

ENVIRONMENT AND RESOURCES PROGRAM COURSE LIST

Listed are courses which may be appropriate for meeting the requirements of the Environment and Resources Program. This list is not meant to be all-inclusive. Many departments offer special topics courses which may be of interest to Environment and Resources students; most of these are not included because the course content changes frequently and these special topics are not taught on a regular basis.

A student should not assume that all courses listed under a specific heading will be universally accepted. Each program should be individually tailored to achieve student and program objectives. Courses should be selected in consultation with each student's faculty committee. Final approval of the plan of study is obtained at the time of certification and is subject to approval by both the faculty committee and the chair of the Environment and Resources Program.

Because course scheduling often varies from year to year, we recommend checking with the appropriate department to verify when a course is to be offered. For a more complete description of the courses listed below, see the Graduate School Bulletin or check with the specific departments. Not all cross-listed courses may appear in every department shown below.

CATEGORY REQUIREMENTS

- Category 1: A minimum of 6 credits for the M.S. or 9 credits for the Ph.D. are required in the physical, biological, and/or other natural sciences.
- Category 2: A minimum of 6 credits for the M.S. or 9 credits for the Ph.D. are required in the social science and/or the humanities
- Category 3: A minimum of 6 credits for the M.S. or 9 credits for the Ph.D. are required in the area of measurement and analysis.
- Category 4: A minimum of 12 credits for the M.S. or 15 credits for the Ph.D. plus two research seminars and a variable number of research credits are required as an individual program focus. Since the courses used in this category are completely dependent upon the focus of the individual program, specific suggestions are not included in the list, other than ENVIR ST 992 and ENVIR ST 993.

Semester Code

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| 1 – Fall Semester | Alt Yrs – Alternative years |
| 2 – Spring Semester | Odd Yrs – 2001, 2003, 2005, etc. |
| SS – Summer Semester | Even Yrs – 2002, 2004, 2006, etc. |
| Irr – Irregular or historical (offered in the past) occurrence | |

Department Abbreviations Used:

A A E	Agricultural and Applied Economics
AGRONOMY	Agronomy
ANTHRO	Anthropology
ATM OCN	Atmospheric & Oceanic Sciences
BACT	Bacteriology
BOTANY	Botany
CIV ENGR	Civil & Environmental Engineering
C A V E	Continuing and Vocational Education
ECON	Economics
ED POL	Educational Policy Studies
ENTOM	Entomology
ENVIR ST	Environmental Studies
FAM COM	Family and Consumer Communications
FOREST	Forest Ecology & Management
GEOG	Geography
GEOLOGY	Geology
G L E	Geological Engineering
HISTORY	History
HIST SCI	History of Science
HORT	Horticulture
IND ENGR	Industrial Engineering
IND REL	Industrial Relations
JOURN	Journalism & Mass Communication
LAND ARC	Landscape Architecture
LAW	Law
L SC COM	Life Sciences Communication
M E	Mechanical Engineering
MED HIST	Medical History and Bioethics
M&ENVTOX	Molecular & Environmental Toxicology
PHILOS	Philosophy
PL PATH	Plant Pathology
POLI SCI	Political Science
POP HLTH	Population Health Sciences
PSYCH	Psychology
PUB AFFR	LaFollette School of Public Affairs
RUR SOC	Rural Sociology
SOC WORK	Social Work
SOC	Sociology
SOIL SCI	Soil Science
STAT	Statistics
TRAN P U	Transportation & Public Utilities
URB R PL	Urban & Regional Planning
WL ECOL	Wildlife Ecology
ZOOLOGY	Zoology

