Environmental Science M.S.
2016-2017

Environmental Science Core Requirements
The core requirements must be taken in the order listed:

STAT 5135 Applied Statistical Methods
ENSC 5530 Research Methods: Environmental Science
ENSC 6731 Graduate Seminar
Or
ENSC 6838 Research Project
Or
ENSC 6939 Master's Thesis Research

Environmental Science Thesis Option (36 hours)

STAT 5135 Applied Statistical Methods
ENSC 5530 Research Methods: Environmental Science
ENSC 6939 Master's Thesis Research
Designated electives 24 hours (maximum of six hours of 4000-level credit) and 6 hours of thesis. Electives are selected in consultation with the faculty adviser and must include at least one course from three of the following rubrics: BIOL, CHEM, GEOL or INDH. A maximum of six hours of environmental management (ENVR) courses may be included.

Environmental Science Research Project Course Option (36 hours)

STAT 5135 Applied Statistical Methods
ENSC 5530 Research Methods: Environmental Science
ENSC 6838 Research Project
Or
ENSC 6731 Graduate Seminar
Designated electives 27 hours (maximum 6 hours of 4000-level credit). Electives are selected in consultation with the faculty adviser and must include at least one course from three of the following rubrics: BIOL, CHEM, ENSC, GEOL or INDH. A maximum of six hours of environmental management (ENVR) courses may be included.

Environmental Science Specializations

Environmental Biology Specialization Electives:
Selected in consultation with adviser (24-27 hours).

BIOL 5233 Ecotoxicology
BIOL 5234 Population and Community Dynamics
BIOL 5235 Ichthyology
And

**BIOL 5215** Laboratory for Ichthyology
**BIOL 5332** Toxicology
**BIOL 5333** Industrial Microbiology
**BIOL 5531** Aquatic Toxicity Testing
**BIOL 5532** Coastal and Estuarine Ecology
**BIOL 5533** Ecological Methods
**BIOL 5534** Conservation Biology
**BIOL 5535** Neotropical Rainforest Ecology
**BIOL 5537** Limnology and Aquatic Biology
**BIOL 5931** Research Topics in Biology

**ENSC 5931** Research Topics in Environmental Science
**ENSC 5939** Independent Study in Environmental Science

Cross discipline courses (12 hours maximum) selected from: **CHEM 5431, CHEM 5535, CHEM 5731, GEOL 5331, GEOL 5333, GEOL 5532, GEOL 5631, GEOL 5632, GEOL 5931, INDH 5333, ENVR 5332, ENVR 6132.**

**Environmental Chemistry Specialization Electives:**
Selected in consultation with adviser (24-27 hours).

**CHEM 4251** Laboratory for Environmental Analysis
**CHEM 4356** Soil & Groundwater Remediation
**CHEM 5431** Contaminant Fate and Transport
**CHEM 5536** Environmental Remediation
**CHEM 5731** Environmental Organic Chemistry
**CHEM 5535** Sampling & Analysis of Environmental Contaminants
**CHEM 5631** Environmental Chemodynamics
**BIOT 5535** Environmental Biotechnology
**ENSC 5333** Fundamentals of Environmental Engineering
**ENSC 5939** Independent Study in Environmental Science

Cross discipline courses (12 hours maximum) selected from: **BIOL 5233, BIOL 5332, BIOL 5333, CHEM 5133, GEOL 5331, GEOL 5333, GEOL 5532, GEOL 5632, INDH 5333, ENVR 5332, ENVR 6132.**

**Environmental Geology Specialization Electives:**

**GEOL 4323** Soils in the Environment
**GEOL 4356** Soil and Groundwater Remediation
**GEOL 5531** Hydrology of Groundwater
**GEOL 5532** Hydrology of Surface Water
**GEOL 5632** Hazardous Materials in The Geologic Environment
**BIOL 5332**  Toxicology
**CHEM 5431**  Contaminant Fate and Transport
**CHEM 5535**  Sampling & Analysis of Environmental Contaminants

Cross-discipline courses (12 hour maximum) must be selected in consultation with faculty adviser.

**Industrial Hygiene Specialization Electives:**
**INDH 5131**  Control of Occupational and Environmental Hazards
**INDH 5233**  Recognition of Occupational Diseases
**INDH 5333**  Air Pollution
**INDH 5335**  Ergonomic Methods and Analysis Techniques
**INDH 6135**  Radiation Protection
**INDH 6232**  Analytical Methods for Evaluation of Health Hazards
**INDH 6332**  Safety Engineering
**BIOL 5332**  Toxicology

Cross-discipline (12 hour maximum) CHEM/GEOL courses must be approved in advance by the adviser.

**Safety Specialization Electives:**
**INDH 5131**  Control of Occupational and Environmental Hazards
**INDH 5334**  Human Factors Engineering
**INDH 5335**  Ergonomic Methods and Analysis Techniques
**INDH 5931**  Research Topics in Industrial Hygiene and Safety
**INDH 6232**  Analytical Methods for Evaluation of Health Hazards
**INDH 6332**  Safety Engineering

Cross-discipline (12 hours maximum) BIOL/CHEM/GEOL courses must be approved in advance by the adviser.