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Water Policy, Planning and Governance - University of Central Florida

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Water Policy, Planning and Governance Spring 2013

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Definition

Water Resources Policy, Planning and Governance deals with political, social, economic and administrative systems that affect the use, development, planning, and management of water resources at different levels.

Objective

To help students understand a variety of institutions, laws, decision-making, and policy tools used for governance, planning and management of water resources.

Procedure

Material will be covered through discussions, not necessarily restricted to the texts. Students are expected to read the texts and/or reading assignments thoroughly.

Readings

A tentative reading list is provided at the beginning of the course. However, readings are not limited to the provided list. It is the students' responsibility to update the reading list based on the suggested readings in class.

Term project

Each student will develop, complete, and present a term project. Projects should be a little innovative, but not too ambitious, an excuse to look into the application of what you learn during this course to your interests. On-line students must make in-class oral presentations at the end of semester.

Discussions

Learning in this course is heavily relied on active discussions of graduate students in class. Students must actively participate in discussions. Discussions include commenting on the readings every session as well as expressing self-opinions, criticizing other approaches, and suggesting alternative methods for solving problems.

On-line students are required to contribute to discussions through writing short-notes prior to and after each session. Prior discussion includes reviewing and commenting on the required readings (submission required before class) and follow-up discussions (submission required after class) include commenting on the topics discussed in class each session. The discussion notes should be submitted through emails as instructed in class.

Assignments

Occasional assignments are given to the students during the course. Students are expected to abide by the honor system for all work. Students may work together on homework assignments, unless otherwise noted. Each student must submit his/her own work. Please write the names of the students with which you collaborated on your homework assignment.

Videos

During the course different on-line videos are suggested to the students. Similar to readings, videos will be discussed in class. On-line students should submit their written commentary on the provided videos.

Teamwork and out-of-class discussions

Students can highly benefit from discussions out of the class environment on readings, assignments, and course topics. Therefore, forming discussion teams is highly encouraged. On-line students are highly encouraged to team up with on-campus students and communicate out of class through emails, phone, and online conversations. The in-class team members can represent their online partners in class discussions. Of course, in-class representative will be rewarded for representing online students in class discussions.

Online media and information sharing

Always try to share the information you find interesting if you want to hear what others have found interesting. Students can benefit from a variety of social media for sharing information with classmates and the rest of the world. The class will benefit from two social media: 1) Facebook: A Facebook page will be created for the course and the students can share interesting links (readings, articles, videos, figures, etc) with each other and comment on them; and 2) WaterSISWEB: Students are encouraged to use this platform to share information with classmates and other members of the water resources community worldwide. In particular, students are encouraged to post links under the "Planning and Management" category of WaterSISWEB. Students are required to report their online activity as instructed in class on a bi-weekly basis.

Grading

All work should be your own. This class adopts a "zero-tolerance" policy for any kind of academic dishonesty.

The grading system includes plus (+) and minus (-) grades. Grades will be based on student performance on Reading/Assignments, presentation, online activity, and term project. The following grading scale will be used:

Element	Weight
Discussion	35%
Assignments	20%
Online Activity	10%
Term Project	30%
Presentation	5%

Course Schedule

Date	Topic
Jan 8	Water Resources Management Evolution over Time
Jan 10	Global Water Issues: Old and New Challenges
Jan 15	Water Resources Modeling & Multi-purpose Management
Jan 17	Linear vs. Non-linear Management Paradigms
Jan 22	Common Pool Resource Management and Tragedy of the Commons
Jan 24	Water Governance and Management Institutions
Jan 29	Water Law
Jan 31	Water Policy
Feb 5	Water Resources Economics
Feb 7	Water Resources Economics
Feb 12	Ecological Economics
Feb 14	Water Resources Planning
Feb 19	International Water Conventions
Feb 21	Understanding Stakeholders' Behaviors and Water Conflicts
Feb 26	Transboundary Water Conflicts
Feb 28	Cooperative and Non-cooperative Conflict Resolution
Mar 12	Shared Vision Planning, Collaborative Management, & Social Learning
Mar 14	International Water Conventions
Mar 19	Integrated Water Resources Management
Mar 21	Integrated Water Resources Management
Mar 26	Water Resources Sustainability, Reliability, Resiliency
Mar 28	Principles of Sustainable Development
Apr 2	Florida Water History and Governance
Apr 4	Florida Water Issues
Apr 9	Florida Water Restoration Experiences and Challenges
Apr 11	Project Presentations & Discussions
Apr 16	Project Presentations & Discussions
Apr 18	Project Presentations & Discussions

