THE UNIVERSITY OF MICHIGAN
SCHOOL OF NATURAL RESOURCES & ENVIRONMENT

REQUIREMENTS FOR THE
BACHELOR OF SCIENCE IN NATURAL RESOURCES & ENVIRONMENT

ENVIRONMENT MAJOR

Attention: This is an advisory tool. Requirements are subject to change.

This sheet represents requirements for students entering SNRE in Fall 2001 or later.
Students who entered SNRE prior to Fall 2001 should check pre-Fall 2001 concentration worksheets for requirements they must satisfy.

Humanities and Social Science (20-24 credits)

*English Composition (4) _____
(English 124 or 125 OR Classic Civ 121; Great Books 191; History 195; Institute for the Humanities 104; Linguistics 104; Lloyd Scholars 125; RC Core 100; Slavic Survey 151; Univ. Course 153)

*Foreign Language (2nd term proficiency)
Course_____ (3-4) _____
Course_____ (3-4) _____

*Two Introductory Social Science/Humanities Courses
(Any course categorized as SS or HU by LSA)
Course_____ (3-4) _____
Course_____ (3-4) _____

Microeconomics (Econ 101) (4) _____

Race & Ethnicity Requirement
(SNRE or LSA approved)
Course_____

Upper-Level Writing Requirement
(SNRE or SWC approved)
Course_____

Analytical & Biophysical Sciences (22-23 credits)

*Calculus (Math 115) (4) _____

*Chemistry 130 [depending on placement] (3) _____

Chemistry 210 & 211 **OR** Geology 117
OR Physics 125 & 127 (5) _____

*Biology 162 (5) _____

General Ecology
(Bio 281 & 282 or Bio 381 or NRE 330) (5-6) _____

*Courses recommended during the first year
These courses can also be used to satisfy other requirements.
+ Bio 282 can be used as a lab course but not a field course.

NRE Core Courses (30-32 credits)

*Intro to Natural Resource Problems (NRE 100)(3) _____
(not required for transfer students)

*Interdisciplinary Course
(NRE 110, 111, 256, 270, 308; ES 240) (3-4) _____

Intro to Environmental Policy (NRE 210) (3) _____

*Intro to Environmental Analysis (NRE 239) (4) _____

Society and Environment (3-4) _____
(NRE 305, 336, 360, 361, 449, 481)

Applied Ecology Course
(NRE 311, 314, 317, 337, or advanced applied ecology course) (3-4) _____

Natural Resource Economics (NRE 375) (3) _____

Natural Resource Statistics (NRE 438) (4) _____

Land Use, Design and Planning (3) _____
(NRE 370, 403, 579, 589)

Upper-Division Lab & Field Requirement
(See OAP staff for approved courses)
+ NRE Lab_____
Field Course_____

Electives (41-48credits in SNRE or other units)

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

120 Credits required for a BS (NRE) _____

60 Credits must be at 300 level or above _____

NOTE: Minimum "C-" grade is mandatory for all requirements.

Natural Resources & Environment Elective Courses

Terms subject to change. Check time schedule

The following NRE courses will satisfy elective and required courses for students in the Environment Major. Any University of Michigan course, including courses taught at the UM Biological Station and Camp Davis, can be used as elective credit.

BIOLOGY & ECOLOGY

NRE 310 Toxicology: The Study of Environmental Chemicals and Disease (3) F
NRE 317 Conservation of Biological Diversity (3) W
NRE 330 Habitats and Organisms: Science of Interactions (5) Su
NRE 337 Woody Plants: Biology and Identification (4) F
NRE 409 Ecology of Fishes (3-4) W
NRE 415 Wildlife Behavior and Ecology (4) F
NRE 416 Field Skills in Wildlife Behavior (2) F
NRE 418 Biology and Management of Insects (3-4) W
NRE 422 Biology of Fishes (3) F
NRE 423 Biology of Fishes Laboratory (1) F
NRE 433 Ornithology (4) F
NRE 451 Biology of Mammals (4) F (B)
NRE 455 Laboratory in Field Ecology (5) F
NRE 505 Human Resource Ecology (2 or 4) F #
NRE 516 Aquatic Entomology (3) W (B) #
NRE 521 Insect Ecology (3) W #

