



COURSE IMPLEMENTATION DATE: January 2002
 COURSE REVISED IMPLEMENTATION DATE: September 2013
 COURSE TO BE REVIEWED: June 2018
(six years after UEC approval) *(month, year)*

OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.
 Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

<u>GEOG 311</u>	<u>Geography</u>	<u>4</u>
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS
Global Resources and the Environment		
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

This course investigates the relationships between communities, markets, and the environment in the use and management of natural resources. Consideration is given to how global markets influence spatial patterns of energy, mineral, forest, fish, and agricultural development; the use and overuse of renewable and common pool resources; and the challenges firms and communities face in incorporating sustainable planning principles into resource management. This course utilizes case studies of resource-dependent and Indigenous communities and regions in Canada and the U.S., as well as global examples of the changing nature of the industrial production of natural resources. Field trips outside of class time may be required. Please refer to department website for field trip scheduling information.

PREREQUISITES: One of the following: GEOG 211, GEOG 240, GEOG 242, BIO 210, ECON 100, ECON 101, or ECON 361.

COREQUISITES:
 PRE or COREQUISITES:

SYNONYMOUS COURSE(S):

- (a) Replaces: _____
- (b) Cross-listed with: _____
- (c) Cannot take: _____ for further credit.

SERVICE COURSE TO: *(department/program)*

TOTAL HOURS PER TERM: 60

STRUCTURE OF HOURS:

Lectures:	<u>20</u>	Hrs
Seminar:	<u>35</u>	Hrs
Laboratory:	_____	Hrs
Field experience:	<u>5</u>	Hrs
Student directed learning:	_____	Hrs
Other (specify):	_____	Hrs

TRAINING DAY-BASED INSTRUCTION:

Length of course: _____
 Hours per day: _____

OTHER:

Maximum enrolment: 28
 Expected frequency of course offerings: Annually
(every semester, annually, every other year, etc.)

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only) Yes No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department) Yes No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE: Yes No

Course designer(s): <u>Dr. Michelle Rhodes</u>	Date approved: <u>March 26, 2012</u>
Department Head: <u>Dr. Michelle Rhodes</u>	Date of meeting: <u>April 13, 2012</u>
Supporting area consultation (Pre-UEC)	Date approved: <u>April 13, 2012</u>
Curriculum Committee chair: <u>Tetsuomi Anzai</u>	Date approved: <u>April 13, 2012</u>
Dean/Associate VP: <u>Dr. Jacqueline Nolte</u>	Date of meeting: <u>June 22, 2012</u>
Undergraduate Education Committee (UEC) approval	

LEARNING OUTCOMES:

Upon successful completion of this course, students should be able to:

1. Apply concepts and theories from economics and economic geography to the study of how a natural resource is produced and managed.
2. Describe, contrast, and critically analyze the management of commons and non-commons resources.
3. Provide argument for integrative, interdisciplinary, and multi-scalar approaches to problem-solving in resource management.
4. Identify flows of resource use and consumption for particular commodities.
5. Identify appropriate academic and non-academic sources for information on topics within resource geography, and how to critically utilize these sources in a research project.
6. Clearly convey the findings of one's research on a resource industry to a general audience.

METHODS: (*Guest lecturers, presentations, online instruction, field trips, etc.*)

The format of the course may include lectures, assigned readings, discussion groups, oral presentations, and field trips. Particular emphasis is placed on student participation in seminars, group presentations, and field trips. Audio-visual materials and case studies will be used to support lecture material.

METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Examination(s) Portfolio assessment Interview(s)

Other (specify):

PLAR cannot be awarded for this course for the following reason(s):

TEXTBOOKS, REFERENCES, MATERIALS: [*Textbook selection varies by instructor. Examples for this course might be:*]

Required texts:

Armitage, Derek. 2010. Adaptive capacity and environmental governance. London: Springer. (selected chapters)
Hackett, S. 2005. Environmental and Natural Resource Economics. M.E. Sharpe, Inc. (selected chapters)
Hayter, R. 2000. Flexible Crossroads: The Restructuring of British Columbia's Forest Economy. UBC Press. (selected chapters)
Kurlansky, Marc. 1998. Cod: A Biography of a Fish that Changed the World. Penguin.
Ostrom, E., et al. 2002. Drama of the Commons. National Academe Press. (selected chapters)
Pereira, L., et al. 2009. Coping with Water Scarcity: Addressing the Challenges, *rev. ed.* Springer. (selected chapters)
Wilmsen, C. 2008. Partnerships for Empowerment: Participatory Research for Community-Based Natural Resource Management. Earthscan Publications Lmted. (selected chapters)

Additional readings (available on-line or reserve) drawn from the following sources:

