THE UNIVERSITY OF MICHIGAN
SCHOOL OF NATURAL RESOURCES
& ENVIRONMENT

REQUIREMENTS FOR THE
BACHELOR OF SCIENCE IN NATURAL RESOURCES & ENVIRONMENT

Resource Ecology and Management Concentration

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

This sheet represents requirements for students entering SNRE in Fall 98 to Summer 01.

Students who entered SNRE prior to Fall 98 should check pre-Fall 1998 concentration worksheets for requirements they must satisfy.

GENERAL

Humanities and Social Sciences (11-12 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)

* One Introductory Social Science Course
(NRE 111, 256, 270; Cult. Anthropology, Psychology, Political Science, Sociology)
Course _____ (3-4) _____

Microeconomics (Econ 101) (4) _____

Upper-Level Writing Course (SWC approved: refer to the LSA Course Guide and OAP staff)
Course _____

Analytical Sciences (12 credits)

* Calculus (Math 115 **and** 116) (8) _____

NRE 438 (4) _____

Biophysical Sciences (20-31 credits)

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

Chemistry 210 & 211 (5) _____

Chemistry 215 & 216 **OR**
Phys 125 & [Phys 126, Geol 117 or Geol 116] (5-12) _____

* Bio 162 **OR** (5) _____
Bio 152 & 154 or equivalent **OR**
Bio 152 & approved course (see OAP staff)

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

Electives (approximately 20 credits in SNRE or other units)

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

Audit Date:_____

By: _____

NATURAL RESOURCES and ENVIRONMENT

NRE Core Courses (27-31 credits)

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

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

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

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

Applied Social & Behavioral Science (3) _____
(NRE 305, 336, 360, 361, 449, and 481)

Natural Resource Economics (NRE 375) (3) _____

Applied Ecology (2 courses from approved courses, See OAP staff)
Course _____ (3-4) _____
Course _____ (3-4) _____

Resource Management
(See OAP staff for approved courses)
Course _____ (3-4) _____

Lab Requirement (Effective Fall 98)
All SNRE students are required to take **one** upper-division NRE laboratory course and **one** field course.
(See OAP staff for approved courses)
NRE Lab: _____
Field Course: _____

NRE Concentration Courses (minimum of 15 credits)

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

Recommended Capstone Course
(NRE 398, 499; International Study)

For students admitted to SNRE Fall '95 or later:
Minimum **50 NRE credits** required for a BS(NRE) _____

120 total credits required for a BS (NRE) _____

* Courses recommended during the first year

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

RESOURCE ECOLOGY AND MANAGEMENT CONCENTRATION COURSES

Terms are subject to change. Check time schedule.

The following Natural Resources and Environment courses will satisfy concentration requirements for students in the Resource Ecology and Management (REM) Concentration. Any University of Michigan Biological Station course can be used in the REM concentration. Students may elect up to 6 credits outside of the School of Natural Resources and Environment with permission from their academic advisor.

NRE 306	Undergraduate Experimental Course (Section credits vary. Section content changes each term. ONLY sections with Resource Ecology and Management emphasis count.)
NRE 310	Toxicology: The Study of Environmental Chemicals and Disease (3) F
NRE 311	Introduction to Aquatic Ecosystems (4) W
NRE 314	Terrestrial Vertebrate Natural History (3-4)
NRE 317	Conservation of Biological Diversity (3) W
NRE 330 (UMBS)	Habitats and Organisms: Science of Interactions (5) Su
NRE 337	Woody Plants: Biology and Identification /Bio 355 (4) F
NRE 398	Natural Resource Internship Program (1-3) F, W, Sp, SS, Su (must be petitioned)
NRE 402	Spring Ecosystems and Plants (4) Sp
NRE 408	Wetland Ecology (3) W
NRE 409	Ecology of Fishes /Bio 487 (3-4) W
NRE 411	Fluvial Ecosystems (4) F (B)
NRE 415	Wildlife Behavior and Ecology (4) F
NRE 416	Field Skills in Wildlife Behavior (2) F
NRE 418	Biology and Management of Insects (must be elected for 3-4) W
NRE 419	Agricultural/Forest Pest Management (1-4) W (B)
NRE 420	Principles of GIS (4) W
NRE 422	Biology of Fishes /Bio 440 (3) F
NRE 423	Biology of Fishes Laboratory /Bio 441 (1) F
NRE 425	Applied Population Ecology /Bio 496 (4) W
NRE 427	Aquaculture (3-4) F
NRE 430	Soil Properties and Processes /Bio 489 (3) F
NRE 432	Forest Hydrology and Watershed Management (2-3) W
NRE 433	Ornithology /Bio 433 (4) F
NRE 435	Forest/Terrestrial Ecology (4) F
NRE 441	Remote Sensing of Environment (4) W
NRE 446	Quantitative Analysis of Ecological Issues (4) W
NRE 450	Aquatic Science Field Studies (6) Sp
NRE 451	Biology of Mammals /Bio 451 (4) F (B)
NRE 453	Tropical Conservation and Resource Management (3) F
NRE 455	Laboratory in Field Ecology (5) F
NRE 460	Fishery Science (4) F (B)
NRE 476	Ecosystem Ecology (3) W (B)
Seniors Only	
NRE 499	Senior Honors Seminar (1-6) F, W
NRE 505	Human Resource Ecology (2 or 4) F
NRE 516	Aquatic Entomology (3) W (B)
NRE 521	Insect Ecology (3) W (B)
NRE 528	Advanced Forest Ecology (3) W (B)
NRE 538	Natural Resource Data Analysis (4) W
NRE 543	Imaging Radar as a Remote Sensor /EECS 450 /AOSS 459 (3) W
NRE 553	Agroforestry (3) W (B)
NRE 589	Ecological Restoration (3) W

Number in ( ) indicates credit hours.
Semester offered = W (Winter), F (Fall), Sp (Spring), SS (Spring /Summer), Su (Summer)
(B) = indicates course is offered biennially. Check schedule for availability.
(UMBS) = taught at University of Michigan Biological Station.