

SEMINAR ENERGY & CLIMATE CHANGE, 2020

v. 17.03.2020

	DATE		SUBJECT	PROF.	
1	28/02 sexta	16h-18h	ENERGY & CLIMATE CHANGE: A COMPLEX RELATION, PERENE AND INTERDISCIPLINARY. Framework and purpose of the course in the PDACPDS. Practicalities and seminar program.	J. Seixas, FCT-UNL	
2	28/02 sexta	18-20h	Current state of the global energy system : main energy carriers, energy production and consumption regions; energy access; concepts of energy and carbon intensity.	J. Seixas, FCT-UNL	
3	6/03 6ª Feira	14h-16h	Session reserved for students meeting with the Scientific Committee on practical aspects of the PhD Program, and choice of tutors.	Comissão Científica	
4	20/03 6ª Feira	14h-16h	Global balance of CO2 emissions associated with energy and industrial processes. Estimates of the Global Carbon Budget (http://www.globalcarbonproject.org/) and its relationship to the global energy system and changes in land use. Future scenarios for greenhouse gas emissions: RCPs (Representative Concentration Pathways). Global emissions based on consumption vs. production.	J. Seixas, FCT-UNL	
5	27/03, 6ª feira	16h-18h	Energy Demand : energy services vs. final energy. How to measure and prospect energy services demand, focus on households. The role of smart meters. Energy poverty.	J. Gouveia, FCT-UNL	
6	4/04 Sábado	9h-11h	Renewables : Economic, environmental and energy security of endogenous vs. imported resources. Renewable technologies. Final energy supply cost curves; learning curves of energy technologies. Definition and usefulness of LCOE. System value of Renewables. Global renewables' market.	J. Seixas, FCT-UNL	
7	18/04 sabado	9h-11h	CARBON PRICING . Regulatory framework in the European Union: 2020 - 2030 targets. European low-carbon Roadmap 2050. Paris Agreement, and its implications.	J. Seixas, FCT-UNL	
8	8/05 sexta	14h-16h	Solar energy anf hydrogen : technological options, costs and the role for a carbon neutral energy system.	P. Fortes, FCT-UNL	
	8/05 sexta	18h-20h	Smart and Sustainable cities : concept, components and implications for the energy systems. The concept of Positive Energy Districts, and implications for future planning at the city level.	J. Seixas, FCT-UNL	
	15/05 & 16/05		Field trip (hopefully!)		
9	23/05 sábado	11h-13h	Debate on 'The future of energy system' After a selected set of papers provided by the professor.	students	class must be in person
10	30/05 sábado	11h-13h	Hands-on energy data: access to energy databases, Portuguese and European (PORDATA, DGEG, EUROSTAT). i) How to find and explore energy statistics and emissions of greenhouse gas (GHG) emissions for Europe and Portugal; ii) How to make energy conversions; iii) How to build indicators and charts with addec J. Seixas, FCT-UNL value; iii) How to analyze economic sectors, and interpret their performance in terms of energy consumption and greenhouse gas emissions.	J. Seixas, FCT-UNL	class must be in person
11	5/06 sexta	14h-16h	aula trocada com o Prof. Viriato, em 8/05		
12	20/06 sabado	11h-13h	Mentoring with each students' group : discussion on the approach and methods adopted by the students, expected results to be obtained with the final work; assessing preliminary results, if any.	students	class must be in person
13	26/06 sexta	14h-16h	Integrated assessment of energy systems : The energy system addressed by the systems analysis approach. How to envisage the future energy system? Implications for the decision making in the medium and long term. Concept and formulation of cost-effectiveness within the integrated energy systems. Sustainability of the carbon neutral energy system.	J. Seixas, FCT-UNL	
	3 July, sexta	9-11h	Presentation of the works developed by the students' groups.	students	class must be in person