Allison, E. JH. 2001. Big laws, small catches: Global ocean governance and the fisheries crisis. *Journal of International Development* 13: 933-950.
Armitage, D.R. 2005. Community-based narwhal management in Nunavut, Canada: Change, uncertainty, and adaptation. *Society and Natural Resources* 18: 715-31.
Ballard, H. and L. Huntsinger. 2006. Salal Harvester Local Ecological Knowledge, Harvest Practices and Understory Management on the Olympic Peninsula, Washington. *Human Ecology* 34: 529-547.
Bannon, I. and P. Collier. 2003. Natural Resources and Violent Conflict. Washington, D.C.: The World Bank.
Bell, S.E. and R. York. 2010. Community Economic Identity: The Coal Industry and Ideology Construction in West Virginia. *Rural Sociology* 75 (1): 111-148.
Brewer, J. 2012. Don't Fence Me In: Boundaries, policy, and deliberation in Maine's Lobster Commons. *Association of American Geographers Annals* 102 (X): 1-20.
Bridge, G. 2004. Contested terrain: Mining and the environment. *Annual Review of Environment & Resources* 29 (1): 205-59.
_____. 2004. Mapping the Bonanza: Geographies of Mining Investment in the Era of Neoliberal Reform. *Professional Geographer* 56 (3): 406-421.
Delpeuch, F., et al. 2010. "Welcome to Wal-Mart" (Chapter 5), from *Globesity: A Planet out of Control?* Earthscan.
Dusyk, N. 2011. Downstream Effects of a Hybrid Forum: The Case of the Site C Hydroelectric Dam in British Columbia, Canada. *Association of American Geographers Annals* 101 (4): 873-881.
Gardner, R., Ostrom, E., and J. Walker. 1990. The Nature of Common-Pool Resource Problems. *Rationality and Society* 2(3): 335-358.
Gibbs, D. 2000. Ecological Modernization, Regional Economic Development and Regional Development Agencies. *Geoforum* 31(1): 9-19.
Goldemberg, J. 2007. Energy Choices Toward a Sustainable Future. *Environment* 49 (10): 7-17.
_____. 2000. Morality, Space, and the Power of Wind-Energy Landscapes. *Geographical Review* 90 (3): 381-394.
Grima, A.P., S. Horton, and S. Kant. 2003. Introduction: Natural capital, poverty and development. *Environment, Development and Sustainability* 5: 297-314.
Hardin. G. 1968. The Tragedy of the Commons. *Science* 162 (3859): 1243-48.

Textbooks, references, materials continued:

- Hilson, G. and A. Basu. 2003. Devising Indicators of Sustainable Development for the Mining and Minerals Industry: An analysis of critical background issues. *International Journal of Sustainable Development and World Ecology* 10: 319-331.
- Huber, M. 2011. Enforcing Scarcity: Oil, Violence, and the Making of the Market. *Association of American Geographers Annals* 101 (4): 816-826.
- Joyce, A. and T. Satterfield. 2010. Shellfish Aquaculture and First Nations' Sovereignty: The quest for sustainable development in contested sea space. *Natural Resources Forum* 34: 106-123.
- Larsen, S. 2004. Place identity in a resource-dependent area of northern British Columbia. *Association of American Geographers, Annals* 94 (1): 941-960.
- McCarthy, J. 2006. Neoliberalism and the politics of alternatives: Community forestry in British Columbia. *Association of American Geographers, Annals* 96 (1): 84-104.
- McFarquhar, N. 2010. African farmers displaced as investors move in. *The New York Times* 21 December 2010.
- Pasqualetti, M. 2009. The Alberta Oil Sands from Both Sides of the Border. *Geographical Review* 99 (2): 242-267.
- Rees, William. 2008. Human nature, eco-footprints, and environmental justice. *Local Environment* 13 (8): 685-701.
- Rice, A. 2009. Is there such a thing as Agro-Imperialism? *The New York Times Magazine* 22 November, 46-51.
- Walker, R. 2011. The Impact of Brazilian Biofuel Production in Amazonia. *Association of American Geographers Annals* 101 (4): 929-938.
- Woods, B., and J. Gordon. 2011. Mountain Top Removal and Job Creation: Exploring the relationship using spatial regression. *Association of American Geographers Annals* 101 (4): 806-815.

Films:

- Fox, Josh. 2011. *Gasland*. HBO Documentary Films.
- Yale University. 2009. *Leveling Appalachia*. Environment 360 series. Available on-line through Yale University.

SUPPLIES / MATERIALS:

Courses in Geography may have mandatory field trips with additional fees. Details are available on course outlines distributed in class, and dates will be posted 30 days in advance of the start of classes.

STUDENT EVALUATION: [An example of student evaluation for this course might be:]

Exam 1	15%
Exam 2	20%
Final exam	25%
Commodity report	25%
Summary report	5%
Class and group discussion	10%

COURSE CONTENT: [Course content varies by instructor. An example of course content might be:]

Week 1	Introduction to course: How are natural resources and resource types identified? Ecosystem and resource services;
Weeks 2-3	Key Ideas in the Economic Geography of Natural Resources; The problem of scarcity and limits to growth; Sustainable Development
Weeks 3-4	Neoclassical Approaches to Resource Development and Sustainability in Air and Water: Tradable Permits and Environmental Taxes; Ecological Modernization, decentralization, and other theories of institutional change
Week 5	Exam 1; Mining and Energy: Can Mining be 'Sustainable'? Planning for Hard Rock Mining and Mine Recovery
Week 6	Energy: Industrial Inertia, Scarcity, and Available Options for the Future—Part 1: Renewables
Week 7	Energy: Industrial Inertia, Scarcity, and Available Options for the Future—Part 2: Fossil Fuels and Part 3: Mountaintop Removal;
Week 8	The Corn Economy: Agriculture, Agribusiness, and Food Provision on a Global Scale
Week 9	Exam 2; Commons Theory and Renewable Resource Development
Week 10	Managing and Privatizing the Commons in Fisheries
Week 11	Forest Management in BC: Models for growth and sustainability
Week 12	Co-Management in Forest and Ocean Resources
Week 13	Participatory (Action) Research and Resource Management on the Ground
Week 14	Final projects and exam