

## Water, Environment, and Society

Fall Semester 2010, Lectures: Tuesdays & Thursdays, 11:00 – 12:15, Harshbarger Bldg. Room 206.

\*You must enroll in GEOG397B (1-credit, required field-study trip all day Sat. Oct. 30<sup>th</sup>) by the end of the 1<sup>st</sup> day of class (Aug. 24<sup>th</sup>), or you will be dropped from GEOG304.

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Office hours Tuesdays 10:00–11:00 in Harvill Building Room 410

### Course summary

Explores human and natural systems and their dependence on freshwater at multiple scales. Topics of interest include global change, ecosystem services, groundwater, urbanization, land use, watershed and river basin management, stakeholder processes, water policy. One required field trip (Sat. Oct. 30<sup>th</sup>).

### Course materials

Rivers for Life: Managing Water for People and Nature. Sandra Postel & Brian Richter. 2003. Island Press.

Environment and Society: Human Perspectives on Environmental Issues, 4<sup>th</sup> Edition. Charles L. Harper. 2008. Prentice Hall.

Additional reading materials will be on the course D2L site (<http://d2l.ltc.arizona.edu/>) or distributed in class.

### Grading policy

Grades are based on class participation and regular assignments including quizzes on assigned readings (20%), one midterm exam (20%), attendance and report on the required field trip (30%), and a final comprehensive exam (30%). All testing is in class. Grading is strictly on the standard model (i.e. A=100-90, B=89-80, ... E less than 59). All exams combine multiple-choice questions, problem-solving including calculations (a calculator is required), and a written component. Students who have to miss an exam or field trip due to illness or other extraordinary event must contact the instructor in advance of the start of the exam to schedule a makeup. Requests to miss and make up an exam or field trip that are received after the start of the exam/trip will not be approved under any circumstances, resulting in an E grade for that part of the course.

### Requirements

***This syllabus is my contract with you.*** I expect you to follow it, just as I will. Regular class attendance is expected from every student. ***Please turn off laptops, cell phones, MP3 players or other music, and be quiet in the classroom.*** Note the new UA policy on late drops: "Beginning the second week and continuing through the last day of classes, a \$25 penalty fee will be charged to the student per student-initiated drop and per administrative drop (but not for a department drop or section change)."

***The field trip is required for course completion, so you must work out any scheduling conflicts in advance:*** Sat. Oct. 30<sup>th</sup> (8 am - 6 pm) to the proposed Rosemont mine site in the Santa Rita Mountains.

***Sites that you are responsible to know and follow:***

Threatening behavior: <http://policy.web.arizona.edu/~policy/threaten.shtml>

Academic integrity: <http://deanofstudents.arizona.edu/academicintegrity>

Religious holidays: <http://www.registrar.arizona.edu/religiousholidays/calendar.htm>

Students with disabilities: <http://drc.arizona.edu/learn/index.html>

For any problems, issues, or concerns, please refer to the instructor.

**CLASS SCHEDULE** (subject to revision as announced in class)

#. Date	Topic	Reading to be completed before class
1. Tue. 8/24	Introduction and course overview	<i>*must register for GEOG397B by end of day 8/24</i>
2. Thu. 8/26	Harnessing rivers	Postel & Richter pp. 1-26
3. Tue. 8/31	Freshwater ecology	Postel & Richter pp. 26-41
4. Thu. 9/2	Environmental flows	Postel & Richter pp. 42-78
5. Tue. 9/7	Policies for river restoration: international cases	Postel & Richter pp. 79-92 & 177-182
6. Thu. 9/9	U.S. water policy	Postel & Richter pp. 92-112 & 151-157
7. Tue. 9/14	Water allocation and economics	Postel & Richter pp. 112-119
8. Thu. 9/16	Water management including Arizona cases	Postel & Richter pp. 120-146
9. Tue. 9/21	Integrated water resources management	Postel & Richter pp. 167-177 & 199-204
10. Thu. 9/23	Santa Cruz River, Active Management Area	On D2L: Logan pp. 181-202
11. Tue. 9/28	Groundwater: Arizona & international cases	On D2L: Glennon review & Shah short article
12. Thu. 9/30	Central Arizona Project & Colorado River	<a href="http://www.cap-az.com/index.cfm">http://www.cap-az.com/index.cfm</a> "About us" read faq, mission, history, law of the river, customers
13. Tue. 10/5	Review for mid-term exam, and Desalination – the "next bucket" of water?	On D2L: CNet and WRRC reports
14. Thu. 10/7	Mid-term exam	
15. Tue. 10/12	Water harvesting (regular class session), and 6-8pm campus water harvesting visit ( <i>required</i> )	On D2L: RWHA and Popular Mechanics reports. 6:00 pm meet in front of Harvill Building
16. Thu. 10/14	Environment, human systems, & social science	Harper pp. 1-14
17. Tue. 10/19	Ecosystems and socio-cultural evolution	Harper pp. 14-28, and Fig. 1.6 (p. 34)
18. Thu. 10/21	Global water resources and pollution	Harper pp. 48-53, 64-77
19. Tue. 10/26	In-class preparation for 10/30 field trip	Guest speaker invited
20. Thu. 10/28	Energy and society	Harper pp. 110-149
21. Sat. 10/30	<b>Rosemont / Santa Ritas field trip (required)</b>	8:00 am meet in Harvill parking lot, return 6:00 pm
22. Tue. 11/2	Global climate change	Harper pp. 79-108
23. Thu. 11/4	Population, environment, and food	Harper pp. 151-173
24. Tue. 11/9	Water for food	Harper 173-190 & <a href="http://www.waterfootprint.org/">http://www.waterfootprint.org/</a>
25. Thu. 11/11	Global agriculture, "virtual water," and "more crop per drop"	<a href="http://www.watermonitoringalliance.net/">www.watermonitoringalliance.net/</a> , <a href="http://www.iwmi.cgiar.org/">www.iwmi.cgiar.org/</a> ... ...News_Room/Multimedia/coverage/pdf/focuson2.pdf
26. Tue. 11/16	Rosemont environmental impacts	Group project work
27. Thu. 11/18	Rosemont and jobs	Group project work
28. Tue. 11/23	Globalization, growth, and sustainability	Harper pp. 192-228
Thu. 11/25	No class – Thanksgiving break	
29. Tue. 11/30	Transforming structures: markets & politics	Harper pp. 230-268
30. Thu. 12/2	Environmentalism	Harper pp. 269-274, 282-286, 298-308
31. Tue. 12/7	Course summary and final exam review	
32. Tue. 12/14	Final exam (11:00 am – 1:00 pm)	

**Final note**

All information contained in this syllabus (other than the grading policy portion) may be subject to change with reasonable advance notice, as deemed appropriate by the instructor.