



ENVIRONMENTAL ANALYSIS & RESOURCES MANAGEMENT MAJOR CONCENTRATION

An Environmental or Resource Management Career?

Environmental analysis & Resources Management includes a range of careers. No single program prepares you for all you will ever need to know in an environmental career. In all areas, there is need for analysts with special expertise and integrators who link diverse information to make management decisions. The analyst looks at “the trees” while the integrator looks at “the forest.” The integrator needs the methods of modern geography to get the job done. These tools and skills relate to Geographic Information Science and digital remote sensing (e.g., satellite image analysis), in addition to the established



Ryan Heise, a Senior in the Environmental Analysis & Resources Management Geography major concentration.

skills of ecological analysis, soil science, wetlands identification, etc.

You should create your own “package” of skills and knowledge to become a competitive environmental management professional. The package is based on the Environ-

mental Analysis & Resource Management Major Concentration, a related minor, and related courses.

After you have begun a career, you will gain more comprehensive knowledge and skills. This major is the starting point. You may also discover that you wish to pursue further study in graduate school.

The Environmental Analysis & Resource Management Major is made up of a core of required courses, and elective courses. (See next page.) The electives you pick depending on your interest.

Your energy, imagination, and drive will define how far you go and in what direction. Good Luck!

Environmental & Resource Management Careers

- Hazardous Waste Planner
- Environmental Manager
- Forestry Technician
- Park Ranger
- Outdoor Guide
- Coastal Zone Manager
- Wetlands Specialist
- Soils Analyst
- Environmental GIS Analyst
- Environmental Remote Sensor
- Permitting
- Environmental Consultant
- Land Conservator

Starting in Community College?

If you begin at a community college, make sure that you get basic skills you will be able to use in environmental analysis & resources management. This includes office and computer competence in word process-

ing, spreadsheets, PowerPoint, etc. Take the general education courses needed for graduation. Do not avoid courses that focus on ecosystems, and U. S. politics and social issues. You may need this background. A public

speaking course is important. Good communication skills will be useful. Don't avoid basic math and critical thinking courses including statistics. You will need these skills. You might want to take business courses too.

University Degree Requirements

Western Michigan University requires all students to have completed 122 semester credit hours to receive a bachelor's degree. This includes any credit hours that have been officially recognized from other colleges or community colleges.

The specific requirements for graduation that will govern you are found in the Western Michigan University Undergraduate Catalog. Since the University changes over time, the version of the Catalog that governs you is the one that was current when

you entered the University.

Your total credit hours will include those of your Environmental Analysis & Re-



Dr. Chansheng He, Environmental Analysis & Resources Management Adviser and core faculty member.

sources Management major, your related minor, general education, and elective courses. Please select these in consultation with an adviser or mentor, so that you can make them work together for you effectively.

This major allows you to arrange a professional internship, to do an independent study project under the guidance of a core faculty member, or even study abroad to experience environmental issues elsewhere in the world. Please plan sufficiently to take advantage of these study opportunities.

Minors for Environmental Analysis & Resources Management Majors

You should choose a minor as listed in the Undergraduate Catalog. Recommended minors can come from either the College of Arts & Sciences or College of Business at Western Michigan University. To minor in the College

of Business you will have to have a GPA of 2.5 or higher to be admitted.

Arts & Science Minors include Public Administration, Communications, Journalism, Practical Writing (English), Geosciences, Biology, Economics, History, American

Studies, Foreign Languages (including Spanish, or selected Asian languages), or Environmental Studies.

College of Business minors include, Management, Business Communication, Real Estate, and General Business.

Internship, Study Abroad, or Research Experiences

We recommend that you consider pursuing a professional internship in your curriculum. You will gain useful perspectives on the working world before entering it. Many employers use internships as a means of discovering whether a person would make a good employee. A number of our interns have received job offers at the end of their internship, and they learn about managing day-to-day environmental issues.

We also recommend that students consider an optional study abroad experience. This is a good way to learn about the world beyond the

U.S., and it gives insight about environmental issues elsewhere.

Finally, we recommend that students consider an optional independent research activity under the supervision of a core faculty member. Carrying through an independent research project demonstrates to employers that you can work self-reliantly to generate answers to important questions. These experiences add value to your degree.



Dr. Gregory Veeck—core faculty member in Environmental Analysis & Resources Management with Andy Cone, 2003 graduating senior.

Environmental Analysis & Resource Management Geography Major

Your complete program of study at Western Michigan University, or at other colleges from which you are transferring credit, constitutes the entire degree curriculum. This Curriculum can be supplemented by adding knowledge and skills from other places also. The more accomplished you are, the more likely you will have a satisfying career in resource management and environmental analysis.

