Bachelor of Science in Environmental Sciences

Name: ____________________ Campus Phone: ____________________

Option: ____________________

Faculty Advisor: ________________ Semester and Year Entered: ________________

REQUIREMENTS

Introductory Environmental Sciences (3 courses)
1a. NR 400 Professional Perspectives in Natural Resources (Env. Sci. Section)
1b. NR 403 Introduction to Environmental Science
2. ONE of the following:
   - NR 502 Forest Ecosystems and Environmental Change (fall)
   - NR 504 Freshwater Resources (spring)
   - ENE 645 Fundamental Aspects of Environmental Engineering (spring, WI)
   - NR 415 Global Biological Change (spring)
   - ESCI 504 Intro. Climate
   - ESCI 501Intro. Oceanography (fall and spring)
   - ESCI 405 Global Environmental Change (fall)
   - GEOG 473 Elements of Weather (fall and spring)

Foundation Courses (8 courses)
3. CHEM 403 General Chemistry I (fall)
4. CHEM 404 General Chemistry II (spring)
5. MATH 425 Calculus I (fall and spring)
6. MATH 426 Calculus II (fall and spring)
7. Geology course (ESCI 401, 402 or 409)
8. Statistics course (MATH 644 or BIOL 528)
9. PHYS 407 General Physics I (fall and spring)
10. Approved biology course
    - BIOL 411 Principles of Biology I
    - BIOL 412 Principles of Biology II
    - PBIO 412 Introductory Botany
    - ZOOL 412 Biology of Animals

Core Courses (5 courses)
11. ESCI 534 Techniques in Environmental Sciences (fall)
12. NR 658 Introduction to GIS (spring)
13. ESCI 654 Fate and Transport in the Environment (spring)
14. NR 602 Natural Resource and Environmental Policy (spring, WI) OR
    - NR 662 Environmental Policy, Planning and Sustainability in New Zealand
15. Capstone courses: EITHER EcoQuest and NR 663 OR
    - NR791 AND Capstone experience: EITHER EcoQuest or thesis, honors thesis, internship, INCO 790
    - or ESCI/NR 795 with completed capstone documentation
      NOTE: NR791 MUST BE TAKEN SPRING OF JUNIOR YEAR

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COMPLETE ONE OF THE FOLLOWING OPTIONS

NOTE: See lists of approved electives on page 3

Ecosystems (8 courses) -
16. NR 527 Forest Ecology (fall) OR BIOL 541 General Ecology (fall/spring, WI)
17. NR 751 Aquatic Ecosystems
18. NR 730 Terrestrial Ecosystems (spring)
19. NR 765 Community Ecology (spring)
20. FOUR approved electives

Hydrology (8 courses) -
16. PHYS 408 General Physics II (fall and spring)
17. ESCI 561 Landscape Evolution (fall)
18. NR 501 Studio Soils (fall) OR ESCI 512 Mineralogy (fall)
19. Quantitative Analysis Course – Approved by advisor
20. ESCI 705 Principles of Hydrology
21. ESCI 710 Groundwater Hydrology (spring)
22. TWO approved electives

Soil & Watershed Management (8 courses) -
16. PHYS 408 General Physics II (fall and spring)
   OR
   NR 527 Forest Ecology (fall) OR BIOL 541 General Ecology (fall/spring, WI)
17. NR 501 Studio Soils (fall)
18. NR 703 Watershed Water Quality Management (fall, WI)
19. NR 706 Soil Ecology or NR 744 Biogeochemistry
20. FOUR approved electives

UNIVERSITY REQUIREMENTS

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Courses listed below are approved electives in all three options. Other courses may be proposed by students, and must be approved by the advisor. Courses taken as part of the requirement for an options (see page 2) may NOT be used to fill elective requirement as well.

CIE 745 Engineering Hydrology

ENE 643 Environmental Sampling and Analysis
ENE 749 Water Chemistry

ESCI 512 Mineralogy (fall)
ESCI 561 Landscape Evolution (fall)
ESCI 703 Fluvial Hydrology
ESCI 717 Macroscale Hydrology (fall)
ESCI 734 Applied Geophysics (fall)
ESCI 747 Aqueous Geochemistry (spring)
ESCI 762 Glacial Geology (WI)

MATH 527 Differential Equations

MICR 714 Public Health and Waterborne Disease (spring)

NR 621 Field Description of Soils (fall and spring)
NR 660 Ecology and Biogeography of New Zealand (fall and spring)
NR 661 Restoration Ecology and Ecosystem Mgmt. New Zealand (fall and spring)
NR 703 Watershed Water Quality Management (fall, WI)
NR 706 Soil Ecology (fall, WI)
NR 711 Wetland Ecology and Management (fall, WI)
NR 713 Quantitative Ecology (fall alternating even year, WI)
NR 716 Wetland Delineation (summer only)
NR 719 Wetlands Restoration and Mitigation (fall alternating even year)
NR 732 Chemistry of Soils (not offered every year)
NR 744 Biogeochemistry (spring alternating even year)
NR 757 Remote Sensing of the Environment
NR 759 Digital Image Processing for Natural Resources
NR 760 Geographic Information Systems in Natural Resources
NR 767 Earth System Science
NR 751 Aquatic Ecosystems

PBIO 717 Biology of Lakes (fall)
PBIO 719 Field Studies in Lake Biology (fall, WI)

ZOOL 708 Stream Ecology

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