

Appendix F Curriculum Concentrations

Each concentration contains required and elective courses.
The concentration will not appear on the student's transcript.

Environmental Policy and Planning

August, 2008

Core Requirements

ES 659 Environmental Studies Seminar (3)

Ecology requirement (select one):

GEOG 517 Landscape Ecology (5)
PBIO 536 Plant Community Ecology (5)
PBIO 537 Ecosystem Ecology (4)

All three of these courses:

GEOG 557 Environmental Law (5)
GEOG 547 Natural Resource Conservation (5)
POLS 525 Environmental and Natural Resource Policy (5)

Curriculum Concentration Electives (20 hours minimum)

BIOS 575 Sociobiology (3)

CHEM 585 Introduction to Toxicology (5)

CE 566 Transportation Systems Analysis (3)

ECON 513 Economics of the Environment (5)
ECON 514 Natural Resource Economics (5)
ECON 535 Economics of Energy (5)
ECON 550 Economic Development (5)

EH 525 Environmental Health and Safety Risk Communication (4)

GEOG 521 Population Geography (5)
GEOG 529 World Economic Geography (5)
GEOG 533 Appalachia: Land and People (5)
GEOG 540 Environmental Impact Analysis (5)
GEOG 550 Land Use Planning (5)
GEOG 553 Environmental Planning (5)
GEOG 556 City and the Environment (5)
GEOG 558 Environmental Hazards (5)
GEOG 570 Geographic Information Systems (GIS) Applications (5)
GEOG 578 Principles of GIS (5)

HIST 506 American Environmental History (5)
HIST 533 Oil and World Power (5)

MGT 530 Management Systems: Decision Making (4)

PHIL 592 Applied Ethics (5)

POLS 526 Politics of Contemporary Environmental Movement (5)
POLS 588 Public Dispute Resolution (5)
POLS 595 Public Affairs Internship (1-15)

SOC 581 Environmental Sociology (5)

Environmental Archaeology

(50 hours minimum)

August 2008

Core Requirements

ES 659 Environmental Studies Seminar (3)

Ecology requirement:

ANTH 578 Human Ecology (5)

Select two of these courses:

GEOG 557 Environmental Law (5)

GEOG 547 Natural Resource Conservation (5)

POLS 525 Environmental and Natural Resource Policy (5)

Curriculum Concentration Electives (30 hours minimum)

Select minimum of **15 hours** from these courses:

ANTH 552 Archaeological Anthropology (5)

ANTH 556 Methodology and Field Research (5)

ANTH 561 North American Prehistory (5)

ANTH 563 Gender in Prehistory (5)

ANTH 564 Near East Prehistory (5)

ANTH 565 Field School in Ohio Archaeology (5-10)

ANTH 567 South American Prehistory (5)

ANTH 570 Mexican/Central American Prehistory (5)

ANTH 594C Seminar in Archaeology (4-6)

Select minimum of **15 hours** from these courses:

BIOS 503 Comparative Vertebrate Anatomy (6)

GEOG 517 Landscape Ecology (5)

GEOG 521 Population Geography (5)

GEOG 540 Environmental Impact Analysis (5)

GEOG 544 Agricultural Ecosystems (5)

GEOG 565 Air Photo Interpretation (5)

GEOG 566 Remote Sensing (5)

GEOG 570 Geographic Information Systems (GIS) Applications (5)

GEOG 578 Principles of GIS (5)

GEOG 579 GIS Analysis (5)

GEOL 532 Origin and Classification of Soils (5)

GEOL 535 Quaternary Geology (5)

HIST 502 History of American Indians (5)

PBIO 522 Tropical Plant Ecology (4)

PBIO 693 Topics in Botany (2-6)

SOC 581 Environmental Sociology (5)

Environmental Life Sciences

August 2008

Core Requirements

ES 659 Environmental Studies Seminar (3)

Ecology requirement (select one):

BIOS 577	Population Ecology (4)
BIOS 578	Community Ecology (4)
PBIO 536	Plant Community Ecology (5)
PBIO 537	Ecosystem Ecology (4)
PBIO 522	Tropical Plant Ecology (4)

Select two of these courses:

GEOG 557	Environmental Law (5)
GEOG 547	Natural Resource Conservation (5)
POLS 525	Environmental and Natural Resource Policy (5)

Curriculum Concentration Electives (20 hours minimum)

Statistics requirement (select one):

BIOS 670	Biostatistics (5)
PBIO 515	Quantitative Methods in Plant Biology (4)

Taxon-based requirement (select one):

PBIO 520	Phycology (5)
BIOS 530	Invertebrate Zoology (6)
BIOS 535	Entomology (6)
BIOS 558	Biology of Amphibians (3)
BIOS 559	Biology of Reptiles (3)
BIOS 565	Ichthyology (6)
BIOS 571	Ornithology (6)
BIOS 574	Mammalogy (6)
PBIO 509	Plant Systematics (6)
PBIO 510	Biology of Fungi (5)
PBIO 560	Paleobotany (6)

Select additional **10 hours** from the following courses:

BIOS 516	Biogeography (4)
BIOS 529	Marine Biology (5)
BIOS 531	Limnology (5)
BIOS 581	Animal Conservation Biology (4)
GEOG 539	Fluvial Geomorphology (4)
PBIO 535	Plant Population Biology (5)
PBIO 693	Topics in Botany (2-6)

Environmental Physical and Earth Sciences

August, 2008

Core Requirements

ES 659 Environmental Studies Seminar (3)

Ecology requirement (select one):

GEOG 517 Landscape Ecology (5)

PBIO 537 Ecosystem Ecology (4)