General Education & Liberal Education Curricular Requirements. To complete a college degree at Western Michigan University, each student fulfills “General Education” goals. Each student gains understanding of the natural and social sciences; knowledge of the United States and some international issues/regions; computer, mathematics, and critical reasoning proficiencies, etc. Please see the General Education section of the Undergraduate Catalog for a full description. In addition, students in the College of Arts & Sciences take some additional classes as listed in the Liberal Education Curriculum in the Undergraduate Catalog. These together give students a frame of reference on the world that works for them after graduation. (Believe it or not, students who have studied a foreign language frequently report they have been able to use it effectively in their career.)

Geography Major—Environmental Analysis & Resource Management. A variety of environmental careers exist in business and government. Students prepare for particular career paths by the curricular choices they make. Students should consult with Geography faculty or the Geography Adviser about the courses they choose. This major is made up of two parts, a required core of 17 hours and the remaining 15 hours of elective courses.

• *The Core Courses:*

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| Geography 1050 Physical Geography | 4 cr. hrs. |
| Geography 2050 Human Geography | 3 cr. hrs. |
| Geography 2650 Map, Chart & Air Photo Reading | 3 cr. hrs. |
| Geography 3030 Geographic Inquiry* | 4 cr. hrs. |
| Geography 3500 Conservation & Environmental Management | 3 cr. hrs. |

*Prerequisite: a course in statistics (STAT 1600, 2160, 2600, or 3660)

The Elective Courses: For your remaining hours, we suggest you take at least:

- One Geographic Methods course (preferably Geog 5010 Intro. to Geographic Information Systems, Geog 5570 Environmental Impact Assessment, or Geog 5820 Remote Sensing of the Environment).
- One (maximum) Regional Geography course (e.g., Geog 380 United States & Canada)
- Remaining hours are Elective, but you should choose from Geog 2250 Intro. to Meteorology & Climatology, Geog 2440 Economic Geography, Geog 4120 Professional Experience, Geog 5210 Studies in Meteorology & Climatology, Geog 5530 Water Resources, Geog 5540 Outdoor Recreation: Environment & Planning, Geog 5550 Contemporary Issues in Resource Mgmt., or Geog 5660 Field Geography.

The Related Minor. All Environmental Analysis & Resource Management students select a minor to go with their major. These minors are shown serve as an important complement to the major. Properly selected, the major and the minor strengthen a student for subsequent careers. However, it is not necessary to select a minor that you think will “pay off” later—particularly if you have no personal interest in it. It is often better to select a minor that you have some interest (or “passion” for) because that you stay motivated. We find that students who maintain their enthusiasm often find interesting (even unique) uses for their minors. (Note: Students can also “double major” instead of declaring a minor, or complete a second bachelor’s degree. Please see the Undergraduate Catalog for details.)



Department of Geography faculty possess worldwide experience in Geography and Tourism. From left, back row: Kevin Weakley, Jordan Yin, Rolland Fraser, Lisa DeChano, Gregory Veeck,. Middle Row: James Biles, David Lemberg, Margaret Pearce, Jay Emerson. Front Row: Deborah Che, David Dickason (Chair), Elen Cutrim, Joseph Stoltman. Not Pictured: Eldor Quandt, Chansheng He, Jeroen Wagendorp, and part-time faculty.



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MAKING A
DIFFERENCE**

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Western Michigan University and Environmental Analysis & Resources Management

Founded in 1903, Western Michigan University has had a strong Geography program from the start. The University has nearly 30,000 students with a comprehensive variety of academic programs. Usually about 2,000 of our students come from outside the United States, representing more than 100 countries. Western is one of the U.S.'s 40 largest universities by student size, and by international student size.

The Environmental
Analysis & Resources

Management Program has operated for almost 25 years as a concentration in the Geography major..

With many alumni, we look to enhance our program further.

The University is located in the City of Kalamazoo, in southern Michigan about half way between Chicago and Detroit. Kalamazoo is a safe, small metropolitan area. You can get to Kalamazoo by air, rail and highway, (US-131 and I-94).

The University offers comprehensive cultural and athletic programs. The City offers even more, so there are many opportuni-

ties to attend concerts, theaters and plays, and to participate in recreational athletics.

Michigan lies in the heart of the Great Lakes Region, one of the wonders of the world. The Great Lakes possess one-fifth of the world's surface fresh water. Michigan is a good "laboratory" for environmental issues. Its economic health rests on effective management of environmental issues—surface and ground water, wastes, and urban sprawl and energy.



The center of the main campus of Western Michigan University. The Planning Program is located in Wood Hall to the right of this photo.