

LSC Use Only Proposal No:
LSC Action-Date: AP-3/29/12

UWUCC Use Only Proposal No: 11-136a
UWUCC Action-Date: AP-4/2/12

Senate Action Date: App-5/01/12

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

| | |
|---|--|
| Contact Person(s) John Benhart, Jr. | Email Address jbenhart@iup.edu |
| Proposing Department/Unit Geography & Regional Planning | Phone 724.357.2250 |

Check all appropriate lines and complete all information. Use a separate cover sheet for each course proposal and/or program proposal.

1. Course Proposals (check all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> New Course | <input type="checkbox"/> Course Prefix Change | <input type="checkbox"/> Course Deletion |
| <input checked="" type="checkbox"/> Course Revision | <input checked="" type="checkbox"/> Course Number and/or <u>Title Change</u> | <input checked="" type="checkbox"/> Catalog Description Change |

Current course prefix, number and full title: **GEOG 101 Introduction to Geography: Human Environment**

Proposed course prefix, number and full title, if changing: **GEOG 101 Geography of Human Environment Interaction**

2. Liberal Studies Course Designations, as appropriate

This course is also proposed as a Liberal Studies Course (please mark the appropriate categories below)

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Learning Skills | <input checked="" type="checkbox"/> Knowledge Area | <input type="checkbox"/> Global and Multicultural Awareness | <input type="checkbox"/> Writing Across the Curriculum (W Course) |
| <input type="checkbox"/> Liberal Studies Elective (please mark the designation(s) that applies – must meet at least one) | | | |
| <input type="checkbox"/> Global Citizenship | <input type="checkbox"/> Information Literacy | <input type="checkbox"/> Oral Communication | |
| <input type="checkbox"/> Quantitative Reasoning | <input type="checkbox"/> Scientific Literacy | <input type="checkbox"/> Technological Literacy | |

3. Other Designations, as appropriate



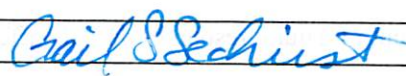
- | | |
|--|---|
| <input type="checkbox"/> Honors College Course | <input type="checkbox"/> Other: (e.g. Women's Studies, Pan African) |
|--|---|

4. Program Proposals

- | | | | |
|---|--|--|------------------------------------|
| <input type="checkbox"/> Catalog Description Change | <input type="checkbox"/> Program Revision | <input type="checkbox"/> Program Title Change | <input type="checkbox"/> New Track |
| <input type="checkbox"/> New Degree Program | <input type="checkbox"/> New Minor Program | <input type="checkbox"/> Liberal Studies Requirement Changes | <input type="checkbox"/> Other |

Current program name: _____

Proposed program name, if changing: _____

| 5. Approvals | Signature | Date |
|--|--|---------|
| Department Curriculum Committee Chair(s) |  | 2/17/12 |
| Department Chairperson(s) |  | 2/19/12 |
| College Curriculum Committee Chair |  | 3/7/12 |
| College Dean |  | 3/23/12 |
| Director of Liberal Studies (as needed) |  | 4/23/12 |
| Director of Honors College (as needed) | | |
| Provost (as needed) | | |
| Additional signature (with title) as appropriate | | |
| UWUCC Co-Chairs |  | 4/25/12 |

Received

APR 25 2012

Liberal Studies

Received

APR 23 2012

Liberal Studies

Received

APR 13 2012

Liberal Studies

Received

MAR 26 2012

Liberal Studies

**GEOG 101 Geography of Human Environment Interaction
New Syllabus of Record**

I. Catalog Description:

GEOG 101 Geography of Human Environment Interaction

3 class hours

0 lab hours

Prerequisites: None

3 credits

(3c-01-3cr)

The physical environment is modified by human activities, largely as a consequence of the ways in which societies value and use Earth's natural resources, but human activities and distributions are, in turn, influenced by Earth's physical features and processes. These themes are addressed by examining the geography of environmental impacts such as tropical deforestation, global climate change, energy development, urban growth, and agricultural land use. Also considered are natural hazards such as hurricanes, earthquakes, volcanic eruptions, and flooding.

II. Course Outcomes:

Upon completing this course students will be able to:

Objective 1. Define the geographer's perspective by exploring the interactions between human activities and physical systems.

