

COURSE IMPLEMENTATION DATE:	January 2008
COURSE REVISED IMPLEMENTATION DATE:	
COURSE TO BE REVIEWED:	April 2011
(Four years after PAC final approval date)	(MONTH YEAR)

OFFICIAL 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 and the material will vary - see course syllabus available from instructor

FACULTY/DEPARTMENT:	Geography	
GEOG 417		4
COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS
	Wetland Biogeography	
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

Wetland environments, though typically representing a small portion of the ecosystems that maintain them, provide critical ecosystem function. In this course we will evaluate wetland function across environmental gradients, the biogeochemistry that regulates these environments, and the flora and fauna that they support. In addition, we will evaluate wetland sediments as proxies and archives of past environmental change at a variety of spatial and temporal scales. Field trips outside of class time (required) will emphasize local wetland form and function.

PREREQUISITES: **GEOG 317; or BIO 210 and one of BIO 307, BIO 330 or BIO 340**
COREQUISITES: **None**

SYNONYMOUS COURSE(S)	SERVICE COURSE TO:
(a) Replaces: _____ (Course #)	_____
(b) Cannot take: _____ for further credit. (Course #)	_____

TOTAL HOURS PER TERM:	75	TRAINING DAY-BASED INSTRUCTION	
STRUCTURE OF HOURS:		LENGTH OF COURSE:	_____
Lectures:	45 Hrs	HOURS PER DAY:	_____
Seminar:	Hrs		
Laboratory:	12 Hrs		
Field Experience:	18 Hrs		
Student Directed Learning:	Hrs		
Other (Specify):	Hrs		

MAXIMUM ENROLLMENT:	20
EXPECTED FREQUENCY OF COURSE OFFERINGS:	Every two years
WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

AUTHORIZATION SIGNATURES:

Course Designer(s): _____ Dr. Jonathan Hughes	Chairperson: _____ Moira Gutteridge-Kloster (<i>Curriculum Committee</i>)
Department Head: _____ Dr. Ken Brealey	Dean: _____ Dr. Eric Davis
PAC Approval in Principle Date: _____	PAC Final Approval Date: Apr. 27, 2007

LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:

Upon successful completion of this course students will:

- Be familiar with wetland classification at regional and global scales;
- Understand biogeochemical cycles that define wetlands and regulate species distributions;
- Be able to interpret wetland sediments as archives and proxies for past environmental change;
- Have improved critical thinking, computation, and writing skills; and
- Have knowledge about wetland function that is transferable to a career in the environmental field.

METHODS:

Course format will include lectures, laboratory sessions, and field trips. Laboratory exercises and assignments are designed to supplement theory presented during lectures.

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR (Please check:) Yes No

METHODS OF OBTAINING PLAR:

Examinations and/or portfolio assessment.

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

Mitsch, W.J. and J.G. Gosselink. 2000. Wetlands, 3rd edition. John Wiley and Sons, Inc., New York. 920 p.

Articles from peer-reviewed journals and government reports

SUPPLIES / MATERIALS:

Waterproof field notebook

Field-trip fee

STUDENT EVALUATION:

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

Lab assignments	30%
Midterm exam	25%
Field-project report	20%
Final exam	25%

COURSE CONTENT:

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

Lectures

Week Topic

1	Introduction/history of wetland science/examples of wetland function
2	Spatial distribution of wetlands (local, regional, global)
3	Wetland classification
4	Biogeochemistry (nutrient cycling, oxidation-reduction reactions)
5	Biogeochemistry, continued

6 Plant adaptations to waterlogged environments

COURSE CONTENT, cont.

Lectures

Week Topic

- 7 Plant adaptations to waterlogged environments
- 8 Hydric soils/sediments—description and classification
- 9 Plant macrofossils preserved in wetland soils
- 10 Wetlands sediments as archives and proxies for past environments
- 11 Bogs/swamps/riparian habitats
- 12 Intertidal wetlands (salt marshes and tidally-influenced freshwater marshes)
- 13 Wetland legislation (Canada/USA perspectives)

Labs

Week	Topic	Location*
1	No lab	No lab
2	Wetland identification	Silverdale Creek wetland
3	Wetland classification (plant identification)	Indoor lab
4	Biogeochemistry	Silverdale Creek wetland
5	Biogeochemistry	Indoor lab
6	Plant adaptations	Silverdale Creek wetland
7	Plant adaptations	Indoor lab
8	Soil descriptions	Silverdale Creek wetland
9	Plant macrofossil identification/interpretation	Indoor lab
10	Plant macrofossil interpretation	Indoor lab
11	Riparian habitats	Chilliwack River
12	Fraser River estuary	Saturday field trip
13	Wetland legislation	Classroom debate and discussion

* Field locations will likely vary from year to year.