

Water Resources Management Degree Program Examples

The examples below show some of the ways which a student can tailor the WRM curriculum to fit their interests and needs. Each of the examples listed below was completed by a WRM student. Descriptions of almost all these courses can be found in the Academic Guide at <https://guide.wisc.edu/courses/>.

Example 1

Area Specialty: Limnology/Fisheries

Undergraduate Major: Environmental Science

Category A: Natural Science and Technology

CEE 415 Hydrology (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 449 Government and Natural Resources (3 credits)

ENV 865 Water Resources Institutions and Policies (3 credits)

ENV 860 Science and Environmental Communication (3 credits)

Category C: Analytical and Design Tools in Water Resources

STAT 571 Statistical Methods in Bioscience I (4 credits)

STAT 572 Statistical Methods in Bioscience II (4 credits)

Area Specialty

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ENV 510 Ecology of Fishes (3 credits)

ENV 511 Ecology of Fishes Lab (2 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

ZOO 955 Limnology Seminar: Student Consulting Project (1 credit)

ENV 750 Problems in Oceanography: Sapelo Island Research Project (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 2

Area Specialty: Wisconsin Natural Resources

Undergraduate Major: Environmental Science

Category A: Natural Science and Technology

ENV 315 Limnology-Conservation of Aquatic Resources (2 credits)

CEE 415 Hydrology (3 credits)

ZOO 725 Ecosystem Concepts (3 credits)

ENV 901 Graduate Orientation Seminar (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

LAW 848 Intro to Environmental Law (3 credits)

ENV 449 Government and Natural Resources (3 credits)

ENV 865 Water Resources Institutions and Policies (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 575 Assessment of Environmental Impact (3 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

Area Specialty

GEOG 460 American Environmental History (4 credits)

AMIN 314 Indians of North America (3 credits)

AMIN 444 Native American Environmental Issues and Media (3 credits)

ENV 510 Ecology of Fishes (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floater” credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: “floater” credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 3

Area Specialty: Global Perspectives in Sustainability and Development

Undergraduate Major: Civil Engineering

Category A: Natural Science and Technology

CEE 415 Hydrology (3 credits)

CEE 619 Topic: Dynamics of Floods and Flood Risk (3 credits)

ENV 900 Topic: Latin American Wildlife Conservation (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 349 Climate Change Governance (3 credits)

URPL 865 Water Resources Institutions and Policies (3 credits)

FWE 531 Natural Resource Economics (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 416 Water Resources Systems Analysis (3 credits)

CEE 619 Topic: Hydroclimatology (3 credits)

Area Specialty

GEOG 970 Remote Sensing for International Development (3 credits)

RMI 650 Sustainability, Environmental and Social Risk Management (3 credits)

MHR 710 Challenges and Solutions in Business Sustainability (3 credits)

URPL 814 Environmental and Alternative Dispute Resolution (3 credits)

SOC 630 Sociology of Developing Societies/Third World (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 4

Area Specialty: Water Resources Engineering

Undergraduate Major: Civil Engineering

Category A: Natural Science and Technology

SOIL 322 Physical Principles of Soil and Water Management (3 credits)

BOT 725 Ecosystem Concepts (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 865 Water Resources Institutions and Policies (3 credits)

ENV 449 Government and Natural Resources (3 credits)

AAE 343 Environmental Economics (3 credits)

Category C: Analytical and Design Tools in Water Resources

GEOG 377 Intro to GIS (3 credits)

CEE 716 Statistical Modelling of Hydrologic Systems (3 credits)

Area Specialty

CEE 501 Water Analysis-Intermediate (2 credits)

CEE 514 Coastal Engineering (3 credits)

CEE 414 Hydrologic Design (3 credits)

CEE 619 Topic: Hydroclimatology (3 credits)

CEE 919 Hydraulic Engineering and Fluid Mechanics Seminar (1 credit)

CEE 411 Open Channel Hydraulics (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 5

Area Specialty: International Water Resources

Undergraduate Major: Geology

Category A: Natural Science and Technology

CEE 500 Water Chemistry (3 credits)

