

## DEPARTMENT OF EARTH AND PLANETARY SCIENCES

Add new primary cross listed course:

GEOL 443 – Sustainable Cities and Landscapes

3 Credit Hours

We examine the ecology of urban systems. Starting with an overview of basic ecological principles, we study how the emergence of cities has impacted natural systems and how this impact has accelerated. We focus on solutions, most notably the various ways that cities can be designed to reduce human impacts. The ultimate goal is to design cities to meet human needs while reducing the human footprint by increasing ecological functions.

(Same as Geography 443.)

Add new courses:

GEOL 464 – Water Sustainability and Climate

3 Credit Hours

A survey of regional and global water challenges from a geochemical perspective related to surface and groundwater contamination and sustainability, and how ancient civilizations and current human activities have affected water quality in different environmental settings and what kind of techniques and strategies can be applied to water protection, remediation and sustaining clean water for future generations. The influence of global warming and human impact on water quality and sustainability will be discussed using case studies from Appalachia, American Southwest and coastal aquifers.

Recommended Background: Two courses in geology and environmental studies.

GEOL 480 – Careers in the Natural Sciences

1 Credit Hour

An introduction to career options in the natural sciences that helps students with developing career planning and job search skills. Topics covered include resume preparation, graduate school applications, interview skills, ethics in the workplace and utilization of social media for job searches.

Recommended Background: Sophomore or above majoring in Natural Sciences.

GEOL 495 – Selected Topics in Geology

1 Credit Hour

Presentation of research by faculty and visiting scientists.

Grading Restriction: Satisfactory/No Credit grading only.

Repeatability: May be repeated. Maximum 2 hours.

Recommended Background: 12 hours of upper division coursework in Geology and Environmental Studies.

GEOL 564 – Water Sustainability and Climate

3 Credit Hours

A survey of regional and global water challenges related to water pollution and sustainability of water resources, how ancient civilizations and current human activities have affected water quality in different environmental settings and what kind of techniques and strategies can be applied to water protection, remediation and sustaining clean water resources for future generations. The influence of global warming and human impact on water quality and resources will be discussed using case studies. Recommended Background: Two courses in geology and environmental studies.

Revise course title:

GEOL 596 – Scientific Presentations (1 credit hour)

Formerly:

GEOL 596 – Geology Colloquium