Suggested Reading List

1. Ben Orlove and Steven Caton, *Water Sustainability* (2010), "Anthropological Approaches and Prospects", in *Annual Review of Anthropology*, 39, pp. 401-415.
2. Bish, R.L. (1982), "The Constitutional Framework," Chapter 3, *Governing Puget Sound*, Washington Sea Grant.
3. Bryan Jones and Frank Baumgartner (2004), "A Model of choice for Public Policy", *Journal of Public Administration Research and Theory*, 15(3), pp. 325-351.
4. Cox, W.E. (1982), "Water Law Primer," *Journal of Water Resources Planning and Management*, ASCE, Vol. 108, No. WR1, pp. 107-122.
5. Dalhuisen, Jasper M. (2003) "Price and Income Elasticities of Residential Water Demand: A Meta-Analysis" *Land Economics*, 79(2), pp. 292-308.
6. Disco, C. & J. van der Ende (2003), "Strong, Invincible Arguments? Tidal models as management instruments in twentieth-century Dutch coastal engineering," *Technology and Culture*, Vol. 44, July, pp. 502-535.
7. Draper, A.J., M.W. Jenkins, K.W. Kirby, J.R. Lund, and R.E. Howitt (2003), "Economic-Engineering Optimization for California Water Management," *Journal of Water Resources Planning and Management*, Vol. 129, No. 3, May, pp. 155-164.
8. Elinor Ostrom (2011), "Background on the Institutional Analysis and Development Framework", in *Policy Studies Journal*, 39(1), pp. 7-27.
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10. Giglio, R.J. and R. Wrightington (1972), "Methods for Apportioning Costs among Participants in Regional Systems," *Water Resources Research*, Vol. 8, No. 5, pp. 1133-1144.
11. Gregory, R.S. and R.L. Keeney (2003), "Making Smarter Environmental Management Decisions," *Journal of the American Water Resources Association*, Vol. 38, No. 6, Dec., pp. 1601-1612.
12. Harou, J.J., et al., (2009) "Hydro-economic Models: Concepts, Design, Applications, and Future Prospects," *Journal of Hydrology*, Vol. 375, Iss. 3-4, pp. 627-643.
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14. Joachim Blatter and Helen Ingram, eds (2001). "Reflections on Water: New Approaches to Transboundary Conflicts and Cooperation". MIT Press.
15. Jonathan Harris, (2006) "Environmental and Natural Resource Economics: A Contemporary Approach, Second Edition", Houghton-Mifflin, Chapter 3.

16. Kristin Anderson and Lisa Gaines, International Water Pricing: An Overview and Historic and Modern Case Studies”, Appendix D in Jerome Delli Priscoli and Aaron Wolf, Managing and Transforming Water Conflicts. Cambridge University Press, pp. 249-265.
17. Lawrence H. Goulder and Ian W.H. Parry, (2008) “Instrument Choice in Environmental Policy,” Resources for the Future Discussion Paper RFF-DP-08-07.
18. Lew, D., et al. (1996), “Approaches to Economic Valuation of Changes in Receiving Water Quality: A Critical Review”, project report, University of California Davis.
19. Lund, J.R. (2006), “Approaches to Planning Water Resources,” unpublished typescript, pp. 18.
20. Lund, J.R. and M.S. Israel (1995), “Water Transfers in Water Resource Systems,” Journal of Water Resources Planning and Management, ASCE, Vol. 121, No. 2, pp. 193-204.
21. Lund, J.R. and R.N. Palmer (1997), Water Resources System Modeling for Conflict Resolution,” Water Resources Update, Issue No. 108.
22. M. Sanctuary, H. Tropp and A. Berntell, “Making Water a Part of Economic Development,” World Health Organization.
23. Madani K. (2011), "Hydropower Licensing and Climate Change: Insights from Game Theory", Advances in Water Resources, Vol. 34 (2), pp. 174-183.
24. Madani K., (2010), "Game Theory and Water Resources", Journal of Hydrology, Vol. 381 (3-4), pp. 225- 238.
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Environmental Policy” Longman, pp. 59-87.

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