CEE 310 Fluid Mechanics (3 credits)

GEOS 875 Geochemical-Biogeochemical Modeling (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 339 Environmental Conservation (4 credits)

URPL 843 Land Use Policy and Planning (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floaters” credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: “floaters” credit)

Category C: Analytical and Design Tools in Water Resources

GEOS 875 Topic: MATLAB Seminar (2 credits)

GEOS 724 Groundwater Flow Modeling (3 credits)

GEOS 727 Topic: Solute Transport Modeling (1 credit)

Area Specialty

SOC 630 Sociology of Developing Societies/Third World (3 credits)

CEE 415 Hydrology (3 credits)

GEOG 340 World Regions in Global Context (3 credits)

ENV 865 Water Resources Institutions and Policies (3 credits)

ENV 866 Global Environmental Governance (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 6

Area Specialty: Hydrogeology

Undergraduate Major: Environmental Engineering

Category A: Natural Science and Technology

CEE 415 Hydrology (3 credits)

CEE 500 Water Chemistry (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 865 Water Resources Institutions and Policies (3 credits)

URPL 449 Government and Natural Resources (3 credits)

URPL 590 Topic: Planning for Resilience to Natural Hazards (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 695 Applications of GIS in Natural Resources (3 credits)

GEOS 724 Groundwater Flow Modeling (3 credits)

Area Specialty

GEOS 627 Hydrogeology (4 credits)

GLE 629 Contaminant Hydrogeology (3 credits)

GEOS 727 Topic: Solute Transport Modeling (1 credit)

GEOS 875 Topic: MATLAB Seminar (2 credits)

GEOS 729 Field Applications in Hydrogeology (2 credits)

CEE 716 Statistical Modelling of Hydrologic Systems (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 7

Area Specialty: Water Quality and Public Health

Undergraduate Major: International Studies/German

Category A: Natural Science and Technology

CEE 500 Water Chemistry (3 credits)

ENV 315 Limnology-Conservation of Aquatic Resources (2 credits)

SOIL 324 Soils and Environmental Quality (3 credits)

ENV 901 Graduate Orientation Seminar (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

LAW 848 Intro to Environmental Law (3 credits)

URPL 865 Water Resources Institutions and Policies (3 credits)

GEOG 932 Seminar in American Environmental History (3 credits)

Category C: Analytical and Design Tools in Water Resources

GEOG 970 Seminar in Geographic Information Science (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

Area Specialty

ENV 560 Health Impact Assessment of Global Environmental Change (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

BMI 511 Intro to Biostatistical Methods for Public Health (3 credits)

PHS 797 Intro to Epidemiology (3 credits)

GEOG 377 Intro to GIS (4 credits)

MMI 554 Emerging Infectious Diseases and Bioterrorism (2 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 8

Area Specialty: Urban and Regional Planning

Undergraduate Major: Earth and Environmental Sciences

Category A: Natural Science and Technology

AGROE 724 Agroecosystems and Global Change (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

ENV 560 Health Impact Assessment of Global Environmental Change (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 865 Water Resources Institutions and Policies (3 credits)

PUBAF 874 Policy Making Process (3 credits)

URPL 917 Public Participation (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 695 Applications of GIS in Natural Resources (3 credits)

GEOG 500 Qualitative Strategies in Geography (3 credits)

Area Specialty

URPL 843 Land Use Policy and Planning (3 credits)

URPL 590 Topic: Planning for Natural Hazards (3 credits)

URPL 841 Urban Functions, Spatial Organization and Environmental Form (3 credits)

URPL 611 Urban Design: Theory and Practice (3 credits)

URPL 622 Applications of GIS in Planning (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 9

Area Specialty: Public Administration

Undergraduate Major: Environmental Science, Policy, and Management

Category A: Natural Science and Technology

CEE 415 Hydrology (3 credits)

CEE 320 Environmental Engineering (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 878 Public Management (3 credits)

PUBAF 866 Global Environmental Governance (3 credits)

LAW 845 Water Rights Law (3 credits)