CATEGORY 1: Physical, Biological, and/or Natural Science

Department	# Title	Credits	Semester
AGRONOMY	300 Cropping Systems	3	2
AGRONOMY	302 Forage Management and Utilization	3	1
AGRONOMY	377 Cropping Systems of the Tropics	3	2
ATM OCN	330 Physics of the Atmosphere and Ocean I	3	1
ATM OCN/ENVIR ST	520 Bioclimatology	3	Irr
ATM OCN/ENVIR ST/GEOG	528 Past Climates and Climatic Change	2	2 or SS
ATM OCN/ENVIR ST	535 Atmospheric Dispersion and Air Pollution	3	2 or SS
ATM OCN/ENVIR ST	910 Seminar: Climatology	1-2	Irr
ATM OCN/FOREST/ENVIR ST BOTANY/GEOG/GEOLOGY/ZOOLOGY	980 Earth System Science Seminar	1	1
BOTANY	400 Plant Systematics	4	1
BOTANY	401 Vascular Flora of Wisconsin	4	2 or SS
BOTANY/FOREST	402 Dendrology	2	1 or SS
BOTANY	422 Plant Geography	3	2
BOTANY/FOREST	455 The Vegetation of Wisconsin	4	1
BOTANY/FOREST/ZOOLOGY	460 General Ecology	4	1 or SS
BOTANY/LAND ARC	670 Adaptive Restoration Lab	2	1
BOTANY	761 Taxon&Evolution of Wild&Domestic Grasses	2	Alt 1
BOTANY	801 Advan.Plant Ecology: Community Ecology	4	Alt 2
BOTANY	802 Physiological Plant Ecology	3	Alt 2
BOTANY	825 Ecological Methods	3	Alt 1
BOTANY	828 Evolutionary Plant Ecology	3	Alt 2
CIV ENGR	310 Fluid Mechanics	3	1, SS
CIV ENGR	311 Hydrosience	3	1, SS
CIV ENGR	315 Hydrology	3	1
CIV ENGR	365 City Planning	3	All
CIV ENGR	411 Open Channel Hydraulics	3	Irr
CIV ENGR	414 Hydraulic Design	3	2
CIV ENGR	423 Air Pollution Effects, Measurement, Control	3	Irr
CIV ENGR	500 Water Chemistry	3	1
CIV ENGR	514 Coastal Engineering	2-3	2
ENTOM/ZOOLOGY	302 Intro to Entomology	4	1 or SS
ENTOM	331 Taxonomy of Mature Insects	4	Odd 1
ENTOM	342 Insect Ecology	3	Even 1
ENTOM	402 Toxicology of Insecticides	3	Alt 1
ENTOM/ZOOLOGY/BOTANY	473 Plant-Insect Interactions	3	Alt 2
ENTOM	570 Principles of Insect Pest Suppression	4	Even 1
ENVIR ST/BOTANY/FOREST	461 Environmental Systems Concepts	3	Odd 2
ENVIR ST/POP HLTH	502 Air Pollution and Human Health	3	1
ENVIR ST/SOIL SCI	575 Analysis of Environmental Impact	3	Even 2
ENVIR ST/BOTANY/WL ECOL/ZOOLOGY	651 Conservation Biology	3	2
ENVIR ST	710 Field Investigations in Wetland Ecology	3	1
ENVIR ST	976 The Practice of CBSD	1	2
FOREST	410 Principles of Silviculture	3-4	2
FOREST	415 Tree Physiology	3	1
FOREST	550 Forest Ecology	3-4	1
FOREST/ZOOLOGY/LAND ARC	565 Principles in Landscape Ecology	2	Odd 2
GEOG	321 Climatology	3	1
GEOG/ENVIR ST	325 Analysis of the Physical Environment	4	1 or 2 or SS
GEOG/GEOLOGY	326 Landforms: Fluvial Geomorphology	3	1 or 2 or SS
GEOG	329 Landforms & Landscapes of North America	3	2 or SS
GEOG/ATM OCN/ENVIR ST	331 Climatic Environments of the Past	2	2 or SS
GEOG	336 Our Hazardous Environment	3	1 or SS
GEOG	338 Vegetation: Stability and Change	3	2 or SS

