

ADVANCED SCHOLARS

UNIVERSITY OF NEBRASKA-LINCOLN

EARTH'S NATURAL RESOURCES SYSTEMS (NRES 108)

3 Credits (Available Fall Semesters Only)

Faculty

DAVID GOSSELIN, PH.D.
Associate Director, Natural Resources

David Gosselin's career has given him the opportunity to be involved in a wide-range of activities: working with lunar materials and meteorites, igneous and metamorphic rocks, remote sensing, ground water chemistry, and Earth science education. Dr. Gosselin strives to foster an appreciation for science in his students, and hopes all students can grow to enjoy learning about science. Originally from Minnesota, where he graduated from the University of St. Thomas with a B.A. in Geology, Dr. Gosselin earned his Ph.D. in Geology from the South Dakota School of Mines and Technology. Outside the classroom, he has a passion for soccer coaching and has coached at the youth, high school and college levels.

Course Description

This course emphasizes earth, water and soil resources in the context of the movement of matter and energy through complex reservoirs over different scales of space and time. Students will develop an understanding of the Earth's natural resource systems, and begin making connections between a variety of disciplines and concepts. NRES 108 uses a systems approach to understanding natural resource systems which recognize that everything is connected to everything else. Using this approach, students learn that natural resources are considered part of a larger system, allowing us to deal more responsibly and rationally with local, regional and global issues. This approach recognizes that humans are dependent on, impact the distribution of, and influence natural resource systems. Students will acquire an appreciation of the dependence of all people on both renewable and non-renewable resources, and the potential consequences that human activities have on the availability of natural resources. The instructor will provide challenging opportunities to learn about the Earth, allowing you to understand and apply basic Earth system science concepts to your own community.

Course Objectives

1. Describe/explain the basic interactions between the hydrosphere, geosphere, atmosphere, and biosphere
2. Acknowledge and work with individuals who have different perspectives about natural resources
3. Develop conceptual models for a variety of Earth's natural resource systems
4. Demonstrate an understanding of the properties, occurrence and distribution of water and soils; demonstrate an understanding of rocks and minerals as fundamental resources
5. Explain basic chemical and physical processes that control the distribution of natural resources; explain social and economic issues that control the availability of mineral and energy resources
6. Understand the dependence of all people on renewable and non-renewable resources; describe the impact of humans as stewards, managers and components of natural resources systems

Course Components

- Online group discussions
- Written assignments

Technology Requirements

Access to Internet required, high speed internet recommended.

Ability to handle multimedia presentations, i.e. Flash, Acrobat Reader, Real Player (free plug-ins are available)

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