Category C: Analytical and Design Tools in Water Resources

PUBAF 818 Intro to Statistical Methods for Public Policy Analysis (3 credits)

PUBAF 819 Advanced Statistical Methods for Public Policy Analysis (3 credits)

Area Specialty

ENV 560 Health Impact Assessment of Global Environmental Change (3 credits)

PUBAF 895 Performance Management (3 credits)

PUBAF 873 Intro to Public Policy Analysis (3 credits)

PUBAF 881 Benefit-Cost Analysis (3 credits)

PUBAF 871 Public Program Evaluation (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 10

Area Specialty: Land and Water Resources Policy and Planning

Undergraduate Major: Secondary Education and Social Studies

Category A: Natural Science and Technology

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

BOT 402 Dendrology (2 credits)

ZOO 955 Topic: Abrupt Change in Ecological Systems (1 credit)

ENV 361 Wetlands Ecology (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 731 Intro to Regional Planning (3 credits)

URPL 590 Topic: Planning for Natural Hazards Resiliency (3 credits)

LAW 918 Human Rights, Climate Change, and the Environment (3 credits)

Category C: Analytical and Design Tools in Water Resources

URPL 841 Urban Functions, Spatial Organization, and Environmental Form (3 credits)

URPL 622 GIS Applications for Planners (3 credits)

Area Specialty

URPL 865 Water Resources Institutions and Policies (3 credits)

URPL 843 Land Use Policy and Planning (3 credits)

GEOG 930 Land Use Land Cover Change (3 credits)

LAW 988 Natural Resources Law (3 credits)

LAW 848 Intro to Environmental Law (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 11

Area Specialty: Fluvial Geomorphology

Undergraduate Major: Environmental Biology

Category A: Natural Science and Technology

CEE 415 Hydrology (3 credits)

CEE 500 Water Chemistry (3 credits)

BSE 517 Small Watershed Engineering (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

JMC 614 Communication and Public Opinion (4 credits)

LAW 845 Water Rights Law (3 credits)

GEOG 439 U.S. Environmental Policy and Regulation (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 695 Applications of GIS in Natural Resources (3 credits)

CEE 515 Hydroclimatology for Water Resources Management (3 credits)

Area Specialty

GEOG 329 Landforms and Landscapes of North America (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

GEOG 320 Geomorphology (3 credits)

CEE 514 Coastal Engineering (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: "floaters" credit)

ENV 901 Graduate Orientation Seminar (1 credit: "floaters" credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: "floaters" credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 12

Area Specialty: Biological Systems Engineering

Undergraduate Major: Hydrology and Water Resources

Category A: Natural Science and Technology

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

ENV 324 Soils and Environmental Quality (3 credits)

ENV 901 Graduate Orientation Seminar (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

PHIL 441 Environmental Ethics (4 credits)

ENV 671 Energy Economics (3 credits)

URPL 874 Policy-Making Process (3 credits)

Category C: Analytical and Design Tools in Water Resources

COMPSCI 302 Intro to Programming (3 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

Area Specialty

BSE 571 Small Watershed Engineering (3 credits)

BSE 367 Renewable Energy Systems (3 credits)

BSE 372 On-Site Waste Water Treatment and Dispersal (2 credits)

BSE 472 Sediment and Bio-Nutrient Engineering (3 credits)

GEOG 377 Intro to GIS (4 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 13

Area Specialty: Hydrologic Modeling

Undergraduate Major: Environmental Science

Category A: Natural Science and Technology

CEE 415 Hydrology (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

BOT 330 Algae (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 449 Government and Natural Resources (3 credits)

ENV 349 Climate Change Governance (3 credits)

CES 375 Topic: Water and Politics of the Anthropocene (3 credits)

Category C: Analytical and Design Tools in Water Resources

STAT 571 Statistical Methods for Bioscience I (4 credits)

GEOG 371 Intro to Environmental Remote Sensing (3 credits)

Area Specialty

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

CEE 716 Statistical Modelling of Hydrologic Systems (3 credits)

CEE 515 Hydroclimatology for Water Resources Management (3 credits)

CEE 500 Water Chemistry (3 credits)

