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

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;			
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 courses2 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.

1 Approved Statistics Courses:

BIOM 601 Biostatistics I (4)
MEES 608R,Applied Baysian Statistics
BIOM 602 Biostatistics II (4)
MEES 708M,Environmental Statistic II
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

2 Approved Courses for Wetland Science Specialization

Ecology

ENST 650 Wetland Ecology (3)
ENST 460 Wildlife Management (3)
BSCI 460 Plant Ecology (3)
PLSC 400 Environmental Plant Physiology
MEES 645 Ecology and Management of Wetland and Submersed Aquatic Vegetation Systems (3)
ENST 6xx Created and Restored Wetlands (3)
BSCI 464 Microbial Ecology (3)
MEES 610 Land Margin Interactions (4 credits)
MEES 611 Estuarine Systems Ecology (3 credits)

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

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).

Year	Semester	Course No.	Title	Credit	Grade

Approved: ______________________________________ Advisor

______________________________________ Member, Advisory Committee

______________________________________ " " "

______________________________________ " " "

______________________________________ " " "

Date ___________________________

MSForm2.doc

[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. _______________________________________
(Advisor)

2. _______________________________________

3. _______________________________________

4. ___________________________________

5. ___________________________________

6. ___________________________________

THE GRADUATE SCHOOL

Updated October, 2021

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	
Student ID Number	
Supervisor Name	
Supervisor Title	

Assistantship Title	
Avg. hours/week	
Start Date	
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	
Date	

Supervisor Signature	
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.