Required course:

GEOG 557 Environmental Law (5)

Select one of these two courses:

GEOG 547 Natural Resource Conservation (5)

POLS 525 Environmental and Natural Resource Policy (5)

Curriculum Concentration Electives (20 hours minimum)

CHEM 501	Organic Chemistry Survey (5)	GEOG 578	Principles of GIS (5)
CHEM 531	Chemical Separation Methods (3) (CHEM 534 lab (1))	GEOL 512	Earth Materials & Resources (5)
CHEM 532	Chemical Instrumentation and Electrochemistry (3) (CHEM 535 lab (1))	GEOL 527	Water Geochemistry (5)
CHEM 533	Spectrochemical Analysis (3) (CHEM 536 lab (1))	GEOL 529	Contaminant Geochemistry (5)
CHEM 551	Physical Chemistry (5)	GEOL 530	Principles of Geomorphology (6)
CHEM 579	Radiochemistry (5)	GEOL 532	Origin & Classification Soils (5)
CHEM 585	Introduction to Toxicology (5)	GEOL 539	Fluvial Geomorphology (5)
CHEM 589	Basic Biochemistry (5)	GEOL 553	Physical Limnology (5)
		GEOL 580	Principles of Hydrogeology (5)
GEOG 502	Meteorology (5)	CH E 520	Coal Conversion Technology (3)
GEOG 515	Landforms & Landscapes (5)	CH E 560	Atmosph. Pollution Control (4)
GEOG 516	Biogeography(5)	CH E 563	Atmospheric Chemistry (3)
GEOG 540	Environmental Impact Analysis (5)	CH E 581	Biochemical Engineering (3)
GEOG 544	Agricultural Ecosystems (5)	E H 510	Water Supply & Wastewater (3)
GEOG 550	Land Use Planning (5)	E H 540	Air Qual. & Pollution Control (3)
GEOG 553	Environmental Planning (5)	I H 501	Hazardous Materials in Workplace (Toxicology) (4)
GEOG 576	Field Methods (5)		

Environmental Monitoring

August, 2008

Core Requirements

ES 659 Environmental Studies Seminar (3)

Ecology Requirement: (select one)

BIOS 578 Community Ecology (4)

PBIO 536 Plant Community Ecology (5)

The following two courses:

GEOG 557 Environmental Law (5)

GEOG 547 Natural Resource Conservation (5)

Curriculum Concentration Electives (20 hours minimum)

CHEM 501 Organic Chemistry Survey (4)

CHEM 531 Chemical Separation Methods (take CHEM 534 lab) (3) (1)

CHEM 532 Chemical Instrumentation and Electrochemistry (take CHEM 535 lab) (3) (1)

CHEM 533 Spectrochemical Analysis (take CHEM 536 lab) (3) (1)

CHEM 579 Radiochemistry (5)

CHEM 585 Introduction to Toxicology (5)

CHEM 589 Basic Biochemistry (5)

CH E 562 Air Pollution Modeling (3)

EH 510 Water Supply and Wastewater (3)

EH 525 Environmental Health and Safety Risk Communication (4)

EH 540 Air Quality and Pollution Control (3)

GEOG 558 Environmental Hazards (5)

GEOG 560 Cartography I (5)

GEOG 566 Principals of Remote Sensing (5)

GEOG 570 GIS Applications (5)

GEOG 578 Principles of Geographic Information Systems (5)

GEOG 579 GIS Analysis (5)

GEOL 539 Fluvial Geomorphology (4)

GEOL 580 Principles of Hydrogeology (5)

GEOL 581 Ground Water Flow Modeling (5)

GEOL 582 Transport Processes in Groundwater (5)

IH 500 IH Sampling and Analysis (5)

IH 501 Hazardous Material in the Workplace (Toxicology) (4)

IH 505 Ventilation for Contamination Control (4)

IH 510 Physical Hazards (4)

IH 515 Radiological Health (4)

IH 520 Hazardous Materials Management and Control (4)

MATH 550 A-C Theory of Statistics (4)

MATH 560 A-C Advanced Calculus (4)

PHYS 511 Thermodynamics (4)

Environmental Education and Communications

August 2008

(Minimum 50 Credit Hours)

Core Requirements (16-18 Credits)

ES 659 Environmental Studies Seminar (3)

Environmental Core (Select one):

GEOG 547 Resource Management (5)

POLS 525 Environmental and Natural Resource Policy (5)

Environmental Communication (Select one)

POLS 588 Public Dispute Resolution (5)

EH 525 Environmental Health and Safety Risk Communication (4)

Ecology Requirement (Select one):

GEOG 517 Landscape Ecology (5)

PBIO 536 Plant Community Ecology (5)

PBIO 537 Ecosystem Ecology (4)

Skills Courses¹

To develop communications skills and techniques

- Select at least one course in Journalism, Visual Communications, Marketing, Education, Sociology, or Communication

Concepts Courses

To develop an understanding of communication and education theory

- Select at least one course in Journalism, Communication, Business, or Education

Environmental Content Courses (Select at least one)

GEOG 516 Biogeography (5)

GEOG 521 Population Geography (5)

GEOG 522 Settlement Geography (5)

GEOG 525 Political Geography (5)

GEOG 529 World Economic Geography (5)

GEOG 558 Environmental Hazards (5)

GEOL 546 Earth Systems Evolution (5)

HIST 506 American Environmental History (5)

POLS 526 Politics of the Contemporary Environmental Movement (5)

SOC 581 Environmental Sociology (5)

¹ A list of possible course selections for the Skills and Concepts requirements is available from the Environmental Studies office.

