Course information:
Copy and paste current course information from Class Search/Course Catalog.

Academic Unit: School of Geographical Science and Urban Planning

Subject: GCU  Number: 364  Title: Energy in the Global Arena

Is this a cross-listed course? (Choose one)
No

Is this a shared course? If yes, please identify course(s)
No

Course description:
Energy in the Global Arena
Production, transportation, and consumption of energy, emphasizing the electric power industry and its environmental problems.

Allow multiple enrollments: No
Repeatable for credit: No  Primary course component: Lecture
Grading method: Student Option
Offered by: College of Liberal Arts and Sciences -- School of Geographical Sciences and Urban Planning

Requested designation: (Choose One)

Note: a separate proposal is required for each designation requested

Eligibility:
Permanent numbered courses must have completed the university's review and approval process.
For the rules governing approval of omnibus courses, contact the General Studies Program Office at (480) 965-0739.

Area(s) proposed course will serve:
A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:
Complete and attach the appropriate checklist
- Literacy and Critical Inquiry core courses (L)
- Mathematics core courses (MA)
- Computer/statistics/quantitative applications core courses (CS)
- Humanities, Fine Arts and Design core courses (HU)
- Social and Behavioral Sciences core courses (SB)
- Natural Sciences core courses (SO/SG)
- Global Awareness courses (G)
- Historical Awareness courses (H)
- Cultural Diversity in the United States courses (C)

A complete proposal should include:
☐ Signed General Studies Program Course Proposal Cover Form
☐ Criteria Checklist for the area
☐ Course Syllabus
☐ Table of Contents from the textbook and list of required readings/books

Contact information:
Name: Mike Pasqualetti  Phone: 5-4548
Mail code: 5302  E-mail: pasqualetti@asu.edu

Department Chair/Director approval: (Required)
Chair/Director name (Typed): Elizabeth Wentz  Date: 2/3/14
Rev. 1/94, 4/95, 7/98, 4/00, 1/02, 10/08, 11/11/12/11, 7/12
Arizona State University Criteria Checklist for

GLOBAL AWARENESS [G]

Rationale and Objectives

Human organizations and relationships have evolved from being family and village centered to modern global interdependence. The greatest challenge in the nuclear age is developing and maintaining a global perspective which fosters international cooperation. While the modern world is comprised of politically independent states, people must transcend nationalism and recognize the significant interdependence among peoples of the world. The exposure of students to different cultural systems provides the background of thought necessary to developing a global perspective.

Cultural learning is present in many disciplines. Exposure to perspectives on art, business, engineering, music, and the natural and social sciences that lead to an understanding of the contemporary world supports the view that intercultural interaction has become a daily necessity. The complexity of American society forces people to balance regional and national goals with global concerns. Many of the most serious problems are world issues and require solutions which exhibit mutuality and reciprocity. No longer are hunger, ecology, health care delivery, language planning, information exchanges, economic and social developments, law, technology transfer, philosophy, and the arts solely national concerns; they affect all the people of the world. Survival may be dependent on the ability to generate global solutions to some of the most pressing problems.

The word university, from universitas, implies that knowledge comes from many sources and is not restricted to local, regional, or national perspectives. The Global Awareness Area recognizes the need for an understanding of the values, elements, and social processes of cultures other than the culture of the United States. Learning which recognizes the nature of others cultures and the relationship of America’s cultural system to generic human goals and welfare will help create the multicultural and global perspective necessary for effective interaction in the human community.

