Environmental Programs at James Madison University

Website: http://www.jmu.edu/environment/

At JMU, environmental study is embedded in a variety of disciplines. Students from throughout the university have the opportunity to study environmental issues by majoring in an environmental program or choosing a minor that complements any major.

**Majors and Concentrations**

Students wishing to major in a field that addresses environment can choose from the following:

**Biology (B.S.)**
The biology major offers a concentration in ecology and environmental biology.

**Earth Science (B.A.)**
The B.A. in Earth science degree is designed to integrate all the Earth sciences in a systems approach to understanding the Earth.

**Economics (B.A., B.S. and B.B.A)**
Students can pursue a concentration in environmental and natural resource economics within the economics major.

**Engineering (B.S.)**
The JMU engineering program empowers and motivates students to engineer systems for sustainable societies.

**Geographic Science (B.S.)**
The geographic science major, housed in the Department of Integrated Science and Technology, offers a concentration in environmental conservation, sustainability and development.

**Geology (B.S.)**
Within the geology major, students can select a concentration in environmental and engineering geology.

**Integrated Science and Technology (B.S.)**
The ISAT major offers a concentration in the environment.

**Minors**

Any of the environment minors may be taken in conjunction with any STEM (Science, Technology, Engineering and Mathematics) area major. They also may be taken in conjunction with a major from any other JMU academic area in order to explore environmental issues from differing perspectives. The minor coordinators can assist a student in selecting a combination of major and minor study that best responds to a student’s particular environmental interests and career goals.

**Environmental Information Systems**
The cross disciplinary minor in environmental information systems is designed for undergraduates interested in using computer and information management technology to solve environmental problems and improve environmental stewardship.

**Environmental Management**
The cross disciplinary environmental management minor prepares students to apply the principles of environmental science and engineering to contemporary environmental problems in natural resource, industrial and public policy contexts. The minor is particularly suitable for students interested in professional careers in business, natural resources management, and environmental policy and planning.

**Environmental Science**
The environmental science minor draws from courses that focus on the application of scientific concepts and principles to the understanding of environmental problems and their solutions. This is a multidisciplinary program that can be elected by any student. For example, students pursuing programs ranging from the physical, natural or social sciences, to education, journalism or business, all benefit from this broadly based environmental curriculum.

**Environmental Studies**
The environmental studies minor provides a cross-disciplinary education engaging socio-cultural, scientific and technical issues raised by the oft-conflicting needs and desires of globally interacting societies.

**Centers and Institutes**

**Center for Materials Science**
Website: http://csm.jmu.edu/materialsscience/
The Center for Materials Science at James Madison University was established in 1996 as a resource to integrate undergraduate education with basic and applied research in materials science. The center is a multidisciplinary initiative of the College of Integrated Science and Technology, the College of Science and Mathematics, and the School of Engineering. Faculty in five different departments participate in the center. The center provides students the opportunity to develop broad multidisciplinary skills and knowledge in the science of materials.

**Center for Health and Environmental Communication**
Dr. Peter Bsumek, bsumekpk@jmu.edu
Dr. Sharlene Thompson, thompssr@jmu.edu
The Center for Health and Environmental Communication (CHEC) is housed in the School of Communication Studies. The CHEC utilizes the expertise of the school’s faculty and students to facilitate original academic research, coordinate community outreach and advocacy projects, and serve as a community resource on matters related to understanding and improving public and private communication in the health and environmental contexts. The CHEC recognizes that how we communicate is as important as what we communicate. Central to its mission is facilitating constructive and productive communication between experts and non-experts, between clients and providers, between communities, and between community members and decision makers.
Collaboration for Environment, Health and Safety
Website: http://www.jmu.edu/cehs/
The Center for Environment, Health & Safety (CEH&S) was created to acknowledge and facilitate the many industrial environmental and occupational safety and health management endeavors with which JMU faculty, staff and students are involved. CEH&S serves as a conduit to the faculty involved and/or interested in environment, health, and safety functions and projects. It is hoped that this presence will allow the university to better serve the industrial community while providing practical experience for students and faculty. CEH&S is administratively located in the College of Integrated Science and Technology, while its function is university wide.

Institute for Energy and Environmental Research
Website: http://www.jmu.edu/ieer/index.shtml
The Institute for Energy and Environmental Research (IEES) builds on JMU's recognized leadership in the Commonwealth of Virginia for developing and implementing innovative alternative energy solutions and applied environmental research programs. In addition to working with faculty, staff and students at JMU, the Institute for Energy and Environmental Sustainability, housed within the Office of the Vice Provost for Research and Public Service, facilitates strategic alliances with external partners to advance the university's research and service projects.

Initiatives within IEES include Valley 25x'25, Virginia Wind Energy Collaborative and the Virginia Coastal Energy Research Consortium. JMU is also home to the Alternative Fuel Vehicle Lab, which provides opportunities for students to convert and adapt vehicles to operate on renewable fuels.

JMU Farm
Dr. Carole Nash, Faculty Sponsor
Phone: (540) 568-6805
Email: nashcl@jmu.edu
The JMU farm, located in Port Republic, consists of 12 hectares (30 acres) of second growth forest, 300 meters (1000 feet) of frontage on the North River (just upstream of the formation of the Shenandoah River) and an historic brick house. This facility is intended to:
- provide an ideal space in which to disseminate environmental information to school students and community groups.
- support on-going JMU student projects involving air quality, surface and ground water quality, and alternative energy systems.
- provide an inviting off-campus venue for workshops, meetings and symposia.

The facility can be reserved for JMU-related events by contacting the Office of Academic Resources at (540) 568-3744.

Madison EcoCommunity
Website: http://www.jmu.edu/environment/ecocommunity.shtml
The Madison EcoCommunity is a residential learning community designed for 20 first year students who want to explore environmental issues and how to live more sustainably on the planet. Students in the community live in the same residence hall (Hoffman), take several classes together, develop outdoor skills through weekend nature and recreational activities, and participate in community projects and field trips. All majors, including undecided students, are welcome.

Research and Outreach Programs
Alternative Fuels Program
Website: http://www.cisat.jmu.edu/biodiesel/
Office of Environmental Stewardship and Sustainability
http://www.jmu.edu/stewardship/
Shenandoah Pure Water Forum
Website: http://www.purewaterforum.org
Virginia Wind Energy Collaborative
Website: http://vwec.cisat.jmu.edu/

Student Organizations
Earth Club
Website: http://orgs.jmu.edu/jmuearth/

Environmental Business Club
Email: jmuebc@gmail.com

Environmental Management Club
Website: http://www.jmu.edu/awma/

Geography Club
Website: http://info.jmu.edu/oms/orgsite.php?orgid=95

Geology Club
Website: http://www.jmu.edu/geology/orgs/geoclub.html

Sigma Gamma Epsilon
Website: http://www.jmu.edu/geology/sge.shtml

Society of Automotive Engineers