CATEGORY 1: Physical, Biological, and/or Natural Science

Department	# Title	Credits	Semester
GEOG/ENVIR ST	339 Environmental Conservation	3-4	1, 2, SS
GEOG/GEOLOGY	524 Advanced Landform Geography	3	2 or SS
G L E/M S & E/GEOLOGY	475 Rock Mech. Applic. to Environ. Problems	3	2
GEOLOGY	303 Fluids and Sedimentary Processes	3	1
GEOLOGY	304 Geobiology	3	2
GEOLOGY/GEOG	320 Geomorphology	3	1
GEOLOGY	375 Introductory Geochemistry	3	Alt
GEOLOGY	376 Topics in Geology: Problems/Atmo. Science	1-3	1 or 2 or SS
GEOLOGY/ENVIR ST	410 Minerals as a Public Problem	3	1 or 2
GEOLOGY/ENVIR ST	411 Energy Resources	3	1
GEOLOGY/GEOG	420 Glacial and Pleistocene Geology	3	2
GEOLOGY	540 Invertebrate Paleontology	3	Alt 1
GEOLOGY	541 Paleobiology	3	Alt 1
GEOLOGY	544 Evolution of the Vertebrates	2	Irr
GEOLOGY/G L E	627 Hydrogeology	3-4	1
GEOLOGY	629 Contaminant Hydrogeology	3	2
GEOLOGY	727 Advanced Hydrogeology-Selected Topics	1-3	2
GEOLOGY	875 Advanced Topics in Geology	1-3	All
IND ENGR/PSYCH	652 Sociotechnical Systems	3	1
LAND ARC	666 Restoration Ecology	3	1
LAND ARC	866 Seminar: Natural Plant Comm Restor. & Mgt	1	Alt 2
M&ENVTOX/ENVIR ST/SOIL SCI	631 Toxicants in the Environment	3	2
PL PATH	602 Ecol, Epidem, and Control/Plant Diseases	3	Alt 1
PL PATH/BACT	622 Plant-Bacterial Interactions	2-3	Even 1
POP HLTH/ENVIR ST	471 Introduction to Environmental Health	3	2
SOIL SCI	301 General Soil Science	4	1, SS
SOIL SCI	315 Soils and Land Use Planning	3	2
SOIL SCI	322 Physical Principles of Soil and Water Mgt	3	2
SOIL SCI/ENVIR ST	324 Soils and Environmental Pollution	3	1
SOIL SCI	325 Pedology	3	1
SOIL SCI/AGRONOMY/HORT	326 Plant Nutrition Management	3	2
SOIL SCI/BACT	523 Soil Microbial Biochemistry	3	2
SOIL SCI	601 Special Topics in Soil Science	1-3	1, 2, SS
SOIL SCI	621 Soil Chemistry	3	2
SOIL SCI	622 Soil Physics	3	Odd 1
WL ECOL	318 Principles of Wildlife Ecology	2	1
WL ECOL	379 Principles of Wildlife Management	3	2
WL ECOL	401 Physiological Animal Ecology	3	1
WL ECOL	527 Ecosystem Management	2	1
ZOOLOGY/ENVIR ST	315 Limnology-Conservation/Aquatic Resources	2	1, 2
ZOOLOGY	316 Lab/Limnology-Conserv/Aquatic Resources	2	1, 2
ZOOLOGY	330 Ethology	2	1
ZOOLOGY/WL ECOL	335 Human/Animal Relationships: Bio & Philoso	3	2
ZOOLOGY/WL ECOL/ENVIR ST	360 Extinction of Species	3	1
ZOOLOGY/ANTHRO/BOTANY	410 Evolutionary Biology	3	2
ZOOLOGY/ENVIR ST	510 Ecology of Fishes	3	2
ZOOLOGY/ENVIR ST	511 Ecology of Fishes Laboratory	2	2
ZOOLOGY	520 Ornithology	2	2
ZOOLOGY	521 Field Ornithology	2	2
ZOOLOGY	531 Ethology Laboratory	3	1
ZOOLOGY	535 Ecosystem Analysis	3	Even 2
ZOOLOGY/ENTOM	540 Theoretical Ecology	3	Alt 2
ZOOLOGY/FOREST/LAND ARC	565 Principles of Landscape Ecology	2	Odd 2
ZOOLOGY/GEOLOGY/ENVIR ST/ATM OCN	750 Problems in Oceanography	3	Alt 1

CATEGORY 1: Physical, Biological, and/or Natural Science

Department	#	Title	Credits	Semester
ZOOLOGY/BOTANY/FOREST	879	Advanced Landscape Ecology	3	Alt 1
ZOOLOGY/ATM OCN/BOTANY/	911	Oceanography and Limnology Seminar	1	Irr

