

# GEOGRAPHY/ ENVIRONMENTAL STUDIES (GES)

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## GES 525 - Introduction to Geographic Information Systems

Students will be introduced to data collection through global positioning technology and remote sensing, data management and analysis through Geographic Information systems, and data visualization through a range of platforms. Graduate students will produce a professional portfolio and databases that highlight techniques used in the class. Includes lab.

Credits: 3

Term(s) Typically Offered: Offered as Needed

Enrollment limited to students with a semester level of Graduate or Post Baccalaureate.

## GES 590 - Experimental

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment limited to students with a semester level of Graduate.

## GES 595 - Workshop

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-6

Term(s) Typically Offered: Offered as Needed

Enrollment limited to students with a semester level of Graduate or Post Baccalaureate.

## GES 598 - Selected Topics

A Selected Topics course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment limited to students with a semester level of Graduate or Post Baccalaureate.

## GES 602 - Principles of Sustainability

This course explores the history of the sustainability movement, and the current and emerging science and practices of sustainability. Students will also be introduced to the research tools and methods needed to evaluate the sustainability of energy systems, technology, the built environment, and environmental regulations and policy.

Credits: 3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

## GES 616 - Planning for Sustainable Communities

This course focuses on the concept of planning for more sustainable and livable communities. Students will examine the emerging planning tools for creating more livable, equitable, and ecological communities.

Prerequisite: GES 602<sup>C</sup>

<sup>C</sup> Requires minimum grade of C.

Credits: 3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

## GES 625 - Environmental GISci

This course provides a theoretical and practical exploration of the applications of Geographic Information Systems, Remote Sensing and geospatial statistics to environmental issues. Students will become familiar with approaches to modeling fragmentation, flow analysis, site selection and allocation, viewshed analysis, and geostatistics. Students will also be required to produce project design and implementation plans including workload budgets, cost estimates and data acquisition.

Prerequisites: GES 602<sup>C</sup> and (GES 325<sup>D</sup> or GES 525<sup>C</sup>)

<sup>C</sup> Requires minimum grade of C.

<sup>D</sup> Requires minimum grade of D.

Credits: 3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

## GES 638 - Green Building Design

Students will examine methods by architects and contractors to design and construct sustainable buildings that consume less fossil fuel, limit environmental impacts and improve worker health and productivity. This course will also explore the opportunities within local, state, and federal government to encourage sustainable building design.

Prerequisite: GES 602<sup>C</sup>

<sup>C</sup> Requires minimum grade of C.

Credits: 3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

## GES 650 - Water, Climate, and Sustainability

This course examines how freshwater resources and climate influence our ability to live sustainably. Case studies of past and predicted scenarios will be studied through lectures, discussions, and student projects as we explore the connection between the environment and sustainability.

Prerequisite: GES 602<sup>C</sup>

<sup>C</sup> Requires minimum grade of C.

Credits: 3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

## GES 690 - Experimental

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

**GES 695 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-6

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

**GES 698 - Selected Topics**

A Selected Topics course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

**GES 700 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor. Prerequisites: 3.00 major and cumulative GPAs and permission of the department and Dean of the College in which the study will be conducted.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

**GES 750 - Internship**

Individually designed internship intended to provide the student with an opportunity to work on a sustainability project within the community.

Credits: 1-9

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

**GES 790 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment limited to students with a semester level of Graduate.

**GES 795 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-6

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.

**GES 798 - Selected Topics**

A Selected Topics course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

Term(s) Typically Offered: Offered as Needed

Enrollment is limited to Graduate level students.