

**Department of Environmental Sciences and Engineering
Gillings School of Global Public Health
University of North Carolina at Chapel Hill
Master of Science (MS) in Environmental Sciences and Engineering
Fall 2013**

Overview:

The MS degree is intended for incoming students with a strong background in the sciences or engineering and prepares them for advanced education or careers in research, practice or management in the field of environmental sciences and engineering.

Learning Objectives:

Upon satisfactory completion of a MS degree in ESE, graduates will be able to:

- Identify sources of environmental contaminants and processes that affect the movement, fate, and health effects of such contaminants in environmental/human systems;
- Describe the rationale for and the approaches used to measure relevant properties of environmental/human systems;
- Develop and/or apply theoretical/computational models to represent important aspects of environmental/human systems and assess their uncertainty;
- Explain the relationships among scientific knowledge, exposure and risk assessment, and environmental management and policy; and
- Demonstrate written and oral communication skills related to environmental sciences and engineering issues.

The success of these learning objectives is measured by the successful completion of all degree requirements, including course work, and a comprehensive oral examination, at which time the thesis is presented and defended. Additionally, students may prepare technical reports, present their work at seminars and at national or international meetings, and publish in peer-reviewed literature.

Degree Requirements:

The requirements for the MS are governed by Graduate School requirements and include:

1. A minimum of 30 semester hours of work, which can include no more than six semester hours of transferred credit, and an epidemiology requirement (this can be fulfilled by EPID 600 or ENVR 601). Students entering from Fall 2013 onward must also complete SPHG 600 (Introduction to Public Health), offered by the School.
2. ENVR 400, the Departmental Seminar, must also be completed (15+ sessions must be attended) and is not included in these 42+ hours;
3. A minimum of 24 hours of formal graduate-level course work, which includes at least 15 credit hours of course work from the Department;
4. A minimum of three hours of ENVR 993 (Master's Thesis), which is credit earned for the preparation and defense of a thesis; and
5. A comprehensive oral or written examination.