Expected Liberal Studies Learning Outcomes 1 and 2

Informed and Empowered Learners

Rationale

Assignments will assess how students think about the two way interactions between physical environment and human populations. They will also engage students in examining the complexities of causation with respect to human activities and environmental impacts.

Objective 2. Describe the physical processes that shape the patterns on Earth's surface.

Expected Liberal Studies Learning Outcomes 1

Informed Learners

Rationale

Assignments and exams will require students to demonstrate knowledge of important earth physical processes and resultant geographic patterns.

Objective 3. Understand how the use and development of natural resources directly affects them.

Expected Liberal Studies Learning Outcomes 1, 2 and 3

Informed, Empowered and Responsible Learners

Rationale

Assignments and exams will require students to demonstrate knowledge of economic development and resource use on global, regional and national scales. They will also engage students in examining the complexities of causation with respect to human activities and environmental impacts.

Objective 4. Use maps and other geographic representations and tools to acquire, process, analyze, and report information from a geographic perspective.

Expected Liberal Studies Learning Outcomes 1 and 2 Informed and Empowered Learners

Rationale

Assignments will require students to read and produce maps to articulate spatial patterns.

III. Course Outline:

- I. Introduction to Geographic Concepts and Representation (3 hours)
 - A. Nature of Geography as a Discipline
 - B. Describing Physical and Human Patterns Across Space
 - C. Design Choices in Presenting Spatial Information on Maps

- II. Physiography (4 hours)
 - A. Earth Processes
 - B. Tectonic, Erosional, and Depositional Landforms
 - C. Human Responses to Natural Hazards

- III. Water, Atmosphere, and Climate (6 hours)
 - A. Earth-Sun Relationships
 - B. The Hydrologic Cycle
 - C. Local and Regional Patterns of Precipitation
 - D. Climate Change

- EXAM 1 (1 hour)**

- IV. Use and Management of Water Resources (3 hours)
 - A. Regional Disparities
 - B. Development and Conservation

- V. Patterns of Population and Urbanization (7 hours)
 - A. Population Measures
 - B. Demographic Transition
 - C. The Spatial Organization of Cities
 - D. Implications of Sprawl Development

- VI. Agriculture (4 hours)
 - A. Agricultural Systems

- B. Distribution of Soil Resources
- C. Land and Water Degradation

EXAM 2 **(1 hour)**

VII. Natural Resources and Rural Communities **(8 hours)**

- A. Functions and Distribution of Forest Resources
- B. Public Lands Management
- C. Forestry Practices
- D. Distribution of Mineral Resources and Extractive Approaches
- E. Socioeconomic Impacts of Resource Booms
- F. Recreational Development

VIII. Energy **(5 hours)**

- A. Spatial and Temporal Patterns of Renewable and Nonrenewable Energy
- B. Evolving Approaches to Fossil Fuel Development
- C. Air Quality Impacts of Fossil Fuels
- D. Issues in Nuclear Energy and Waste Disposal
- E. Social and Environmental Impacts of Hydroelectric Dams
- F. Strengths and Weaknesses of Wind and Solar Energy

Final Exam **(2 hours)**

IV. Evaluation Methods:

The final grade will be determined as follows:

| | |
|--|-------------------|
| Two exams during the semester at 100 points each | 200 points |
| Essay or Quiz on Supplemental Reading | 60 points |
| Class Exercises | 120 points |
| Final Exam | <u>120 points</u> |
| | 500 points |

V. Grading Scale:

A: 90% or above (450 pts. or above) B: 80-89% (400 to 449 pts.) C: 70-79% (350 to 399 pts.) D: 60-69% (300 to 349 pts.) F: less than 60% (less than 300 pts.)

VI. Attendance Policy

Individual faculty members will develop their own policy in compliance with the university attendance policy as outlined in the undergraduate catalog.

VII. Required Textbook and Supplemental Books

An atlas may be required at the discretion of the faculty. For example:

Allen, J.L., and C.J. Sutton. *Student Atlas of World Geography*. 6th ed. Boston, MA: McGraw-Hill, 2010.

The following are recent textbooks any of which are applicable for this course:

Getis, A., Getis, J., and J. Fellman. *Introduction to Geography*. 12th ed. Boston, MA: McGraw-Hill, 2009.

