Graduate Student and Advisor Checklist

MASTER OF SCIENCE 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 semester)*** **ENST FORM**

\_\_\_\_\_ Admission conditions (if any) satisfied

\_\_\_\_\_ Course requirements completed:

\_\_\_\_\_ Application for Diploma form submitted to Grad School **GRAD SCHOOL FORM**

\_\_\_\_\_ Thesis completed

\_\_\_\_\_ Nomination of Thesis Examining Committee form submitted to Grad School (cc ENST) **GRAD SCHOOL FORM**

\_\_\_\_\_ Approved Program for the Master of Science form submitted to Grad School (cc ENST) **GRAD SCHOOL FORM**

\_\_\_\_\_ Final examination held

\_\_\_\_\_ Report of Examining Committee form submitted to Grad School (cc ENST) **GRAD SCHOOL FORM** *Form sent to advisor from Grad School*

\_\_\_\_\_ Signed thesis submitted to Grad School

\_\_\_\_\_ Thesis copy (pdf) submitted to ENST Grad. Coordinator for student file on MEGS

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| **ENST M.S. Graduate Program - Summary of Requirements** | | | | |
| **Area of Specialization** | **Soil and Watershed Sciences** | **Ecological Technology Design** | **Wetland Science** | **Ecosyst. Health & Nat. Res. Mgmt** |
| M.S. Dept Admission | 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]). | | | |
| Grad School Requirements | 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 | | | |
| 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]](#footnote-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[[2]](#footnote-2) 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 ENST604[[3]](#footnote-3) (3 credits) and 9 additional credits in Ecosystem Health and Natural Resource Management. All courses to be approved by the advisory committee. |

**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) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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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.

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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]](#footnote-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).

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Approved: Advisor

Member, Advisory Committee

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Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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# 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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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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.

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(Advisor)

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Approved Statistics Courses:

   BIOM 601 Biostatistics I (4) GEOL 651, Statistics for Geoscientists

   MEES 608R,Applied Baysian Statistics

   BIOM 602 Biostatistics II (4) GEOL 789C,Advanced Data Analysis Workshop

   MEES 708M,Environmental Statistic II

   BIOM 603 Biostatistics III (4) BIOL 709D,Statistics and Modeling for Biologists

   BIOM 621 Applied Multivariate Statistics (3) MEES 604,Biometry

   GEOG606 Quantitative Spatial Analysis (3) SURV 615,Statistical Methods I [↑](#footnote-ref-1)
2. Approved Courses for Wetland Science Specialization

   **Ecology**

   ENST 650 Wetland Ecology (3) ENST 6xx Created and Restored Wetlands (3)

   ENST 460 Wildlife Management (3) BSCI 464 Microbial Ecology (3)

   BSCI 460 Plant Ecology (3) MEES 610 Land Margin Interactions (4 credits)

   PLSC 400 Environmental Plant Physiology MEES 611 Estuarine Systems Ecology (3 credits)   
   MEES 645 Ecology and Management of Wetland and Submersed Aquatic Vegetation Systems (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)

   **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 [↑](#footnote-ref-2)
3. ENST 604 - Advanced Ecosystem Health and Natural Resource Management [↑](#footnote-ref-3)
4. Research credits (ENST799) do not count toward the 12 credits of 600+ level courses. [↑](#footnote-ref-4)