Courses which meet the requirement in global awareness are of one or more of the following types: (1) in-depth area studies which are concerned with an examination of culture-specific elements of a region of the world, country, or culture group, (2) the study of contemporary non-English language courses that have a significant cultural component, (3) comparative cultural studies with an emphasis on non-U.S. areas, and (4) in-depth studies of non-U.S. centered cultural interrelationships of global scope such as the global interdependence produced by problems of world ecology, multinational corporations, migration, and the threat of nuclear war.
Proposer: Please complete the following section and attach appropriate documentation.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1. Studies <strong>must</strong> be composed of subject matter that addresses or leads to an understanding of the contemporary world outside the U.S.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The course must match at least one of the following descriptions: (check all which may apply):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. In-depth area studies which are concerned with an examination of culture-specific elements of a region, country or culture group. <strong>The area or culture studied must be non-U.S. and the study must contribute to an understanding of the contemporary world.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The course is a language course for a contemporary non-English language, and has a significant cultural component.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. The course is a comparative cultural study in which most, i.e., more than half, of the material is devoted to non-U.S. areas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. The course is a study of the cultural significance of a non-U.S.-centered global issue. The course examines the role of its target issue within each culture and the interrelatedness of various global cultures on that issue. It looks at the cultural significance of its issue in various cultures outside the U.S., both examining the issue’s place within each culture and the effects of that issue on world cultures.&quot;</td>
</tr>
</tbody>
</table>
Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>How course meets spirit</th>
<th>Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE: 2d: study the cultural significance of a non-U.S. centered global issue</td>
<td><strong>SAMPLE:</strong> The course examines the cultural significance of financial markets Japan, Korea, and the UK.</td>
<td><strong>SAMPLE:</strong> Module 2 shows how Japanese literature has shaped how Japanese people understand world markets. Module 3 shows how Japanese popular culture has been changed by the world financial market system. Modules 4 &amp; 5 do the same for Korea and modules 6 &amp; 7 do the same for the UK.</td>
</tr>
<tr>
<td>1. Contemporary world outside the U.S. --</td>
<td>This course emphasize the global patterns of energy resource use and development, patterns that depend on differences in culture, economics, values, location, politics, and history.</td>
<td>We examine the entire globe, comparing energy use, development and impacts among all these countries. The US is one of them, but is a small part of all the discussions</td>
</tr>
<tr>
<td>2a. In-depth area studies.</td>
<td>We discuss area geographies of all the areas of the world, almost entirely outside the U.S.</td>
<td>For example, we examine China in terms of topography, population distribution, infrastructure, economic activities, aspirations, relationships with its bordering countries, all with energy as the central focus. Same is done for other countries</td>
</tr>
<tr>
<td>2c. Comparative culture study 2d. Non-US centered issue</td>
<td>Cultural differences influence energy choices, development, values, uses. Energy is a global issue, with most of the action taking place outside the US</td>
<td>Africa is a good example. Most of sub-Saharan Africa suffers from insufficient and absent access to electricity, and the people there are increasingly acquiring distributed solar energy devices. This has been allowing a move from conditions of energy poverty to conditions more favorable economic growth. Culture, habits, values, and many other factors interfere and enhance this transition. Nigeria is one place all this is happening.</td>
</tr>
</tbody>
</table>
INTRODUCTION

Energy is the most important natural resource. The location, processing, distribution, use and impacts of all energy resources are of strong professional interest to geographers, and geographers are employed in all phases of energy supply and demand.

While location of supply and demand is important, geographers are also involved in the spatial analysis of locating hazardous or obnoxious facilities, the sources and dispersal of pollution, land use conflicts from energy development, and the movements of people in response to energy influences.

*Energy in the Global Arena* examines all the principal energy resources, with particular attention to the interplay of geopolitics, environment, and economics in meeting energy demands around the world.
INTERNET

The internet will be used extensively for a variety of course materials and assignments. You can access the internet materials on BlackBoard. You are responsible for what is on that site.

EVALUATION

- Class attendance is essential and participation is expected.
- Grades will be based on a 400 point minimum
  - Two 100 point tests (some questions from these exams will also appear on the final)
  - Cumulative 200-point final
- There are very strict policies in place prohibiting make-up tests
- Tests will be based on lecture, readings, assignments, maps and power point presentations, and reviews
- Tests are scored on a point-only basis, with no letter grades given until the final grade. Plus and minus grades will be given.