Goudie, Andrew S. *The Human Impact on the Natural Environment: Past, Present, and Future*, 6th ed. Malden, MA: Wiley-Blackwell, 2006.

Goudie, Andrew S. and Heather Viles. *The Earth Transformed: An Introduction to Human Impacts on the Environment*. Malden, MA: Wiley-Blackwell, 2003.

Miller G. Tyler and Scott E. Spoolman, *Living in the Environment: Principles, Connections, and Solutions*, 17th ed. Belmont, CA: Brooks-Cole, 2011.

Wright, Richard T. and Dorothy F. Boorse. *Environmental Science: Toward a Sustainable Future*, 11th ed., Upper Saddle River, NJ: Pearson/Prentice-Hall, 2011.

Possible Titles to Serve as Supplemental books:

Bryson, Reid A. and Thomas J. Murray. *Climates of Hunger*, Madison: The University of Wisconsin Press, 1977. [A classic historical work about the impacts of climate on humans.]

Casey, Susan, *The Wave: In Pursuit of the Rogues, Freaks and Giants of the Oceans*, New York: Doubleday, 2010.

Flannery, Tim. *The Weather Makers*, New York: Grove Press, 2005.

Larson, Erik. *Isaac's Storm*, New York: Vintage Books, 2000. [The physical and human events surrounding the worst natural disaster in United States history, the 1900 hurricane that destroyed Galveston, Texas.]

Mann, Michael and Lee R. Kump. *Dire Predictions: Understanding Global Warming*, New York: Prentice-Hall, 2009.

Seidl, Amy. *Early Spring: An Ecologist and Her Children Wake to a Warming World*, Boston: Beacon Press, 2009.

Bibliography

Brown, Lester R. *World on the Edge: How to Prevent Environmental and Economic Collapse*, New York: W. W. Norton & Company, 2011.

Bush, Mark B. *Ecology of a Changing Planet*, Upper Saddle River, NJ: Prentice-Hall, 2003.

Coch, Nicholas K. *Geohazards: Natural and Human*, Englewood Cliffs, NJ: Prentice-Hall, 1995.

- Global Change and the Human Prospect: Issues in Population, Science, Technology and Equity*. Sigma Xi Forum Proceedings, November 16-18, 1991, Research Triangle Park, NC: Sigma Xi, The Scientific Research Society, 1992.
- Haggett, Peter. *Geography: A Global Synthesis*, New York: Prentice-Hall, 2001.
- Harper, Charles R. *Environment and Society: Human Perspectives on Environmental Issues*, New Jersey: Upper Saddle River, 2001.
- Hyndman, Donald and David Hyndman, *Natural Hazards and Disasters*, 3rd ed., Cengage Learning, 2011.
- Johnston, R. J., Peter J. Taylor, and Michael J. Watts, editors, *Geographies of Global Change: Remapping the World in the Late Twentieth Century*, Cambridge, MA: Blackwell Publishers, Inc., 1996.
- Johnson, Douglas L. and Laurence A. Lewis. *Land Degradation: Creation and Destruction*, 2nd ed. New York: Rowman & Littlefield Publishers, Inc., 2007.
- Kump, Lee R., James F. Kasting, and Robert G. Crane. *The Earth System*, 2nd ed., Upper Saddle River, NJ: Pearson/Prentice-Hall, 2004.
- McConnell, Robert L. and Daniel C. Abel. *Environmental Issues: An Introduction to Sustainability*, 3rd ed. Upper Saddle River, NJ: Pearson/Prentice Hall, 2011.
- McPhee, John. *The Control of Nature*, New York: The Noonday Press, 1989.
- Miller, G. Tyler and Scott Spoolman. *Environmental Science*, 13th ed. Belmont, CA: Brooks-Cole, 2010.
- Pickering, Kevin T. and Lewis A. Owen. *An Introduction to Global Environmental Issues*, 2nd ed., New York: Routledge, 1997.