ENV 506 Modeling and Analysis of Environmental Systems (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 14

Area Specialty: Sustainable Agriculture and Environmental Engineering

Undergraduate Major: English and Philosophy

Category A: Natural Science and Technology

CEE 500 Water Chemistry (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

PUBAF 881 Benefit-Cost Analysis (3 credits)

PUBAF 878 Public Management (3 credits)

PUBAF 871 Public Program Evaluation (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 415 Hydrology (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

Area Specialty

BSE 472 Sediment and Bio-Nutrient Engineering and Management (3 credits)

CEE 320 Environmental Engineering (3 credits)

AGRON 375 Topic: Food Systems, Sustainability, and Climate Change (3 credits)

ENV 724 Agroecosystems and Global Change (3 credits)

CEE 619 Topic: CUAHSI On-line Hydrology (2 credits)

SOIL 472 Animal Agriculture and Sustainable Development (1 credit)

CEE 618 Topic: Lake and River Rehabilitation (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 15

Area Specialty: Watershed Science & Management

Undergraduate Major: Environment

Category A: Natural Science and Technology

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

CEE 500 Water Chemistry (3 credits)

SOIL 321 Soils and Environmental Chemistry (3 credits)

FWE 632 Ecotoxicology: The Chemical Players (1 credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 865 Water Resources Institutions and Policies (3 credits)

URPL 830 Land Use Controls (3 credits)

URPL 841 Urban Functions, Spatial Organization and Environmental Form (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 377 Intro to GIS (4 credits)

ENV 371 Intro to Environmental Remote Sensing (3 credits)

Area Specialty

CEE 501 Water Analysis-Intermediate (3 credits)

CEE 415 Hydrology (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

SOIL 575 Assessment of Environmental Impact (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 16

Area Specialty: Ecology

Undergraduate Major: Biology-Ecology

Category A: Natural Science and Technology

BSE 571 Small Watershed Engineering (3 credits)

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

ZOO 510 Ecology of Fishes (3 credits)

ZOO 511 Ecology of Fishes Lab (2 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ECON 343 Environmental Economics (3 credits)

URPL 741 Intro to Planning (3 credits)

CES 541 Environmental Stewardship and Social Justice (3 credits)

Category C: Analytical and Design Tools in Water Resources

SOIL 575 Assessment of Environmental Impact (3 credits)

ENV 377 Intro to GIS (4 credits)

Area Specialty

BOT 802 Physiological Plant Ecology (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

LARC 375 Topic: Natural Landscaping (1 credit)

CEE 372 On-Site Waste Water Treatment and Dispersal (2 credits)

CEE 501 Water Analysis-Intermediate (3 credits)

FWE 306 Terrestrial Vertebrates: Life History and Ecology (4 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 17

Area Specialty: Water Resources Engineering

Undergraduate Major: Watershed Science

Category A: Natural Science and Technology

BSE 367 Renewable Energy Systems (3 credits)

BSE 372 On-Site Waste Water Treatment and Dispersal (2 credits)

BSE 571 Small Watershed Engineering (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 439 U.S. Environmental Policy and Regulation (3 credits)

ENV 441 Environmental Ethics (4 credits)

ISYE 729 Behavioral Analysis of Management Decision Making (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 716 Statistical Modelling of Hydrologic Systems (3 credits)

GEOG 378 Intro to Geocomputing (4 credits)

Area Specialty

CEE 522 Hazardous Waste Management (3 credits)

CEE 428 Water Treatment Plant Design (3 credits)

BSE 473 Irrigation and Drainage Systems Design (2 credits)

CEE 421 Environmental Sustainability Engineering (3 credits)

CEE 416 Water Resources Systems Analysis (3 credits)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: “floater” credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 18

Area Specialty: Restoration and Restoration Engineering

Undergraduate Major: Wildlife Ecology

Category A: Natural Science and Technology

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

CEE 500 Water Chemistry (3 credits)

CEE 618 Topic: Lake and River Rehabilitation (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

CES 375 Topic: Water and Politics of the Anthropocene (3 credits)

ENV 439 U.S. Environmental Policy and Regulation (3 credits)