CATEGORY 2: Social Sciences and/or the Humanities

Department	# Title	Credits	Semester
A A E	319 International Agricultural Economy	3	2
A A E/ENVIR ST/ECON	343 Environmental Economics	3-4	2
A A E	420 Production Economics	3	2
A A E/ECON	474 Economic Problems of Developing Areas	3	2 or SS
A A E/ECON	707 Institutional Economics	3	2
A A E	760 Dynamic Natural Resource Economics	3	Irr
A A E	761 Valuation of Environmental Resources	3	2
ANTHRO/AMER IND	314 Indians of North America	3	2 or SS
ANTHRO	318 Peoples and Cultures of Africa	3-4	2
ANTHRO	458 Primate Behavioral Ecology	3	2 or SS
C A V E	602 Intro to Eval in Continuing and Vocational Ed.	1	Irr
ECON	301 Intermediate Microeconomic Theory	4	All
ECON	302 Intermediate Macroeconomic Theory	4	All
ECON	390 Contemporary Econ Issues	3	1 or SS
ECON	441 Analytical Public Finance	4	2 or SS
ED POL/RUR SOC/SOC	755 Methods of Qualitative Research	3	2
ENVIR ST/URB R PL/ECON/POLI SCI	449 Government and Natural Resources	3-4	SS
ENVIR ST/URB R PL/A A E/ECON/TRAN P U	671 Energy Economics	3	2 or SS
ENVIR ST/URB R PL/CIV ENGR	718 WRM Practicum Planning Seminar	2	2
ENVIR ST/PUB AFFR/URB R PL	809 Energy Analysis & Policy Seminar	3*	1
FOREST	330 Resource-Oriented Recreation Management	3	1
FOREST	630 Resource Policy Analysis for Outdoor Rec	3	Irr
FOREST	875 Special Topics	1-3	2
GEOG/URB R PL	305 Introduction to the City	3-4	1 or 2 or SS
GEOG	336 Our Hazardous Environment	3	1 or SS
GEOG	338 Vegetation: Stability and Change	3	2 or SS
GEOG/ENVIR ST	339 Environmental Conservation	3-4	1, 2, SS
GEOG	348 Latin America	4	2 or SS
GEOG	355 Africa - South of the Sahara	3	2 or SS
GEOG	358 China and Southeast Asia	3	1 or 2 or SS
GEOG	501 Space and Place: Geography of Experience	3	2 or SS
GEOG	519 Environment and the Human Experience	3	2 or SS
GEOG	536 Amer Wilderness: Perception & Preservation	2	2 or SS
GEOG/ENVIR ST	537 Culture and Environment	4	2 or SS
GEOG	538 Humid Tropics: Ecol, Subsistence, Develop.	4	2 or SS
GEOG	548 Problems in the Geography of Latin America	3	1 or 2 or SS
GEOLOGY/ENVIR ST	410 Minerals as a Public Problem	3	1 or 2
GEOLOGY/ENVIR ST	411 Energy Resources	3	1
HISTORY	402 American Urban History since 1870	3-4	1 or 2 or SS
HISTORY/ENVIR ST/GEOG	460 American Environmental History	4	1 or 2 or SS
HISTORY	461 American West to 1850	3-4	1 or 2 or SS
HISTORY	462 American West since 1850	3-4	1 or 2 or SS
HISTORY/ECON	465 The American Economy to 1865	3-4	1 or 2 or SS
HISTORY/ECON	466 The American Economy since 1865	3-4	1 or 2 or SS
HIST SCI	913 Social Aspects in Development of Science	3	1
IND REL/ECON/SOC	628 Comp Ind Relations/Developed Countries I	3	2 or SS
IND ENGR/PSYCH	652 Sociotechnical Systems	3	1
IND REL/ECON	453 Collective Bargaining and Public Policy	3	2 or SS
IND REL/SOC/ECON	628 Compare Ind Relations in Devel Countries	3	2 or SS
JOURN	614 Communication and Public Opinion	4	1 or SS
JOURN	618 Mass Communication and Political Behavior	4	2 or SS