Summary of the Proposed Revisions:

- 1) Title change
- 2) Catalog description change
- 3) Revision of course objectives
- 4) Addition of other course syllabus items such as attendance policy, grading scale, and bibliography.
- 5) Updated outline of course topics

Rationale:

- 1) The reason why the course title on the old syllabus of record does not match the catalog title for GEOG 101 is that at some point (we are not sure when) the catalog editor deleted the word “Interaction.” There was never a departmental proposal for such a change. That said, the title of the course is being changed to reflect the new Liberal Studies curriculum in that it captures the emphasis of modern courses and textbooks on human-environment interaction (e.g., Goudie, A. S., *The Earth Transformed: An Introduction to Human Impacts on the Environment*).
- 2) The catalog description is being revised to reflect the updating of terminology, and changes in the focus of the course.
- 3) The objectives for this course have change markedly since the old syllabus was drafted in 1989. Today, the emphasis is on student-centered, measurable objectives, therefore, a new list of objectives has been developed for this course.
- 4) The addition of other items reflects changes in the expectations for a syllabus of record.
- 5) The course outline has been updated to include geographic topics that are of concern to students in today’s world, and which are covered in modern textbooks.

GEOG 101: Liberal Studies Approval Questions

- 1) The instructors who regularly teach GEOG 101 (Human Environment Interactions) will meet on a regular basis to discuss revisions to the course syllabus such as the inclusion of new topics (e.g., Marcellus shale gas extraction), new resources, and updated methodology.
- 2) Minority issues are discussed throughout this course. For example, tropical deforestation in Brazil's Amazon rain forest impacts the lives of native Americans ("Ameridians") as well as poor in-migrants from heavy populated coastal cities such as Sao Paulo. Similarly, Hurricane Katrina had its most devastating impact on the African American population living in the low-lying areas of New Orleans. The spatial variation in population growth and distribution among the cultural and ethnic groups of the world is also considered. Today, the fastest population growth in the world is occurring in Africa raising serious concerns about the future quality of life in areas of that continent.
- 3) This course includes a required second book. Recent examples include *Isaac's Storm* by Erik Larson, *The Control of Nature* by John McPhee, and *The Wave* by Susan Casey. A written essay is required to assess student understanding of the book content. An example of the essay requirement for *Isaac's Storm* is included in this document. The department chair is responsible for verifying this requirement when textbook orders are submitted.
- 4) The content of this course is designed to enhance student understanding of the interaction between humans and the natural environment. An understanding of these interactions are extremely important if students are to function in a modern world faced with resource depletion, global climate change, and ever present natural hazards.

Isaac's Storm Essay Instructions

- I. Your assignment.** After reading *Isaac's Storm*, write an essay that addresses each of the following items:
- A. Describe the relationship between the U.S. Army Signal Corps Weather Bureau and Cuban forecasters. How did this issue affect Galveston's preparation for a hurricane?
 - B. Describe the physical geography of Galveston that made it vulnerable to hurricanes.
 - C. What forecasting or judgment errors did Isaac Cline make that resulted in thousands of deaths?
 - D. What foolish things did the people of Galveston do during the hurricane that resulted in many deaths?
- II. Your essay should be organized as follows:**
- A. **Title page.** Include the essay title, your name, the course number, and date of submission. **Note: The title page does not count as an essay page, therefore, it isn't numbered.**
 - B. **Introduction (top of page 1).** The introduction states the purpose for writing the paper (about one paragraph in length.). One of the basic mistakes made by many writers is starting a paper without an introduction. A reader must be told what you are writing about at the beginning of your essay. Similarly, all paragraphs should begin with a topic (or thesis) sentence that describes, briefly, the contents of that paragraph.
 - C. **Body.** This section constitutes the bulk of your paper (Items A-D under I above). The manner in which you organize this section is open, but there are two general things to consider. Write in your own words, and *avoid using too many long quotations* in your essay. If you cite something specific from a chapter, use a footnote. Since no outside references are being used, a simple page number (e.g., p. 40) at the end of a sentence will do.
 - D. **Conclusion:** Summarize the main points of your review in one or two paragraphs.
- III. Other items:**
- A. **Length.** The total length of your essay should be six to seven pages, but you may exceed that limit.
 - B. **Review** what you have written for spelling, punctuation, and typographical errors (Most word processors have spelling and grammar checkers.).
 - C. **Type size.** The type size that you use should be no larger than that which appears on this page (12 point).
 - D. **Spacing.** Use double spacing between lines.
 - E. **Margins.** Use one-inch margins on the top, bottom, left and right sides of each essay page.