URPL 843 Land Use Policy and Planning (3 credits)

LEGST 430 Law and Environment (3 credits)

Category C: Analytical and Design Tools in Water Resources

SOIL 695 Applications of GIS in Natural Resources (3 credits)

CEE 415 Hydrology (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

Area Specialty

SOIL 372 On-Site Waste Water Treatment and Dispersal (3 credits)

GEOS 627 Hydrogeology (4 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

CEE 514 Coastal Engineering (3 credits)

CEE 427 Solid and Hazardous Waste Engineering (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 19

Area Specialty: Upland Watershed Management

Undergraduate Major: Atmospheric & Oceanic Studies and Environmental Studies

Category A: Natural Science and Technology

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

GEOS 627 Hydrogeology (4 credits)

SOIL 324 Soils and Environmental Quality (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

JMC 614 Communication and Public Opinion (4 credits)

URPL 874 Policy-Making Process (3 credits)

SOC 617 Community Development (3 credits)

Category C: Analytical and Design Tools in Water Resources

STAT 301 Intro to Statistical Methods (3 credits)

ENV 556 Remote Sensing Digital Image Processing (3 credits)

Area Specialty

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

AGROE 724 Agroecosystems and Global Change (3 credits)

CEE 501 Water Analysis-Intermediate (3 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 20

Area Specialty: Law

Undergraduate Major: English and Spanish

Category A: Natural Science and Technology

ENV 324 Soils and Environmental Quality (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

ENV 367 Renewable Energy Systems (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 349 Climate Change Governance (3 credits)

URPL 843 Land Use Policy and Planning (3 credits)

URPL 865 Water Resources Institutions and Policies (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 377 Intro to GIS (4 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

Area Specialty

LAW 744 Administrative Law (3 credits)

LAW 848 Intro to Environmental Law (3 credits)

LAW 988 Natural Resources Law (3 credits)

LAW 845 Water Rights Law (3 credits)

LAW 940 Energy Law (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 21

Area Specialty: Business, Environment, and Social Responsibility

Undergraduate Major: Accounting

Category A: Natural Science and Technology

ENV 339 Environmental Conservation (4 credits)

FWE 360 Extinction of Species (3 credits)

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 865 Water Resources Institutions and Policies (3 credits)

POLISCI 866 Global Environmental Governance (3 credits)

ENV 368 Environmental Law, Toxic Substances and Conservation (2 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floater” credit)

Category C: Analytical and Design Tools in Water Resources

URPL 721 Methods of Planning Analysis (3 credits)

REALEST 720 Urban Economics (3 credits)

Area Specialty

GENBUS 601 Systems Thinking and Sustainable Business (3 credits)

ENV 668 Green Politics: Global Experience, American Prospects (3 credits)

GENBUS 600 Topic: Environmental Strategy and Sustainability (3 credits)

ENV 923 Seminar-Land Problems: Institutional Development (3 credits)

OTM 770 Sustainable Approaches to System Improvement (4 credits)

AAE 531 Natural Resource Economics (3 credits)

MHR 710 Challenges and Solutions in Business Sustainability (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 22

Area Specialty: Natural Resources Policy and Law

Undergraduate Major: Geoscience-Hydrogeology

Category A: Natural Science and Technology

BSE 571 Small Watershed Engineering (3 credits)

BOT 725 Ecosystem Concepts (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

LAW 845 Water Rights Law (3 credits)

LAW 848 Intro to Environmental Law (3 credits)

URPL 865 Water Resources Institutions and Policies (3 credits)

Category C: Analytical and Design Tools in Water Resources

STAT 571 Statistical Methods for Bioscience I (4 credits)

ENV 881 Benefit-Cost Analysis (3 credits)

Area Specialty

PUBAF 874 Policy-Making Process (3 credits)

URPL 843 Land Use Policy and Planning (3 credits)

ENV 515 Natural Resources Policy (3 credits)

SOCWRK 852 Influencing Political Systems for Social Change (2 credits)

ENV 900 Seminar-Botswana: Ecology and Environment (2 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: "floaters" credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: "floaters" credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 23