Academic honesty – Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see http://provost.asu.edu/academicintegrity.

Special note on plagiarism: If you submit work that is not your own, you will be fully disciplined in accordance with university policies. Plagiarism or cheating in any form will not be tolerated. It is your responsibility to be aware of, understand, and adhere to the rules and regulations of Arizona State University. In the “Student Academic Integrity Policy” manual, ASU defines “Plagiarism” [as] using another's words, ideas, materials or work without properly acknowledging and documenting the source. Students are responsible for knowing the rules governing the use of another's work or materials and for acknowledging and documenting the source appropriately.” Academic dishonesty, including inappropriate collaboration, will not be tolerated. There are severe sanctions for cheating, plagiarizing and any other form of dishonesty. For further details, please consult http://provost.asu.edu/academicintegrity
Required Books

Energy
Author: Goldemberg
ISBN: 978098812929
Price New: $16.95
Price Used: $12.75

Memories of a Meltdown
Author: Makuzangi
ISBN: 9789774162619
Price New: $16.95
Price Used: $12.00

Global Energy Dilemmas
Author: Brashaw
ISBN: 978076550654
Price New: $26.95
Price Used: $20.25
Rental Use Price: $13.46

Crude World
Author: Maass
ISBN: 9781400075454
Price New: $15.95
Price Used: $9.60
Rental Used Price: $7.97

Supporting (optional) Books

Points of the Global Oil Industry
Author: Fabiola
ISBN: 97801331845
Price New: $25.00
Price Used: $18.75
Rental used Price: $12.48

Untapped
Author: Ghoshman
ISBN: 97815593721
Price New: $20.95
Price Used: $12.50
Rental used Price: $10.48

New Great Game: Blood & Oil in Central Asia
Author: Lutz Kleven
ISBN: 978092141729
Price New: $15.00
Price Used: $11.25

Petrostate
Author: Goldman
ISBN: 978095640736
Price New: $74.00
Price Used: $55.50

Renewable Revolution
Author: Kamal
ISBN: 9781844711981
Price New: $35.95
Price Used: $27.00
Rental Used Price: $17.96
Color – coding of criteria to syllabus. **Multiple colors signifies overlapping criteria**

1. Contemporary World Outside the US
2. In-depth area studies to understand the contemporary world
3. Comparative cultural study, mostly non-US
4. Cultural significance on non-US issue

**Topics and Readings**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
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</tr>
<tr>
<td>14</td>
<td>The geography of energy</td>
<td>Pasqualetti - <em>The Geography of Energy and the Wealth of the World</em> – on BlackBoard</td>
</tr>
<tr>
<td>16</td>
<td>Eco-City: Freiburg-City of the Future</td>
<td>Visiting expert: Bjoern Hagan, Assistant Research Professor, School of Geographical Sciences and Urban Planning</td>
</tr>
<tr>
<td>21</td>
<td>The history of energy</td>
<td>Lecture and power point</td>
</tr>
<tr>
<td>23</td>
<td>Energy and geopolitics</td>
<td>Lecture and power point</td>
</tr>
<tr>
<td></td>
<td>Bradshaw - <em>Global Energy Dilemmas</em> (This is intended to introduce you to global energy relationships. Refer back to it throughout the semester to supplement class presentations.)</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Global patterns of energy supply &amp; demand</td>
<td>Lecture and power point</td>
</tr>
<tr>
<td>30</td>
<td>Electricity generation and distribution</td>
<td>Lecture and power point</td>
</tr>
<tr>
<td></td>
<td>Goldemberg – <em>Energy: what everyone needs to know</em> (This book is intended to be your principal reference on energy; refer to it throughout the semester to supplement class presentations.)</td>
<td></td>
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</tbody>
</table>

