied Multivariate Statistics (3)
   - GEOG 606  Quantitative Spatial Analysis (3)
   - GEOL 651, Statistics for Geoscientists
   - GEOL 789C, Advanced Data Analysis Workshop
   - BIOL 709D, Statistics and Modeling for Biologists
   - MEE 604, Biometry

2. **Approved Courses for Wetland Science Specialization**
   - ENST 650  Wetland Ecology (3)
   - ENST 6xx Created and Restored Wetlands (3)
   - ENST 460 Wildlife Management (3)
   - BSCI 464  Microbial Ecology (3)
   - ENST 460  Plant Ecology (3)
   - MEES 610  Land Margin Interactions (4 credits)
   - ENST 4xx  Created and Restored Wetlands (3)
   - MEES 400  Environmental Plant Physiology
   - MEES 611  Estuarine Systems Ecology (3 credits)
   - MEES 645  Ecology and Management of Wetland and Submersed Aquatic Vegetation Systems (3)

3. **Soils**
   - ENST 430**  Wetlands Soils (3)
   - ENST 421  Soil Chemistry (4)
   - ENST 721  Advanced Soil Chemistry (3)
   - ENST 414 Soil Morphology, Genesis, and Classification (4)

4. **Hydrology**
   - ENST 417 Soil Hydrology and Physics (3)
   - ENCE 431 Hydrologic Engineering (3)
   - ENCE 432  Ground Water Hydrology (3)
   - ENCE 630  Environmental and Water Resource Systems I (3)
   - GEOL 451  Groundwater Geology (3)
   - GEOL 452  Watershed and Wetland Hydrology (3)
   - GEOL 652  Advanced Watershed and Wetland Hydrology (3)

**As part of the continued reorganization of the ENST department, these courses are being reorganized and will also be offered at the 600 level**

3. ENST 604 - Advanced Ecosystem Health and Natural Resource Management
M.S. 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 Resources Management

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

II. Course Requirements (List course number; must be 400 level or higher.):

   A. All candidates must complete these courses:
      _____ a. ENST798 Seminar -- 2 Credits (Entrance and Exit)
      _____ b. ENST799 Research -- 6 Credits
      _____ c. ENST602 -- 3 Credits
      _____ d. ENST702 -- 2 Credits
      _____ e. One approved graduate level course in statistics -- 3 Credits
      _____ f. 600+-level courses – total of 12 credits or more

   B. 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.

   C. 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.

   D. 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.

   E. 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. List by semester all course work completed and planned for the M.S. degree. All M.S. programs must have a minimum of 12 credits of 600+-level courses\(^4\) and a minimum total of 30 credits of 400+-level courses beyond the B.S. degree (of which, no more than 6 credits of 799 can be included among the 30).

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Course No.</th>
<th>Title</th>
<th>Credit</th>
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Approved: ________________________________ Advisor

______________________________ Member, Advisory Committee

______________________________  “  “  “

______________________________  “  “  “

______________________________  “  “  “

Date __________________________

\(^{4}\) Research credits (ENST799) do not count toward the 12 credits of 600+ level courses.
RESEARCH PLAN/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. ____________________________