Area Specialty: Policy and Sustainable Management

Undergraduate Major: Environmental Science

Category A: Natural Science and Technology

ENV 315 Limnology-Conservation of Aquatic Resources (2 credits)

ENV 361 Wetlands Ecology (3 credits)

ENV 324 Soils and Environmental Quality (3 credits)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

ANT 477 Anthropology, Environment and Development (3 credits)

LSC 560 Scientific Writing (3 credits)

CES 375 Topic: Water and Politics of the Anthropocene (3 credits)

URPL 590 Topic: Engaging the Community in Public Decisions (2 credits)

Category C: Analytical and Design Tools in Water Resources

GEOS 627 Hydrogeology (4 credits)

MHR 728 Bargaining, Negotiating and Dispute Settlement for Managers (3 credits)

Area Specialty

ENV 865 Water Resources Institutions and Policies (3 credits)

RMI 650 Sustainability, Environmental and Social Risk Management (3 credits)

LAW 845 Water Rights Law (3 credits)

CES 405 Education for Sustainable Communities (3 credits)

MHR 710 Challenges and Solutions in Business Sustainability (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 24

Area Specialty: Environmental Health

Undergraduate Major: Politics

Category A: Natural Science and Technology

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

ENV 911 Limnology and Marine Science Seminar (1 credit)

ENV 560 Health Impact Assessment of Global Environmental Change (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 866 Global Environmental Governance (3 credits)

URPL 865 Water Resources Institutions and Policies (3 credits)

PUBAF 974 Topic: Nonprofit and Philanthropic Organizations (3 credits)

Category C: Analytical and Design Tools in Water Resources

GEOG 970 Seminar in Geographic Information Science (3 credits)

PUBAF 881 Benefit-Cost Analysis (3 credits)

Area Specialty

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

PHS 789 Principles of Environmental Health: A Systems Thinking Approach (3 credits)

LSC 560 Scientific Writing (3 credits)

PHS 797 Intro to Epidemiology (3 credits)

BMI 511 Intro to Biostatistical Methods for Public Health (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 25

Area Specialty: Watershed Planning

Undergraduate Major: Environmental Earth Sciences

Category A: Natural Science and Technology

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

SOIL 322 Physical Principles of Soil and Water Management (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 449 Government and Natural Resources (3 credits)

URPL 601 Site Planning (3 credits)

ENV 337 Nature, Power and Society (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 416 Water Resources Systems Analysis (3 credits)

CEE 310 Fluid Mechanics (3 credits)

Area Specialty

CEE 415 Hydrology (3 credits)

GEOS 627 Hydrogeology (4 credits)

BSE 571 Small Watershed Engineering (3 credits)

CEE 716 Statistical Modelling of Hydrologic Systems (3 credits)

CEE 500 Water Chemistry (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 26

Area Specialty: Watershed Ecology and Community Outreach

Undergraduate Major: International Studies and Environmental Studies

Category A: Natural Science and Technology

LARC 668 Restoration Ecology (3 credits)

ZOO 510 Ecology of Fishes (3 credits)

SOIL 324 Soils and Environmental Quality (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 865 Water Resources Institutions and Policies (3 credits)

CSCS 460 Civil Society and Community Leadership (3 credits)

URPL 731 Intro to Regional Planning (3 credits)

Category C: Analytical and Design Tools in Water Resources

LARC 695 Applications of GIS in Natural Resources (3 credits)

ENV 532 Applications of GIS in Planning (3 credits)

Area Specialty

ENV 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

URPL 590 Topic: Engaging the Community in Public Decisions (2 credits)

FWE 875 Topic: Policy and Politics-Environmental Information (3 credits)

LSC 432 Social Media for the Life Sciences (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: "floaters" credit)

ENV 901 Graduate Orientation Seminar (1 credit: "floaters" credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 27

Area Specialty: Water Quality and Pollution Monitoring

Undergraduate Major: Environmental Studies

Category A: Natural Science and Technology

ENV 471 Intro to Environmental Health (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

