Universitat Autònoma de Barcelona

Gestió de l'Aigua, l'Energia i el Territori 2016/2017

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 d'idiomes a l'assignatura

Llengua vehicular majoritària: anglès (eng)

Prerequisits

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 tecnologies, 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 diferent 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

1. Planning, water and energy

- Nature, society and power

- Planning and management

- The water-energy nexus

2. Water and energy supply

- Large conventional hydraulic technology: reservoris and water transfers

- Large alternative hydraulic technology: desalination and water reuse

- Fossil energy sources, "peak oil" and climate change

- Energy security and risk management: nuclear energy and social movements

- Renewal energy: solar, wind and biological energy

3. Water and energy demand

- Technology vs economy

- The behavioral component

- The role of structural factors

4. The politics of scale

- Scalar effects and multilevel governance

- Centralized and decentralized models

- Governance of decentralized water resources: groundwater, greywater and rainwater

- Electricity governance: production, distribution and commercialization

5. Commodification, social protection and emancipation

- Privatization and municipalization

- Water and energy as social needs

- Governance of the commons and governance as commons

- Integrated and water management in cities: the liberal vs the emancipatory view

- Social innovation and local development: cities in transition and energy cooperatives

Metodologia

The following activities will be carried out:

a) Lectures. In some sessions we will have an invited speaker.

b) Seminars: a brief introduction to the specific topic given by the instructor followed by the presentation of assigned readings by students, the group discussion of the main points discussed in the readings, and a final conclusion coordinated by the instructor. 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			
Lectures	6	0,24	3
Oral presentation	6	0,24	4, 5
Seminars	20	0,8	5
Tipus: Supervisades			
Preparation of oral presentations	5	0,2	4, 5
Readings	21	0,84	1, 2
Tutorials	4	0,16	1, 2, 3, 4, 5
Tipus: Autònomes			
Personal study	27	1,08	1, 2, 3, 4
Preparation of papers	34	1,36	3
Readings	23	0,92	1

Avaluació

Exam: take home exam at the end of the course

Practical exercises: to be solved at class.

Oral presenation: from the assigned readings.

Participation: participation at seminar debates

Activitats d'avaluació

Títol	Pes	Hores	ECTS	Resultats d'aprenentatge
Examen	60%	2	0,08	1, 2, 3, 4
Participació a classe	10%	0	0	3, 4

Presentació oral	30%	2	0,08	1, 2, 4, 5	

Bibliografia

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