

Gestió de l'Aigua, l'Energia i el Territori**2015/2016**

Codi: 43484

Crèdits: 6

Titulació	Tipus	Curs	Semestre
4313300 Estudis Territorials i de la Població	OT	0	2

Professor de contacte

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Utilització de llengües

Llengua vehicular majoritària: anglès (eng)

Prerequisites

Oral and written English skills

Objectius

The module pretends to introduce students to current debates on the management of water and energy resources, emphasizing the territorial dimension. An attempt will be made to collect case studies at different scales in different areas of the world on these issues although a certain Mediterranean focus is to be expected.

The course will pay special attention to contrasting conventional management models based on centralized technologies, expert approaches and "top-down" management, with more alternative resources, decentralized technologies and a participatory processes open to larger segments of society. Both models will be compared in terms of governance and another very important element of the course will be the analysis of the territorial conflicts arising in the application of these management models.

Through readings of selected materials, presentations by instructors (and occasionally by invited guests) and class presentations and discussions students are expected to gain a basic, robust knowledge on water and energy alternatives and of their different governance frameworks.

Competències

- Detectar la complexitat de les dinàmiques territorials i demogràfiques i reconèixer els mecanismes de gestió més eficients, en particular en situacions de conflicte.
- Que els estudiants sàpiguen aplicar els coneixements adquirits i la seva capacitat de resolució de problemes en entorns nous o poc coneguts dins de contextos més amplis (o multidisciplinaris) relacionats amb la seva àrea d'estudi.
- Que els estudiants siguin capaços d'integrar coneixements i enfrontar-se a la complexitat de formular judicis a partir d'una informació que, tot i ser incompleta o limitada, inclogui reflexions sobre les responsabilitats socials i ètiques vinculades a l'aplicació dels seus coneixements i judicis.
- Treballar en un context internacional i multidisciplinari

Resultats d'aprenentatge

1. Conèixer diferents models de gestió de l'aigua i de l'energia, especialment pel que fa a la dimensió territorial.
2. Conèixer i comprendre els principals conflictes territorials i socioambientals vinculats amb la gestió de l'aigua i de l'energia.

3. Que els estudiants sàpiguen aplicar els coneixements adquirits i la seva capacitat de resolució de problemes en entorns nous o poc
4. Que els estudiants siguin capaços d'integrar coneixements i enfrontar-se a la complexitat de formular judicis a partir d'una informació que, tot i ser incompleta o limitada, inclogui reflexions sobre les responsabilitats socials i ètiques vinculades a l'aplicació dels seus coneixements i judicis.
5. Treballar en un context internacional i multidisciplinari

Continguts

Introduction to the course, organization and distribution of the readings by topic. Lecture: The water-energy nexus

The governance of large conventional hydraulic technology : reservoirs and water transfers

The governance of large alternative hydraulic technology: desalination and water reuse

The change of scale. Governance of decentralized water resources: groundwater, greywater and rainwater

Managing water demand: technology vs economy

Managing water demand: the behavioral component

Managing water demand: the role of structural factors

Integrated water management in cities: the liberal view

Integrated water management in cities: the emancipatory view

Metodologia

The class will follow a seminar format consistint first on a brief introduction to the specific topic given by the instructor followed by the presentation of course work (assigned readings) by students, the group discussion of the main points discussed in the readings, and a final conclusion coordinated by the instructor. In some sessions we will have an invited speaker. Students are expected to read the assigned materials; prepare and guide discussions and participate actively in the debates

Activitats formatives

Títol	Hores	ECTS	Resultats d'aprenentatge
Tipus: Dirigides			
Case studies	8	0,32	3
Lectures	3,3	0,13	3
Oral presentation	4,6	0,18	4, 5
Seminars	16,6	0,66	5
Tipus: Supervisades			
Preparation of oral presentations	3,5	0,14	4, 5
Readings	17	0,68	1, 2
Resolution of case studies	3	0,12	2, 5
Tutorials	4	0,16	1, 2, 3, 4, 5
Tipus: Autònomes			
Personal study	26,6	1,06	1, 2, 3, 4
Preparation of papers	34	1,36	3

Readings	23,4	0,94	1
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Avaluació

Active participation in class (25%)
 Oral presentations (25%)
 Resolution of cas estudies (10%)
 Paper to be discussed with instructors (40%)

Activitats d'avaluació

Títol	Pes	Hores	ECTS	Resultats d'aprenentatge
Final work	40%	2	0,08	
Oral presentation	25%	2	0,08	4, 5
Participation in seminars	25%	2	0,08	2, 3
Resolution of case studies	10%	0	0	4, 5

Bibliografia

Bibliography (Water)

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- Buzar S, Ogden PE, Hall R. 2005. Households matter: the quiet demography of urban transformation. *Progress in Human Geography* 29(4):413-36
- European Environment Agency. 2009. Water resources across Europe-confronting water scarcity and drought. EEA Rep. No. 2/2009, EEA, Copenhagen
- Fielding KS, Russell S, Spinks A, Mankad A. 2012. Determinants of household water conservation: the role of demographic, infrastructure, behavior and psychosocial variables. *Water Resources Research* 48(10)
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- Prud'homme A. 2011. *The Ripple Effect: The Fate of Freshwater in the Twenty-First Century*. New York: Scribner
- Renwick ME, Archibald SO. 1998. Demand side management policies for residential water use: Who bears the conservation burden? *Land Economics* 74:343-59.
- Sauri, D. 2013: *Water Conservation: Theory and Evidence in Urban Areas of the Developed World Annual Review of Environment and Resources* 38:1-22.
- Sultana, F. and Loftus, A (eds) 2012 *The right to Water. Politics, governance and social struggles*. London: Earthscan.
- Swyngedouw, E. *Social Power and the Urbanization of water* Oxford: Oxford University Press
- Troy P, ed. 2008. *Troubled Waters: Confronting the Water Crisis in Australian Cities*. Canberra, Australian University Press
- UNESCO. 2012. *The UN World Water Development Report: Managing Water under Uncertainty and Risk*. Paris: UNESCO
- Willis RM, Stewart RA, Panuwatwanich K, Williams PR, Hollingsworth AL. 2011. Quantifying the influence of environmental and water conservation attitudes on household end use water consumption. *Journal of Environmental Management* 92:1996-2009
- World Economic Forum. 2011. *Water Security. The Water-Food-Energy Nexus*. Washington, DC: Island.
- Yudelson J. 2010. *Preventing the Next Urban Water Crisis*. Gabriola Island, BC: New Society
- (A more comprehensive readinglist will be distributed at the beginning of each part)