ENV 724 Agroecosystems and Global Change (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 865 Water Resources Institutions and Policies (3 credits)

ENV 866 Global Environmental Governance (3 credits)

PUBAF 974 Topic: Challenges in International Development Policy (3 credits)

Category C: Analytical and Design Tools in Water Resources

LARC 622 Applications of GIS in Planning (3 credits)

ENV 371 Intro to Environmental Remote Sensing (3 credits)

Area Specialty

GEOS 627 Hydrogeology (4 credits)

SOIL 322 Physical Principles of Soil and Water Management (3 credits)

CEE 631 Toxicants in the Environment: Sources, Distribution, Fate, and Effects (3 credits)

SOIL 324 Soils and Environmental Quality (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floaters” credit)

ENV 901 Graduate Orientation Seminar (1 credit: “floaters” credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 28

Area Specialty: Environmental Planning and Policy

Undergraduate Major: Geology

Category A: Natural Science and Technology

GEOS 627 Hydrogeology (4 credits)

SOIL 532 Environmental Biophysics (3 credits)

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 865 Water Resources Institutions and Policies (3 credits)

INTERHE 801 Topics in Human Ecology: Storytelling, Messaging, Communicating (1 credit)

URPL 590 Topic: Engaging the Community in Public Decisions (2 credits)

LAW 845 Water Rights Law (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 310 Fluid Mechanics (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

Area Specialty

ENV 843 Land Use Policy and Planning (3 credits)

URPL 841 Urban Functions, Spatial Organization and Environmental Form (3 credits)

ZOO 565 Principles of Landscape Ecology (2 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

AGROE 710 Seminar-Agricultural Policy (1 credit)

MEDICINE 710 Improvisational Theatre for Scientists (1 credit)

CEE 619 Topic: CUAHSI On-line Hydrology (1 credit)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: "floaters" credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 29

Area Specialty: Watershed Planning

Undergraduate Major: Environmental Studies

Category A: Natural Science and Technology

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

SOIL 301 General Soil Science (4 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 865 Water Resources Institutions and Policies (3 credits)

URPL 843 Land Use Policy and Planning (3 credits)

LAW 845 Water Rights Law (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 415 Hydrology (3 credits)

URPL 841 Urban Functions, Spatial Organization and Environmental Form (3 credits)

Area Specialty

ENV 361 Wetlands Ecology (3 credits)

ZOO 510 Ecology of Fishes (3 credits)

ZOO 511 Ecology of Fishes Lab (2 credits)

FWE 402 Dendrology (2 credits)

SOIL 324 Soils and Environmental Quality (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: "floaters" credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: "floaters" credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 30

Area Specialty: Planning: Anthropogenic and Natural Impacts on Soils and Hazards

Undergraduate Major: Natural Resources

Category A: Natural Science and Technology

GEOS 411 Energy Resources (3 credits)

SOIL 324 Soils and Environmental Quality (3 credits)

GEOG 342 Geography of Wisconsin (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 439 U.S. Environmental Policy and Regulation (4 credits)

GEOG 340 World Regions in Global Context (3 credits)

ENV 515 Natural Resources Policy (3 credits)

Category C: Analytical and Design Tools in Water Resources

URPL 734 Regional Economic Problem Analysis (3 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

Area Specialty

ENV 865 Water Resources Institutions and Policies (3 credits)

URPL 721 Methods of Planning Analysis (3 credits)

SOIL 525 Soil Geomorphology (3 credits)

GEOG 526 Human Transformations of Earth Surface Processes (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: "floaters" credit)

ENV 901 Graduate Orientation Seminar (1 credit: "floaters" credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: "floaters" credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 31

Area Specialty: Human/Watershed Interactions and Impact Mitigation

Undergraduate Major: Chemistry

Category A: Natural Science and Technology

CEE 500 Water Chemistry (3 credits)

SOIL 322 Physical Principles of Soil and Water Management (3 credits)

GLE 627 Hydrogeology (4 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

ENV 865 Water Resources Institutions and Policies (3 credits)

LSC 875 Topic: Politics, Science, and Public Engagement (3 credits)

