EVSP558

Course Summary

Course : EVSP558 **Title :** Watershed Management
Length of Course : 8
Prerequisites : N/A **Credit Hours :** 3

Description

Course Description: In recent years, water resource management in the United States has begun a shift away from top-down, government agency-directed decision processes toward a collaborative approach of negotiation and problem solving. Rather than focusing on specific pollution sources or specific areas within a watershed, this course will present this new process, considering the watershed as a whole, and seeking solutions to an interrelated set of social, economic, and environmental problems. Through readings, discussions, and current and historical case studies, students will explore a wide range of threats to the productivity and health of watersheds and explore new, collaborative approaches to watershed management.

Course Scope:

This course is a study of the topic of water resources management from the watershed perspective. Emphasis will be on using a collaborative approach that incorporates adaptive management principles. The primary learning approach used in this course will be student research and investigation, coupled with case studies of successful watershed management approaches throughout the U.S.

Objectives

The successful student will fulfill the following learning objectives:

- LO-1 Explain key terms, approaches, and concepts of water resources management.
- LO-2 Describe the importance of managing water resources at the watershed level.
- LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.
- LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.
- LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.
- LO-6 Develop a watershed management report.
- LO-7 Apply adaptive management strategies that enhance collaboration and support organizational missions, goals and objectives.

Outline

Week 1: What defines a watershed? Introduction to Collaborative Approaches

Learning Objectives

LO-1 Explain key terms, approaches, and concepts of water resources management.

LO-2 Describe the importance of managing water resources at the watershed level.

Readings

Watershed Basics: http://www.epa.gov/owow/watershed/approach.html

Find your watershed (for use in the DB Assignment for Week 1): http://cfpub.epa.gov/surf/locate/index.cfm

Read: Sabatier et al., Chapters 1 and 2

Assignments

Forum 1

Week 2: Watershed Planning The Role of Public Participation

Learning Objectives

LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.

LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.

LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.

Readings

Watershed Plans and Planning: http://water.epa.gov/polwaste/nps/handbook_index.cfm

Sample Watershed Report (outline for Final Watershed Report): http://www.phillywatersheds.org/doc/Schuylkill_RCP.pdf

Read: Sabatier et al., Chapter 3

Assignments

Forum 2

Case Study 1

Week 3: Issues in Watershed Planning: Dam Removal Building Trust and Fostering Engagement

Learning Objectives

LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.

LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful

implementation of a watershed management plan.

LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.

Readings

Dam Removal and Watershed Restoration: http://www.nrcs.usda.gov/programs/WSRehab/Rehab_CaseStudies.htm

Fish Passage Decision Support System (FPDSS): http://fpdss.fws.gov/

Read: Sabatier et al., Chapters 4 and 5

Assignments

Forum 3

Case Study 2

Watershed Identified for the Final Watershed Report DUE via e-mail to Instructor (approval required)

Week 4: Issues in Watershed Planning: Abandoned Mine Reclamation Partnership Success

Learning Objectives

LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.

LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.

LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.

Readings

Abandoned Mine Reclamation and Watershed Restoration: http://www.centerwest.org/publications/pdf/mines.pdf

Read: Sabatier et al., Chapter 6

Assignments

Forum 4

Case Study 3

Week 5: Issues in Watershed Planning: Agriculture Collective Action

Learning Objectives

LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.

LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.

LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.

LO-6 Develop a watershed management report.

LO-7 Apply adaptive management strategies that enhance collaboration and support organizational missions, goals and objectives.

Readings

Read: Sabatier et al., Chapter 7

Assignments

Forum 5

Draft Outline of Watershed Report

Week 6: Issues in Watershed Planning: Stormwater Discharges Watershed Partnerships in CA and WA

Learning Objectives

LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.

LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.

LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.

Readings

Read: Sabatier et al., Chapter 8

Assignments

Forum 6

Case Study 4

Week 7: Issues in Watershed Planning: Urbanization Conclusions on Collaboration

Learning Objectives

LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.

LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.

LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.

LO-6 Develop a watershed management report.

LO-7 Apply adaptive management strategies that enhance collaboration and support organizational missions, goals and objectives.

Readings

Read: Sabatier et al., Chapter 9

Assignments

Forum 7

Work on Final Watershed Report

Reflection Paper

Week 8: Course Review and Summary

Learning Objectives

LO-1 Explain key terms, approaches, and concepts of water resources management.

LO-2 Describe the importance of managing water resources at the watershed level.

LO-3 Analyze Federal, State, regional, and local policies as they apply to watershed management.

LO-4 Assess the various institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.

LO-5 Assess interconnections among the diverse disciplines that are needed to adequately address practical water resources problems.

LO-6 Develop a watershed management report.

LO-7 Apply adaptive management strategies that enhance collaboration and support organizational missions, goals and objectives.

Readings

N/A

Assignments

Forum 8

Final Project – Watershed Report

Evaluation

Grading:

Name	Grade %
Forum Participation	24.00 %
Week 1 Forum	3.00 %
Week 2 Forum	3.00 %
Week 3 Forum	3.00 %
Week 4 Forum	3.00 %
Week 5 Forum	3.00 %
Week 6 Forum	3.00 %
Week 7 Forum	3.00 %
Week 8 Forum	3.00 %
Case Studies	36.00 %
Case Study 1 - DUE Week 2	9.00 %

Case Study 2 - DUE Week 3	9.00 %
Case Study 3 - DUE Week 4	9.00 %
Case Study 4 - Interview - Due Week 6	9.00 %
Draft Project Outline	15.00 %
Draft Watershed Outline - DUE Week 5	15.00 %
Final Project	25.00 %
Final Watershed Report	25.00 %
Reflection Paper	3.00 %
Reflection Paper - Due Week 7	3.00 %

Materials

Book Title: Swimming Upstream : Collaborative Approaches to Watershed Management

Author: Sabatier / Focht / Lubell / Trachtenberg / Vedlitz / Matlock

Publication Info: MIT Press

ISBN: 9780262693196

Other readings as identified in the Lessons

Additional Resources: Please go to the program guides in the APUS Library for additional resources:

Environmental Policy and Management:
http://apus.campusguides.com/environmental_policy_management?hs=a

Software Requirements

- Microsoft Office (MS Word, MS Excel, MS PowerPoint) - American Public University System provides Microsoft Office 365 to AMU/APU students and faculty at no cost
- Adobe Acrobat Reader

Course Guidelines

Citation and Reference Style

- Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Tutoring

- Tutor.com offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours* of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 15% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

Turn It In

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

Academic Dishonesty

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

Submission Guidelines

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.

Disclaimer Statement

- Course content may vary from the outline to meet the needs of this particular group.

Communicating on the Forum

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an on-going discussion about the assigned content.
- "Substantive" means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says "I agree" is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.
- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

University Policies

Student Handbook

- Drop/Withdrawal policy

- [Extension Requests](#)
- [Academic Probation](#)
- [Appeals](#)
- [Disability Accommodations](#)

The mission of American Public University System is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.