

**WR 506: INTERDISCIPLINARY METHODS IN WATER RESOURCES
TUES/THURS. 2-3:15 ROOM LAW 107**

COURSE SYLLABUS

In this course, teams composed of first-year students and faculty from traditionally disparate disciplines address real water resource issues to: gain experience using integrating methods essential to interdisciplinary work; learn how to effectively communicate with people in other disciplines; and develop an understanding of the roles, interactions, strengths, and weakness of the various relevant disciplines. The course takes an approach that requires focused interdisciplinary problem solving using select case studies.

Objectives

1. To develop skills and techniques for working across disciplines to solve interdisciplinary water resources problems;
2. To provide students with a broad conceptual understanding of topics in the physical, biological and social sciences as applied to water resources;
3. To improve student abilities in problem solving, communication and teamwork.

Primary Professors

Name	Office	Phone	e-mail
Barbara Cosens	LAW 204	5-6298	bcosens@uidaho.edu
Fritz Fiedler	BEL 100	5-2980	fritz@uidaho.edu
Brian Kennedy	CNR 103C	5-5171	kennedy@uidaho.edu

Mandatory Field Trip: Students will be required to attend one day of the water resources, WR 504, field trip on Oct. 9 to visit the Lapwai Creek basin. Students may attend the second day of the field trip planned to visit Red River and Dworshack Reservoir, but are not required to do so. Field trip itinerary and logistics will be provided.

Schedule of Classes:

DATE	CLASS	ASSIGNMENT	LEAD INSTRUCTOR
August 26	Introduction to interdisciplinary learning Presentation on toolbox	Reading: Eigenbrode et al.	Cosens: Intro. Eigenbrode Wulfhorst
August 28	Presentation of the Lapwai Multidisciplinary Project, Group Assignments		Cosens Kennedy Fiedler

September 2	Introduction to scientific methodology		Kennedy
September 4	Introduction to hypothesis testing and quantitative uncertainty		Fiedler
September 9	aquatic biology		Kennedy
September 11	Hydrology, water balance, flood plain management,		Fiedler
September 16	Surface water hydrology, gw/surface water interaction		Boll
September 18	Engineering design		Fiedler
September 23	institutions/governance Lapwai Multidisciplinary reports due Friday, Sept. 26		Wilson
September 25	Sediment transport/ restoration		Yaeger
September 30	Lapwai Multidisciplinary Project Group Workday		
October 2	Lapwai Multidisciplinary Project Group Presentations		

October 7	Lapwai Interdisciplinary Project Discussion and Group Workday on your own – attend the Palouse Basin Water Summit if you can		No class
October 9	LAPWAI FIELD TRIP Field lectures will cover aquatic biology and institutions and tribal jurisdiction as they relate to the Lapwai Basin		Cosens, Kennedy
October 14	De-brief from field trip Group work on Lapwai Interdisciplinary Project		Cosens
October 16	legal reasoning, state water law, reserved rights	Reading: Drake v. Earhart, Glen Dale Ranches v. Shaub, Winters v. U.S. Brief Winters	Cosens
October 21	Land use law		Long
October 23	Natural resource economics	Reading on website: Griffin, 1998	Elbakidze
October 28	Group work on Lapwai Interdisciplinary Project		
October 30	Cultural property rights and tribal sovereignty and an exercise in developing questions for collaborative research		Rodney Frey
November 4	Interdisciplinary analysis of agricultural practices: till/no till decision making		Boll, Wulfhorst
November 6	Group work on Lapwai Interdisciplinary Project		

November 11	social science theory		Wulfhorst
November 13	Social assessment/role play Interdisciplinary Project Reports Due Nov. 14 – send electronically to Cosens		Higgins
November 18	public participation/interview methods		Beall
November 20	Presentation of Lapwai Group Projects		
Nov. 23-28		Fall Recess	
December 2	Presentation of Lapwai Group Projects		
December 4	Tool box Evaluation of skills learned		Eigenbrode, O'Rourke (Cosens, Fiedler, Kennedy)