ECOSYSTEMS

NRE 311 Introduction to Aquatic Ecosystems (4) W
NRE 330 Habitats and Organisms: Science of Interactions (5) Su
NRE 402 Spring Ecosystems and Plants (4) Sp
NRE 408 Wetland Ecology (3) W
NRE 411 Fluvial Ecosystems (4) F (B)
NRE 430 Soil Properties and Processes (3) F
NRE 432 Forest Hydrology and Watershed Management (2-3)
NRE 435 Forest/Terrestrial Ecology (4) F @
NRE 476 Ecosystem Ecology (4) W
NRE 528 Advanced Forest Ecology (3) W (B) #
NRE 589 Ecological Restoration (3) W #

MANAGEMENT

NRE 418 Biology and Management of Insects (3-4) W
NRE 419 Agricultural/Forest Pest Management (1-4) W (B)
NRE 425 Applied Population Ecology (4) W
NRE 427 Aquaculture (3-4) F
NRE 453 Tropical Conservation and Resource Management (3) F
NRE 460 Fishery Science (4) F
NRE 553 Agroforestry (3) W (B) #

ENVIRONMENTAL ANALYSIS

NRE 420 Principles of GIS (4) W
NRE 441 Remote Sensing of the Environment (4) W
NRE 446 Quantitative Analysis of Ecological Issues (4) W
NRE 538 Natural Resource Data Analysis (4) W #
NRE 543 Imaging Radar as a Remote Sensor (3) W #

POLICY & ECONOMICS

NRE 310 Toxicology: The Study of Environmental Chemicals and Disease (3) F
NRE 312 Environmental Politics & Policy (3) F
NRE 335 Introduction to Environmental Policies: Race, Class and Gender (4) F
NRE 356 Environmental History of the Tropical World (3)
NRE 365 International Environmental Policy (3) W
NRE 465 Environmental Decision Making in Business (3) W
NRE 471 Analytical Tools for Environmental Policy (3) F
NRE 475 Environmental Law (3) F
NRE 558 Water Resource Policy (3) F #
NRE 562 Resource Policy and Administration (3) F #
NRE 557 Industrial Ecology (3-4) W #
NRE 570 Microeconomics with Natural Resource Applications (3) F #
NRE 583 Intermediate Natural Resource Economics (3) #

BEHAVIOR, EDUCATION, & ENVIRONMENTAL JUSTICE

NRE 305 Society and Environment (3) F
NRE 335 Introduction to Environmental Policies: Race, Class and Gender (4) F
NRE 336 Environment and Inequality (4) F
NRE 360 Behavior and Environment (3) F
NRE 361 The Psychology of Environmental Stewardship (3) F
NRE 396 History of Environmental Thought and Activism (3) F
NRE 449 Organizational Theory and Change (3) W
NRE 477 Women/Gender and Environment (3) W
NRE 481 Foundations of Environmental Education (4) F
NRE 482 Environmental Justice: Theoretical Approaches (3) F
NRE 492 Environmental Justice: Domestic & International (3) F
NRE 495 Small Group Organization and Advocacy Planning (3) F
NRE 581 Advanced Environmental Education (3) #
NRE 597 Environmental Education Field Placement (2) F #

LAND USE, DESIGN, & PLANNING

NRE 370 Introduction to Urban Planning (3) F, W
NRE 403 History of Human Interaction with the Land (3) W
NRE 563 Forest and Land Policy (3) W #
NRE 573 Urban and Regional Theory #
NRE 579 Land Use Planning and Design (3) F #

OTHER

NRE 306 Undergraduate Experimental Course (topic and credit hours vary by section—check schedule)
NRE 398 Natural Resource Internship Program (1-3) F, W, Sp, Su
NRE 399 Junior Honors Seminar (3) W @
NRE 499 Senior Honors Seminar (1-6) F, W #

Number in ( ) indicates credit hours
Semester offered = W (Winter), F (Fall), Sp (Spring), Su (Summer)
(B) = indicates course is offered biennially. Check schedule for availability
Seniors only or Permission of Instructor
@ Permission of Instructor