

UWUCC Proposal # 12-829.

Senate Action Date: App-3/26/13

UWUCC Action-Date: AP-3/5/13

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Proposing Department/Unit Community & Regional Planning

# GEOG 445/545 Energy Development and Compliance II

## Syllabus of Record

### I. Catalog Description

Catalog Description  
GEOG 445/545 Energy Development and Compliance II

3 class hours  
0 lab hours  
3 credits  
(3c-01-3cr)

Prerequisites: GEOG 316; GEOG 335; GEOG 444; Or permission of instructor.

Reviews and characterizes the spatial representation and analysis techniques used by public, private, and non-profit entities engaged in the energy industries. Focuses in particular on the

III. Detailed Course Outline

Topic

Review syllabus / Introduction to energy development, exploration and compliance (3 hours)

Review of spatial approaches to energy exploration, compliance, logistics, analysis, and management

Energy Spatial Applications Typology/ Unit/Lease Analyses; Landman Applications; Site Mapping/ Base Mapping; Production Analyses; Geodatabase Structures and Data Management Issues (3 hours)

Energy Spatial Applications Typology/ Unit/Lease Analyses; Landman Applications; Site Mapping/ Base Mapping; Production Analyses; Geodatabase Structures and Data Management Issues (3 hours)

Exam 1 (1 hour); Spatial Application: Unit/Lease Analysis – Existing Lease Analysis; Geologic Analysis (2 hours)

Spatial Application Implementation: Unit/Lease Analysis – Integrating Seismic and Production Data (2

hours)

V. **Example Grading Scale.**

- A = 90% - 100%
- B = 80% - 89%
- C = 70% - 79%
- D = 60% - 69%\*
- F = below 60%

\* For graduate students there will be no D grades assigned; if a student's percentage is below 70%, they will receive an F grade.

VI. **Undergraduate Course Attendance Policy**

The university encourages course attendance. The instructor of this course will develop a policy consistent with the IUP attendance policy.

VII. **Required Textbook(s), Supplemental Books and Readings**

**Required Texts:** American Association of Professional Landmen *Oil and Gas Land*. AAPL.

Eccleston, C. H. *NEPA and Environmental Planning*. CRC Press. 2008. Boca Raton.

Energy Institute, University of Texas-Austin. *Fact-Based Regulation for Environmental*

The General Assembly of Pennsylvania. House Bill No. 1950 "Amending Title 58 (Oil and Gas) of the Pennsylvania Consolidated Statutes (Act 13 of 2012)." February 14, 2012.

Francis, Inc. 2009. New York.

ESRI Press. 2011. Redlands, CA

Thomas, C., Parr, B., and B. Hinthorne. *Measuring Up: The Business Case for GIS, Volume 2*. ESRI Press. 2012. Redlands, CA.

Westman, W. E. *Ecology, Impact Assessment and Environmental Planning*. Wiley. 1985. New York.

## Course Analysis Questionnaire

### Section A: Details of the Course

11. How does this course fit into the programs of the department? For what students is

*GIS for Sustainable Development; Harvard University, Engineering Sciences 103 Spatial Analysis of Environmental and Social Systems; Pennsylvania State University, GEOG 469 Energy Industry Applications of GIS.*

**A7** Is the content, or are the skills, of the proposed course recommended or required by a professional society, accrediting authority, law or other external agency? If so,

No.

**Section B: Interdisciplinary Implications**

**B1** Will this course be taught by instructors from more than one department? If so, explain the teaching plan, its rationale, and how the team will adhere to the syllabus of record.

*This course will not be taught by instructors from more than one department.*

**B2** What is the relationship between the content of this course and the content of courses offered by other departments? Summarize your discussions (with other departments) concerning the proposed changes and indicate how any conflicts

- \*Laboratory Supplies and other Consumable Goods - *Adequate*
- \*Library Materials - *Adequate*
- \*Travel Funds - *Adequate*

**C3** Are any of the resources for this course funded by a grant? If so, what provisions have been made to continue support for this course once the grant has expired?

*No resources for this course are funded by a grant.*

**C4** How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to certain seasonal semesters?

*This course is expected to be taught once per year (every other semester).*

**C5** How many sections of this course do you anticipate offering in any single