The Political Economy of Sustainable Energy Transitions

Educational subject description sheet

Basic information

Field of study Joint Bachelor in Sustainability	**Education cycle** 2025/26
Speciality Social Sciences & Humanities	**Realization year** 2027/28
Organizational unit Faculty of Law and Administration	**Subject code** UJ.WPAJBSSSHS.810.16597.25
Study level first cycle (joint degree programme)	**Lecture languages** english
Study form full-time degree programme	**Subject related to scientific research** Yes
Education profile General academic	**Disciplines** Economics and Finance, International Relations
Mandatory elective	**ISCED classification** 0311 Economics
	USOS code

Subject coordinator	Piotr Szwedo
Lecturer	Clara Garcia, Rafael Fernández

Period Semester 5	**Examination** graded credit **Activities and hours** Lecture: 18	**Number of ECTS points** 2.0

Goals

C1	The aim is to interactively familiarize students with the premises and challenges of energy transitions, with an emphasis on the political economy of these transitions (key actors and norms). The students will learn: (1) to read energy data and to understand the relationship between energy uses, economic growth and productive structures, and technological developments; (2) about the role of States and firms in shaping energy transitions in various relevant countries or regions, such as the US, the EU, and China; and (3) the interaction between international economic relations and energy transitions. Through in-class discussions, students will hear about, and participate in debates regarding policy dilemmas and political economy conflicts.

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge – Student knows and understands:			
W1	the features and evolution of energy transitions in different world regions, with an emphasis on their political economy (key actors and norms).	JBS_K1_W01, JBS_K1_W03, JBS_K1_W04, JBS_K1_W05, JBS_K1_W06, JBS_K1_W07	credit with grade, essay
Skills – Student can:			
U1	interpret quantitative and qualitative information regarding energy transitions; as well as present complex information orally and in writing.	JBS_K1_U01, JBS_K1_U02, JBS_K1_U03	credit with grade, essay
Social competences – Student is ready for:			
K1	to take a reflective and critical attitude towards energy dilemmas and conflicts; and to respectfully discuss around contentious energy-related issues.	JBS_K1_K03, JBS_K1_K04, JBS_K1_K05	credit with grade, essay

Calculation of ECTS points

Activity form	Activity hours*	
Lecture	18	
preparation for classes	18	
essay preparation	20	
Student workload	**Hours** 56	**ECTS** 2.0

* hour means 45 minutes

Study content

No.	Course content	Subject's learning outcomes
1.	Online kick-off meeting (2 h)	W1, U1, K1

No.	Course content	Subject's learning outcomes
2.	From peak oil to climate change Presentation (2 h): Energy in the era of fossil fuels: Energy balances and energy growth. Kaya. Energy and GHG emissions. Business as usual and Net-Zero scenarios. Energy transition(s) by regions and countries. Classroom discussion (2 h): Green growth or degrowth?	W1, U1, K1
3.	States and companies Presentation (2 h): Policies for the energy transition. Market instruments and national strategies. Oil & Gas companies. Classroom discussion of case studies TBD (2 h): Renewables in China, Hydrogen in EU, Exxon, Orsted...	W1, U1, K1
4.	The geopolitics of energy transitions Presentation (2 h): Markets and power in the era of fossil fuels: Supply security and oil income distribution. Regionalization and technology races in energy transitions. Raw materials and neo-extractivism. Classroom discussion of case studies TBD (2 h): Latin America in Hydrogen	W1, U1, K1
5.	Just transitions Presentation (2 h): Energy poverty. Energy transition and income inequality. Energy transition, employment, and growth policies. Classroom discussion (2 h): Trade-offs between environmental, social, and economic goals?	W1, U1, K1
6.	Course summary and outlook Collective recapitulation and conclusions with regard to sustainability transformation (2 h)	W1, U1, K1

Course advanced

Teaching methods :

conversation lecture, lecture with multimedia presentation, discussion, case study

Activities	Examination methods	Credit conditions
Lecture	credit with grade, essay	Class preparation, class attendance, active and pertinent participation will help students to crystalise their essay topics (not graded); a written essay demonstrating knowledge of the course in a reflective manner (graded). Details regarding the participation requirement will be communicated during the first class.

Entry requirements

None

Literature

Obligatory

1. Materials provided during the class and additional literature suggested by the lecturer

Effects

Code	Content
JBS_K1_K03	The graduate can consider different visions of the future and develop own evidence-based opinions in reference to the balance of values linked to economic development, social welfare, and environmental protection.
JBS_K1_K04	The graduate can critically assess and verbalize own competencies and skills related to different aspects of sustainability as well as their need for development.
JBS_K1_K05	The graduate can defend the importance of scientific data and methods as a basis for decision-making.
JBS_K1_U01	The graduate can critically analyse academic literature, formulate research questions and conduct research under supervision.
JBS_K1_U02	The graduate can present and report knowledge, methodologies, ideas, problems and solutions, clearly and comprehensively, in different forms destined for different audiences – including discussions and debates which require defending a substantiated opinion, as well as conversations in a foreign language at the CEFR B2 level.
JBS_K1_U03	The graduate can apply adequate methods and tools, including selected IT tools, to solve problems related to data collection, analysis, and management in the context of sustainability.
JBS_K1_W01	The graduate can describe the concept of sustainability and recognize the differences in relevant definitions, models and approaches.
JBS_K1_W03	The graduate can give examples of sustainability-related dilemmas and hypothesize on the optimal course of action.
JBS_K1_W04	The graduate can identify sustainability-related problems specific to selected cultural, geographical, and political contexts.
JBS_K1_W05	The graduate can identify essential international instruments and institutions related to sustainability and explain their potential role in resolution of a given problem.
JBS_K1_W06	The graduate can describe interconnections between various aspects of sustainability and identify their significance in the context of natural and social sciences, with a special focus on disciplines included in the selected specialisation track (law and politics; chemistry and physics; chemistry and biology; economics and geography; economics, management and engineering; humanities).
JBS_K1_W07	The graduate can apply the theory and methodology of disciplines included in the selected specialisation track to sustainability-related problems, taking into consideration practical limitations such as protection of intellectual property.