- F. **Number** all pages (The cover page is not numbered, so the first text page is number one.).
- G. **Staple** all pages together.
- H. If you add photographs to your essay, include them as an attachment, and list the figure numbers in your text. Also, be sure to cite the sources of the images with a bibliographic entry.
- I. **I will not accept essays sent to me via e-mail.**

IV. Grading.

Your essay will be worth 70 points, and will be graded as follows:

- A. **Detail (60 points).** Your essay will be graded on the accuracy and detail with which you address each of the items under **I** above. If you make cite a specific example, support it with an footnote.
- B. **Organization (5 points).** Your essay should be well- organized and easy to read.
- C. **Style (5 points).** This category includes spelling, punctuation and general rules of grammar.

V. Due date: *Your essay will be due on or before Dec. 6, and will be returned to you on Dec. 15 (exam 3 date). I will not accept essays sent to me as e-mail attachments. Buy your book before mid-semester, because IUP Bookstore will return unsold copies to the publisher at that time. Also, be sure to keep a copy of your essay.*

VI. A final note. This is a relatively simple assignment, which is due three months from now. Given that length of time, you should be able to do a good job on the essay. My advice is to start early, so that you have time to organize and rewrite your drafts.

GE 101 Introduction to Geography: Human Environment Interaction

Catalog Description: Introduction to Geography, 3 sh, no prerequisites. This course is designed to introduce students to the nature of geography, its intellectual challenges and unifying themes. It examines five general topics--population, agriculture, urbanization, geologic processes, and water resources. Throughout, case studies are utilized to demonstrate the application of geographic thought.

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Course Objectives: The objectives of the course are:

1. To increase student awareness and appreciation of the manner in which geographers approach current world issues.
2. To inform students of the principles and basic concepts of human geography.
3. To generate an interest in the discipline of geography that will foster a desire for further, indepth study.

Required Text: The Earth: a Physical and Human Geography, H.J. DeBlij. Published by John Wiley and Sons, 1987.

Non-textbook Required Reading: McPhee, John, The Pine Barrens, or Coming Into The Country,

Evaluation: Students' performance will be evaluated based on three in-class exams and two take-home exercises.

Exams - the three exams will comprise about 75 percent of your final grade, and will be of equal difficulty. Exams consist of a mixture of multiple choice, true-false, short answer, and essay questions. Exams will test the understanding and application of the lecture and reading material. Each exam is worth 100 points.

Take-Home Exercises - there will be two assignments to be done outside of class that are designed to illustrate some simple geographic concepts. These exercises will be worth 25 percent of your overall grade.

Grades will be based on the following scale:

90-100 = A
80- 89 = B
70- 79 = C
60- 69 = D
Below = F

Course Outline:

1. Introduction; The Discipline of Geography.

The fundamental themes of geography.

GENERAL TOPIC: Population as an Agent of Environmental Change.

2. Regional Comparisons of Population (Developed and Lesser Developed Areas)

Spatial dynamics of fertility, mortality, and migration patterns. Ethnic and sexual variations in space. Definition of population rates and measures.

READ: Human Wants and Misused Lands, Erik Eckholm. Natural History, June 1982.

3. Social and Economic Consequences of Rapid Population Growth on Major World Regions

History of world population growth. Geographic variation in the causes of the "population explosion." Impact of rapid population growth on: 1) environment and natural resources, 2) demographic structure (dependency ratio), and 3) economy.

READ: State of the Earth, Lester Brown, et.al., Natural History, April 1985.

4. Responses to Rapid Population Growth: The Malthusian Thesis and the Demographic Transition Model.

Geographic significance of the Malthusian thesis and Demographic Transition model. China's "one child" policy. Sex differences in policy application: Indira Ghandi's India. Population control as a real issue.

GENERAL TOPIC: A Spatial-temporal Approach to Understanding Agriculture as an Agent of Environmental Change.

5. Living in Harmony with the Environment: The Spatial Organization of Hunting and gathering Societies.

Regional Case Study: The Kung Bushmen of the Kalahari. Examination of the way in which this simplest form of society adjusts its spatial organization to environmental conditions. Gender difference in spatial organizations.