CATEGORY 2: Social Sciences and/or the Humanities

Department	# Title	Credits	Semester
JOURN	675 Topics in Gov't & Mass Media: Political Econ	3	1 or SS
JOURN/L SC COM/ENVIR ST	860 Science and Environment Communication	3	Irr
PUB AFFR/POLI SCI	819 Quantitative Methods for Public Policy	3	2
PUB AFFR/POLI SCI	869 Workshop in Program and Policy Analysis	3	2
PUB AFFR/POLI SCI	871 Public Program Evaluation	3	Irr
PUB AFFR/URB R PL/POLI SCI	874 Policy-Making Process	3	1
PUB AFFR/URB R PL/POLI SCI	878 Public Administration	3	2
PUB AFFR	880 Micro-Economic Policy Analysis	3	1
PUB AFFR/A A E/ENVIR ST	881 Benefit Cost Analysis	3	1
LAND ARC	677 Cultural Resources Pres & Landscape Hist	3	2 or SS
LAND ARC	777 Methods: Hist/Cultural Resource Preserv	3	Irr
LAW	731 Constitutional Law I	3-4	All
LAW/URB R PL	830 Land Use Controls	3	1
LAW	837 Regulated Industries	2-3	2
LAW	845 Water Rights Law	2-3	2
LAW	848 Environmental Law and Institutions	3	2
LAW	928 Selected Problems in Land Law Seminar	2-3	Irr
LAW	940 Law and Contemporary Problems	2-3	All
LAW	988 Selected Problems in Environ Law Seminar	2-3	All
L SC COM/JOURN/ENVIR ST	861 Environmental Info & Education Programs	3	1
MED HIST/HIST SCI	668 Environmental Health in Global Perspective	3	2
M&ENVTOX/PL PATH/ENVIR ST	368 Environ Law, Toxic Subst., and Conserv.	2	Odd 2
PHILOS	441 Environmental Ethics	3-4	1 or 2 or SS
POLI SCI	424 American Parties and Politics	3-4	1 or 2 or SS
POLI SCI	426 Legislative Process	3-4	1 or 2 or SS
POLI SCI	472 Politics of Pressure Groups	3-4	1 or 2 or SS
POLI SCI	473 Public Opinion	3-4	1 or 2 or SS
POLI SCI/ENVIR ST/GEOLOGY	512 Science and Government	3-4	1 or 2 or SS
POLI SCI/PUB AFFR	530 Ethics and Values in Policy Making	3-4	1 or 2 or SS
POLI SCI	551 Quantitative Analysis of Political Data	3-4	1 or 2 or SS
POLI SCI	630 Latin American Politics	3-4	Irr
POLI SCI	817 Empirical Methods of Political Inquiry	3	2
POLI SCI	818 Topics in Analysis of Political Data	3	1
POLI SCI	824 Politics and the Social Process	3	Irr
POLI SCI	854 Nation, State, and Cultural Pluralism	3	Irr
POLI SCI	904 Seminar: American Politics	3	All
PUB AFFR/URB R PL/POLI SCI	974 Topics in Public Affairs	3	1 or 2
RUR SOC/SOC	541 Social Behavior and Natural Resources	3	Irr
RUR SOC/SOC	617 Community Development	3	2 or SS
RUR SOC/SOC	650 Sociology of Agriculture	3	2 or SS
RUR SOC/SOC	748 Environmental Sociology	3	1
RUR SOC/SOC	875 Soc Policy & Mgt/Nat'l Parks & Protect Area	1-4	All
RUR SOC/SOC	948 Environmental and Resources Sociology	3	1
RUR SOC/SOC	985 Research: Sci, Tech, Ag Resources	1-3	All
SOC	573 Strategies and Assess of Social Change	3	Irr
SOC	633 Social Stratification	3	Alt 1, 2, SS
SOC/URB R PL	677 Urbanism & Urbanization	3	1 or 2 or SS
SOC/RUR SOC	725 Sociology of Economic Change	3	Irr
SOC/RUR SOC	745 Sociological Perspectives/Science & Tech	3	Irr
SOC/RUR SOC	940 Seminar: Sociology of Economic Change	3	2
SOC/RUR SOC	971 Seminar Topics in Demography and Ecology	3	2

CATEGORY 2: Social Sciences and/or the Humanities

Department	#	Title	Credits	Semester
URB R PL/LAND ARC/ENVIR ST/ETD	548	Environmental Aesthetics	2-3	1
URB R PL	590	Contemporary Topics in U&R Planning	1-3	Irr
URB R PL	601	Site Planning	3	2
URB R PL	731	Intro to Regional Planning	3	2
URB R PL	751	Intro to Financial Planning	3	2
URB R PL	814	Environ & Altern Dispute Resolut in Planning	3	2
URB R PL/ENVIR ST	821	Resources Policy Issues: Regional & Nat'l	2-3	2
URB R PL/CIV ENGR	839	Land Use & Com Sys Planning	3	1
URB R PL/ENVIR ST	843	Land Use Policy and Planning	3	1
URB R PL/ENVIR ST	865	Water Resources Institutions and Policies	3	Odd 1
URB R PL	945	Seminar/Land Use & Comm Develop Issue	3	2
URB R PL/POLI SCI	969	Trends and Issues in Public Planning	3	All
ZOOLOGY/WL ECOL	335	Human/Animal Relationships: Bio & Philoso	3	2

