



COURSE IMPLEMENTATION DATE: January 2013
 COURSE REVISED IMPLEMENTATION DATE: May 2014
 COURSE TO BE REVIEWED: May 2020
(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

GEOG 318	Geography	4
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS
Water Resources Management		
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

This course examines the issues surrounding water as a global resource and the scientific principles involved in water resources management. Emphasis is placed on the understanding of the role that water as a resource has within our societies, including our perception of water as a resource, contamination of water, treatment of water, and possible impacts on water supply resulting from climate change. 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 201, GEOG 202, GEOG 211, GEOG 219, or GEOG 311.
 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>40</u>	Hrs
Seminar:	_____	Hrs
Laboratory:	_____	Hrs
Field experience:	<u>20</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: Once a year
(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>Steven Marsh</u>	Date approved: <u>October 3, 2013</u>
Department Head: <u>Dr. Michelle Rhodes</u>	Date of meeting: <u>October 11, 2013</u>
Campus-Wide Consultation (CWC)	Date approved: <u>October 18, 2013</u>
Curriculum Committee chair: <u>David Fenske</u>	Date approved: <u>October 18, 2013</u>
Dean/Associate VP: <u>Dr. Lucy Lee</u>	Date of meeting: <u>November 22, 2013</u>
Undergraduate Education Committee (UEC) approval	

LEARNING OUTCOMES:

Upon successful completion of the course the student will be able to:

1. Critically discuss the nature of water as a global resource.
2. Collect, analyze, and present watershed and water quality data in written and graphical form.
3. Provide detailed written and verbal analysis of the threats to water resources.
4. Explain the characteristics of surface and groundwater resources.
5. Identify and critically discuss sustainable water management practices for different socio-spatial contexts.

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. An example of texts for this course might be:]

Artiola, J. F., I. L. Pepper, and M. Brusseau, 2004. Environmental Monitoring and Characterization. Elsevier, London.
De Villiers, M., 1999. Water. Stoddart, Toronto.
Fagan, B., 2011. Elixir. A history of Water and Humankind. Bloomsbury Press, New York.
Gordon, N.D., et al., 2004. Stream Hydrology. An Introduction for Ecologists 2nd edition. John Wiley & Sons.
Pennington, K.L. and T.V. Cech, 2010. Introduction to Water Resources and Environmental Issues. Cambridge University Press, Cambridge.

SUPPLIES / MATERIALS:

Field trip fee may be required.

STUDENT EVALUATION:

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

Field work reports	30%
Research presentations	40%
Exams (2)	30%

COURSE CONTENT:

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

1. Historical Overview of water as a resource.
2. Perception of water
3. Field Techniques of Watershed Assessment
4. Water Quality Monitoring
5. Water Contamination
6. Waste Water Treatment
7. Drinking Water Treatment
8. Conflict over Water Resources
9. Water Diversion
10. Impact of Climate Change on Water Resources
11. Sustainability of Water Usage