DEPARTMENT OF
ENVIRONMENTAL
SCIENCE & TECHNOLOGY

FOR STUDENTS MATRICULATED FALL 2018 AND AFTER

Natural Resources Management

The ENST concentration in **Natural Resources Management** is designed to teach students concepts of the environmentally sound use and management of natural resources. Ecosystems and human societies are linked in complex cycles and relationships between vegetation and wildlife, forests and cities, conservation and development. By learning to participate effectively within these cycles, we will help sustain a harmonious relationship between the environment and human activities.

ENST Core (44 credits)

			Semester Projected	Semester Taken	Final Grade
▲	**BSCI 170&171**	Principles of Molecular & Cellular Biology (F, Sp, Su; 4)			
▲	**MATH 120**	Elementary Calculus I (F, Sp, Su; 3)			
▲	**BSCI 160&161**	Principles of Ecology & Evolution (F, Sp, Su; 4)			
▲	**CHEM 131&132**	Fundamentals of General Chemistry & Lab (F, Sp, Su; 4)			
▲	**ENST 200**	Fundamentals of Soil Science (F, Sp; 4)			
▲	**ENST 233**	Introduction to Environmental Health (F, Sp; 4)			
▲	**CHEM 231&232**	Organic Chemistry I & Lab (F, Sp, Su; 4)			
▲	**PHYS 121**	Fundamentals of Physics I (F, Sp, Su; 4)			
▲	**GEOG 306**	Introduction to Quantitative Methods for the Geographic Environmental Sciences (F, W, Sp, Su; 3) -**or**-			
	BIOM 301	Introduction to Biometrics (F, W, Sp; 3)			
▲	**ENST 360**	Ecosystem Ecology (F; 4)			
◆	**ENST 389**	Professional Internship (F, Sp; 3)			

Senior Integrative Experience (F, Sp; 3) - ***Choose One***

	ENST 388	Honors Thesis Research (F, Sp; 3) -**or**-			
	ENST 470	Ideas into Impact (Sp; 3) -**or**-			
◆	ENST 472	Capstone II (F, Sp; 3) -**or**-			
	ENST 486	Senior Professional Internship (F, Sp; 3) -**or**-			
	ENST 489	Research Experience (Group or individual project) (F, Sp; 3)			

Concentration Core (9 credits)

	BSCI 222	Principles of Genetics (F, Sp, Su; 4)			
	ENST 214	Introduction to Fish and Wildlife Sciences (Sp; 3)			
	ENST 487	Environmental Conflicts and Decision Making (F; 2)			

Concentration Depth (12 credits - Choose 4 courses, continued on back)

	ENST 456	Spatial Analysis and Ecological Sampling (F; 3) -**or**-			
	GEOG 272	Intro to Earth Observation Science (F, W, Sp, Su; 3) -**or**-			
	GEOG 373	Geographic Information Systems (F, W, Sp, Su; 3) -**or**-			
	INAG 237	Surveying and GPS Applications in Agriculture (F; 3)			

▲ Benchmark to be completed by 30 credits
▲ Benchmark to be completed by 60 credits
▲ Benchmark to be completed by 90 credits
◆ Requires prior approval

Students must maintain an overall GPA of 2.0 and a grade of C- or better for all ENST required classes.

Courses not selected here may count as technical electives on the back, but cannot be counted as both an elective and as a concentration CORE/ DEPTH course.

Any combination of electives can be taken. Courses appear in blocks of related topics to assist students in tailoring their program to particular interests with Natural Resources Management. Under some circumstances, other 300 or 400 level electives can be substituted with advisor's approval.

Concentration Depth (Cont.)

(12 credits - Choose 4 courses)

			Semester Projected	Semester Taken	Final Grade
☐	ENST 450	Wetland Ecology (F; 3) -**or**-			
	ENST 453	Watershed Science: Water Balance, Open Channel Flow, and Near Surface Hydrology (TBA; 3)			
☐	AREC 240	Introduction to Economics and Environment (TBA; 4) -**or**-			
	AREC 241	Environment, Economics, and Policy Studies (F; 3) -**or**-			
	ENST 410	Ecosystem Services: An Integrated Analysis (TBA; 3)			
☐	ENST 424	Field Study in Soil Morphology (TBA; 3) -**or**-			
	ENST 430	Wetland Soils (Sp; 3) -**or**-			
	ENST 441	Issues in Sustainable Agriculture (F; 3) -**or**-			
	ENST 462	Field Techniques in Wildlife Management (F; 3) -**or**-			
	GEOG 418	Field and Laboratory Techniques in Environmental Science (F; 3)			

Technical Electives (12 credits)

			Semester Projected	Semester Taken	Final Grade
Wildlife					
◆	ENST 460	Principles of Wildlife Management (F; 3)			
◆	ENST 461	Urban Wildlife Management (TBA; 3)			
◆	BSCI 334&335	Mammalogy (Sp; 4)			
◆	ENST 462	Field Techniques in Wildlife Management (Sp; 3)			
◆	ENSP 102	Introduction to Environmental Policy (Sp; 3)			
◆	PLSC 254	Woody Plants for Mid-Atlantic Landscape II (Sp; 4)			
◆	ENSP 330	Introduction to Environmental Law (F, Sp; 3) -**or**-			
	GVPT 273	Introduction to Environmental Politics (F, Sp; 3)			
Fisheries					
◆	ENST 314	Fisheries Sustainability and Management (TBA; 3)			
◆	COMM 250	Introduction to Communication Inquiry (F, Sp; 3)			
◆	COMM 382	Essential of Intercultural Communication (F, Sp; 3)			
◆	GEOG 331	Intro to Human Dimensions of Global Change (F, Sp; 3)			
◆	GEOG 416	Conceptualizing and Modeling Human-Environmental Interactions (F, Sp; 3)			
◆	ENSP 102	Introduction to Environmental Policy (Sp; 3)			
◆	ENSP 330	Introduction to Environmental Law (F, Sp; 3)			
◆	GVPT 273	Introduction to Environmental Politics (F, Sp; 3)			
Wetlands					
◆	ENST 430	Wetland Soils (Sp; 3)			
◆	ENST 450	Wetland Ecology (F; 3)			
◆	ENST 452	Wetland Creation and Restoration (Sp; 3)			
◆	GEOL 452	Watershed and Wetland Hydrology (F; 3)			
◆	PLSC 4890	Plant Taxonomy (Sp; 3) -**or**-			
	PLSC 254	Woody Plants for Mid-Atlantic Landscape II (Sp; 4)			
Forestry					
☐	PLSC 253	Woody Plants for Mid-Atlantic Landscapes I (F; 3)			
☐	PLSC 254	Woody Plants for Mid-Atlantic Landscapes II (Sp; 3)			
☐	PLSC 400	Plant Physiology (Sp; 4)			
☐	PLSC 471	Forest Ecology (Sp; 3)			

◆ Required for Professional Certification as an Associate Wildlife Biologist by The Wildlife Society.

◆ Required for Professional Certification as an Associate Fisheries Professional by American Fisheries Society.

◆ Required for Professional Certification as an Wetland Professional in Training (WPIT) by The Society of Wetland Scientists Professional Certification Program (SWSPCP).