CATEGORY 3: Area of Measurement and Analysis

Department	# Title	Credits	Semester
A A E/ECON	426 Quant. Meth in Ag and Applied Econ	3	2
A A E	636 Applied Econometric Analysis	3	2
AGRONOMY	771 Experimental Designs	1	2
BOTANY/LAND ARC	670 Adaptive Restoration Lab	2	1
C A V E	602 Intro to Eval in Continuing and Vocational Ed.	1	Irr
CIV ENGR	307 Fundamntl Computations/Land Info Systems	1	1
CIV ENGR	308 Spatial Frameworks for Land Info Systems	1	1
CIV ENGR	309 Intro to US Public Land System	1	Irr
CIV ENGR	310 Fluid Mechanics	3	1, SS
CIV ENGR	315 Hydrology	3	1
CIV ENGR	357 An Introduction to GIS	4	1
CIV ENGR	365 City Planning	3	All
CIV ENGR/ENVIR ST/FOREST	403 Geometric Analysis of Vertical Aerial Photos	1	1 or SS
CIV ENGR/ENVIR ST	405 Digital Photogrammetry	1	1
CIV ENGR/ENVIR ST	406 Remote Sensing Instrumentation	1	1
CIV ENGR	407 Adj. For Land Info and Surveying	1	1
CIV ENGR	408 Adj. For Control Surveying Networks	1	1
CIV ENGR	414 Hydraulic Design	3	2
CIV ENGR	423 Air Pollution Effects, Measurement, Control	3	Irr
CIV ENGR	500 Water Chemistry	3	1
CIV ENGR	501 Water Analysis - Intermediate	2	1
CIV ENGR	521 Industrial Pollution Control	3	Irr
CIV ENGR	571 Urban Transportation Planning	3	1
CIV ENGR	716 Statistical Modeling of Hydrologic Systems	3	Alt 1
CIV ENGR/ENVIR ST	950 Environmental Monitoring Seminar	1	All
ED POL/RUR SOC/SOC	755 Methods of Qualitative Research	3	2
ENVIR ST/CIV ENGR/FOREST/ G L E	301 Intro to Aerial Photographic Systems	1	1 or SS
ENVIR ST/CIV ENGR/FOREST/ G L E	302 Intro/Elec-opt&Micro Remote Sensng Syst	1	1 or SS
ENVIR ST/CIV ENGR/FOREST/ G L E	304 Remote Sensing Vis Image & GIS Integration	1	1 or SS
ENVIR ST/BOTANY/FOREST	461 Environmental Systems Concepts	3	Odd 2
ENVIR ST/CIV ENGR/LAND ARC	556 Remote Sensing Image Processing	3	1, SS
ENVIR ST	710 Field Investigations in Wetland Ecology	3	1
ENVIR ST/PUB AFFR/URB R PL	810 Energy Analysis Seminar	1-3	2
FOREST	300 Forest Biometry	4	2
FOREST/A A E/ENVIR ST	652 Decision Methods for Natural Resource Mgrs	3-4	2
GEOG/ENVIR ST	325 Analysis of the Physical Environment	4	1 or 2 or SS
GEOG	360 Quantitative Methods in Geographic Analysis	4	1 or 2 or SS
GEOG	370 Introduction to Cartography	4	1 or SS
GEOG/GEOLOGY	524 Advanced Landform Geography	3	2 or SS
GEOG	560 Advanced Quantitative Methods	3	2
GEOLOGY	375 Introductory Geochemistry	3	Alt
GEOLOGY/G L E	627 Hydrogeology	3-4	1
GEOLOGY	724 Groundwater Flow Modeling	3	2
GEOLOGY	727 Advanced Hydrogeology-Selected Topics	1-3	2
GEOLOGY	729 Field Applications in Hydrogeology	2	Alt 2
IND ENGR	613 Mult Crit Eval Utility Assess Models & Meth	3	Irr
IND ENGR/PSYCH	652 Sociotechnical Systems	3	1
JOURN	658 Communication Research Methods	4	1
L SC COM	960 Seminar-Science and Environ. Com	3	1 or 2
PUB AFFR/POLI SCI	819 Quantitative Methods for Public Policy	3	2
PUB AFFR/POLI SCI	869 Workshop in Program and Policy Analysis	3	2
PUB AFFR	880 Micro-Economic Policy Analysis	3	1
PUB AFFR/A A E/ENVIR ST	881 Benefit Cost Analysis	3	1
LAND ARC/CIV ENGR/ENVIR ST	655 Computerized Land Info Systems	3	2 or SS