ENV 575 Assessment of Environmental Impact (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 415 Hydrology (3 credits)

ENV 695 Applications of GIS in Natural Resources (3 credits)

Area Specialty

ENV 324 Soils and Environmental Quality (3 credits)

FWE 875 Topic: Freshwater Conservation (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

URPL 590 Topic: Disaster Resilience Design (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: "floaters" credit)

ENV 901 Graduate Orientation Seminar (1 credit: "floaters" credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: "floaters" credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 32

Area Specialty: Conservation and Management of Public Waters

Undergraduate Major: Fisheries and Water Resources

Category A: Natural Science and Technology

ENV 315 Limnology-Conservation of Aquatic Resources (2 credits)

ZOO 316 Laboratory for Limnology-Conservation of Aquatic Resources (3 credits)

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 865 Water Resources Institutions and Policies (3 credits)

ENV 449 Government and Natural Resources (3 credits)

ENV 560 Health Impact Assessment of Global Environmental Change (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 695 Applications of GIS in Natural Resources (3 credits)

ENV 575 Assessment of Environmental Impact (3 credits)

Area Specialty

LARC 668 Restoration Ecology (3 credits)

FWE 375 Topic: Freshwater Conservation (3 credits)

CEE 415 Hydrology (3 credits)

FWE 402 Dendrology (2 credits)

CEE 612 Ecohydrology (3 credits)

ENG 305 Rhetoric, Science, and Public Engagement (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 33

Area Specialty: Hydrology and Watershed Management

Undergraduate Major: Environmental Sciences Policy and Management

Category A: Natural Science and Technology

CEE 311 Hydrosience (3 credits)

ZOO 315 Limnology-Conservation of Aquatic Resources (2 credits)

FWE 375 Topic: Freshwater Conservation (3 credits)

ENV 717 Water Resources Management Practicum Planning Seminar I (1 credit: “floater” credit)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 865 Water Resources Institutions and Policies (3 credits)

ENV 449 Government and Natural Resources (3 credits)

ENV 305 Rhetoric, Science, and Public Engagement (3 credits)

Category C: Analytical and Design Tools in Water Resources

ENV 695 Applications of GIS in Natural Resources (3 credits)

ENV 575 Assessment of Environmental Impact (3 credits)

Area Specialty

ENV 900 Seminar-Stream Ecology and Watershed Management (3 credits)

CEE 415 Hydrology (3 credits)

GEOS 627 Hydrogeology (4 credits)

CEE 612 Ecohydrology (3 credits)

CEE 919 Seminar-Hydraulic Engineering and Fluid Mechanics (1 credit)

ENV 999 Advanced Independent Study: Workshop Report Writing/Editing (1 credit: “floater” credit)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)

Example 34

Area Specialty: Water Resources Modeling and Watershed Planning

Undergraduate Major: Water Science

Category A: Natural Science and Technology

BOT 338 Environmental Biogeography (3 credits)

LARC 668 Restoration Ecology (3 credits)

CEE 415 Hydrology (3 credits)

Category B: Water Resources Institutions and Public Decision-Making Processes

URPL 843 Land Use Policy and Planning (3 credits)

ENV 402 Topic: Natural Hazard Resiliency Planning (3 credits)

ENV 575 Assessment of Environmental Impact (3 credits)

Category C: Analytical and Design Tools in Water Resources

CEE 716 Statistical Modelling of Hydrologic Systems (3 credits)

GEOG 579 GIS and Spatial Analysis (4 credits)

Area Specialty

ENV 315 Limnology-Conservation of Aquatic Resources (2 credits)

URPL 590 Topic: Disaster Resilience Design (3 credits)

CEE 416 Water Resources Systems Analysis (3 credits)

BSE 571 Small Watershed Engineering (3 credits)

COMPSCI 368 Topic: MATLAB Programming (1 credit)

CEE 619 Topic: CUAHSI On-line Hydrology (3 credits)

Synthesis and Integration

ENV 718 Water Resources Management Practicum Planning Seminar II (2 credits)

ENV 719 Water Resources Management Practicum (4 credits)