**February**
<table>
<thead>
<tr>
<th>Page</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Coal and its legacy</td>
<td>Lecture and power point</td>
</tr>
<tr>
<td>6</td>
<td><strong>FIRST EXAMINATION</strong></td>
<td></td>
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</tbody>
</table>
| 11   | Oil in world trade | Lecture and power point  
Maass – *Crude World: The Violent Twilight of Oil*. (Read as much as necessary to understand his principal arguments.) |
| 13   | Oil (continued) | Lecture and power point  
Falola (optional) |
| 18   | Natural gas: fracking and a new abundance | Lecture and power point |
| 20   | **ENERGY REGIONS OF THE WORLD** | |
| 20   | The Middle East: oil and instability | Lecture and power point |
| 25   | Russia and the Caspian Basin: big reserves and big politics | Lecture and power point  
Goldman (optional)  
Kleveman (optional) |
| 27   | China: supply, demand, and international implications | Lecture and power point |
| March | | |
| 4    | Africa: poverty, war, and the resource curse | Lecture and power point  
Ghazvinian (optional) |
| 6    | **SECOND EXAMINATION** | |
| 18   | South America: an emerging player in our hemisphere | Lecture and power point |
| 20   | The North Sea: wealth, decline and possible consequences | Lecture and power point |
| 25 | **The Arctic Basin:** resource-rich and contentious | Lecture and power point |
| 27 | **North America:** the developing alliance | Lecture and power point |
| | | Pasqualetti – *The Alberta Oil Sands from Both Sides of the Border* – on BlackBoard |

### NUCLEAR POWER

#### April

| 1 | **Nuclear power:** how it works and where it is | Lecture and power point |
| 3 | **Nuclear power accidents and influence** | Lecture and power point |
| | | Makhzangi – *Memories of a Meltdown* |
| | | Pasqualetti – *Landscape Permanence and Nuclear Warnings* |

### RENEWABLE ENERGY

<p>| 8 | <strong>Algae or efficiency</strong> | Guest lecture |
| 10 | Efficiency: big and overlooked | Jeff Barrie: “Kilowatt Ours” (video) |
| 15 | <strong>Hydropower:</strong> promise and shortcomings | Lecture and power point |
| 17 | <strong>Wind:</strong> quick growth and continued public push-back | Lecture and power point |
| | | Pasqualetti – <em>Wind Power Challenges and Opportunities</em> on BlackBoard |
| 22 | Geothermal energy: where it is and how it can contribute? | Lecture and power point |
| 24 | <strong>Solar energy:</strong> the ultimate prize? | Lecture and power point |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Solar energy policy</td>
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<td></td>
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<tr>
<td><strong>May</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Environmental costs and energy decisions</td>
<td>Lecture and power point</td>
</tr>
<tr>
<td>6</td>
<td>Review</td>
<td>Lecture</td>
</tr>
<tr>
<td>8</td>
<td>FINAL EXAMINATION  7:30 - 9:20 AM (in SCOB 150)</td>
<td></td>
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</tbody>
</table>
For the GS Committee regarding readings. For the texts, I allow them to read them at their own pace, as applicable to the topics being considered. I do not assign particular pages and I do not test for specific knowledge from these books. They are to read the entire book over the course of the semester to reinforce what I say in class. When specific readings are assigned, they are in the form of articles on BlackBoard. As for the recommended readings, they are identified in the syllabus as particularly pertinent to the topics being covered. I do that as a service to the students. I do not test for these books.
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3 **Sustaining Affluence: Energy Dilemmas in High-Energy Societies**  
4 **Legacies and Liberalization: Energy Dilemmas in the Post-Socialist States**  
5 **Fueling Growth: Energy Dilemmas in the Emerging Economies**  
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An Egyptian between Moscow and Chernobyl

Translated by Samah Selim

The American University in Cairo Press
Cairo New York
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THE VIOLENT TWILIGHT OF OIL
PETER MAASS

"Damning... The narrative argument that brings these stories together is persuasive, intelligent, and passionate."
- The Christian Science Monitor
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