CATEGORY 3: Area of Measurement and Analysis

Department	# Title	Credits	Semester
LAND ARC/ENVIR ST/SOIL SCI	695 Applications of GIS in Natural Resources	3	1
LAND ARC	740 Research in Landscape Architecture	3	2
LAND ARC	777 Methods: Hist/Cultural Resource Preserv	3	Irr
L SC COM/FAM COM	505 Publications Editing	3	1 or SS
L SC COM	660 Statistical Techniques in Comm. Research	3	2
L SC COM/JOURN/ENVIR ST	861 Environmental Info & Education Programs	3	1
M E	466 Air Pollution Effects, Measure, & Control	3	2
PL PATH	602 Ecol, Epidem, and Control/Plant Diseases	3	Alt 1
POLI SCI	551 Quantitative Analysis of Political Data	3-4	1 or 2 or SS
POLI SCI	817 Empirical Methods of Political Inquiry	3	2
POLI SCI	818 Topics in Analysis of Political Data	3	1
SOC/RUR SOC	357 Methods of Sociological Inquiry	3-4	1 or 2 or SS
SOC/RUR SOC	358 Design and Analysis of Social Research	3	2 or SS
SOC/RUR SOC	360 Statistics for Sociologists	4	1, 2, SS
SOC/JOURN/POLI SCI/URB R PL	544 Intro to Survey Research	3	2 or SS
SOIL SCI	325 Pedology	3	1
STAT	301 Intro to Statistical Methods	3	1, 2, SS
STAT	302 Intro to Statistical Methods II	3	2
STAT	311 Intro to Mathematical Statistics	4	1, SS
STAT	312 Intro to Mathematical Statistics	4	1, SS
STAT	313 Intro to Mathematical Statistics		1
STAT	314 Intro to Mathematical Statistics		2
STAT	333 Applied Regression Analysis	3	1, 2, SS
STAT	411 Intro to Sample Survey Theory and Methods	3	1
STAT/M E	424 Statistical Experiment Design for Engineers	3	1, 2, SS
STAT/FOREST/HORT	571 Statistical Methods for Bioscience I	4	1
STAT/FOREST/HORT	572 Statistical Methods for Bioscience II	4	2
URB R PL/SOC WORK	721 Methods of Planning Analysis	3	1
URB R PL/PUB AFFR/ENVIR ST	809 Energy Analysis and Policy Seminar	1-3	1
URB R PL/ETD/FOREST	955 Pract Res Design & Methods/Empirical Plan	3	2
WL ECOL	379 Principles of Wildlife Management	3	2
WL ECOL	561 Wildlife Management Techniques	3	1
WL ECOL	655 Animal Population Dynamics	3	2
ZOOLOGY	535 Ecosystem Analysis	3	Even 2
ZOOLOGY/ENTOM	540 Theoretical Ecology	3	Alt 2
ZOOLOGY/GEOLOGY/ENVIR ST/ATM OCN	750 Problems in Oceanography	3	Alt 1
ZOOLOGY/BOTANY/FOREST	879 Advanced Landscape Ecology	3	Alt 1

CATEGORY 4: Individual Program Focus (including research seminar and research credits)

Department	#	Title	Credits	Semester
ENVIR ST	992	Special Topics in Environment & Resources	2	1 or 2
ENVIR ST	993	Seminar-Research Methods in ER	2	2

To meet the seminar requirement, either ENVIR ST 992 or ENVIR ST 993 must be taken once (for each degree) by Environment and Resources students. ENVIR ST 992 may be used under an appropriate breadth category (depending on the topic covered). ENVIR ST 993 may only be used in Category 4.