6. Changing the Environment to Increase the Flow of Energy to Humans: The Spatial Organization of Swidden Agriculture.

Regional Case Study: Brazil--The spatial organization of the Swidden system practiced by Amerindians.

7. Impact of Humans on the Tropical Rain Forest Ecosystems.

Regional Case Study: Zaire--eographic expansion of Swidden agriculture in the rain forests. Large-scale developments in the rain forests: logging, cattle ranching, commercial agriculture. Impact of rain forest destruction on physical geography--climate, soils, and genetic resources. Deforestation and race: genocide?

8. Human Impact on a Dryland Ecosystem
Regional Case Study: Desertification and climate change in Africa's Sahel. The concept of "carrying capacity." The impact of overpopulation of humans and animals in specific geographic settings.
9. Subsistence Agricultural Systems.
The spatial organization of subsistence agriculture. Sexual roles and activity space.
Regional Case Study: India.
10. Geography of the Green Revolution: Promises and Problems. Spatial Diffusion of green revolution technology.
Regional Case Study; Punjab State, India. Benefits of the green revolution to developing nations. Monocultures and the erosion of genetic diversity.
READ: The Green Revolution, Robert Huke, Journal of Geography, November/December, 1985.
11. Agribusiness and Environmental Problems in the More Developed Countries
Regional Case Study: United States. The nature of "agribusiness." problems of water use, chemical pollution, and soil erosion.
12. Ecological Impact of Irrigation Systems
Regional Case Study: The Aswan High Dam of Egypt. Problems associated with the construction of the Aswan High Dam.
GENERAL TOPIC: The Impact of Urbanization on the Physical Environment.
13. The Spatial Organization of Cities.
Distribution of land uses within urban areas. Growth and spread of U.S. cities. The geography of suburbia and the "urban village." The ghetto: space and social control.
READ: Colossal Cities of the future, Edward Cornish, The futurist, September/october 1986.
14. Urban Impact on Climate.
Urban-rural variations in temperature. The "urban heat island." Pollution sources and types. Temperature inversions.

16. The Geography of Acid Rain.

Causes of acid rain. Location of acid rain in North America and Europe. Spatial diffusion of acid rain. Impact on aquatic and forest ecosystems. Proposed solutions to the problem--a comparison of U.S. and Canadian policy.

READ: The Acid Rain Whodunit, Kenneth A. Rahn and Douglas H. Lowenthal, Natural History, July 1986.

17. Coastal urban Developments and the Problem of Shoreline Erosion.

A geographic analysis of the recent "boom" in beachfront development.

READ: America Washing Away, Susan Gilbert, Science Digest, August 1986.

18. The Geographic Distribution of The Earth's Landmasses and Oceans and the Theory of Plate Tectonics.

19. The Global Earthquake Hazard.

Earthquake zones and plate boundaries. Spatial development along active faults: California.

20. Volcanic Hazards.

The global distribution of volcanoes. Volcanic hazards in the Western United States: Mt. St. Helens case study. Volcanic soils and agricultural productivity: Hawaii and Indonesia.

21. Geography of Energy Resources: Production and Consumption.

Location of energy resources and availability. Energy alternatives: solar, geothermal, wind, biological, nuclear. Geographic patterns of energy transportation and consumption.

22. The Global Greenhouses Effect.

Spatial variations in the carbon dioxide and climate problem. Causes and consequences of global atmospheric warming.

READ: Earth Atmosphere in More Danger Than First Thought, Donald Rheem, The Christian Science Monitor, June 12, 1986.

GENERAL TOPIC: Water Resources.

23. The Spatial Distribution of Water Resources. The Hydrologic Cycle and the Water Budget. Water Pollution. Karst landscapes. Location of U.S. aquifers. Pollution and depletion of groundwater resources.

Point and non-point sources of water pollution. Eutrophication. Waste water treatment.

READ: Water and Man, Grigori Voropayev, The UNESCO Courier, January 1985.

READ: Groundwater: Buried Treasure, Frank Forrester, American Forests, August 1984.

24. A geographic analysis of Water Problems in the United States.

Planning for future water use. The California water plan.

25. The Fate of the Earth.

The Gaia hypothesis.

READ: GAIA, James Lovelock.