Master's Degree in Energy Technologies for Sustainable Development

The energy sector, in its multiple aspects related to production is one of the most important and increasing field of the technology at the present time. The energy engineering is part of the group of the industrial branch of the engineering, and basically is the one which deals with the conception and management of energy installations and its components to ensure the best use of the resources available, take the most out of the renewable energies and minimize at the same time its impact on the environment.

Distribution of credits

Compulsory courses	Optional courses	Master Thesis	Total ECTS Credits
33.00	27.00	30.00	90.00

First year (compulsory)

Code	Course Name	Term	ECTS Credits
34079	Evaluation of the environmental impact of energy systems	A	4.5
34082	Technical and economical evaluation of energy systems	A	4.5
34083	Applied energy technology - Project course	A	6
34081	Measuring and monitoring of energy installations	A	6
34080	Practice o Energy Auditing	A	6
34084	Introduction to Research in the Energy field	A	6
		Total	33

First year (Optional)

Code	Course Name	Term	ECTS Credits
34097	Building Air Conditioning	B	4.5
34098	Energy design and certification of buildings	B	4.5
34092	Energy efficiency of electrical installations	B	4.5
34096	Commercial and industrial refrigeration	B	4.5
34086	Hydrogen - the Energy Vector	B	4.5
34090	Equipment integration, automatization and control of electrical installation	B	4.5
34099	New energy technologies for buildings - Near zero energy consumption	B	4.5

34102	Nuclear Power Plants	B	4.5
34094	Operation of electrical systems	B	4.5
34103	Radioactivity Protection and Nuclear Safety	B	4.5
34091	Smart electrical grids	B	4.5
34085	Hybrid Renewable Systems	B	4.5
34100	Nuclear power plants operation	B	4.5
34088	Solar Energy advanced technologies	B	4.5
34104	Thermohydraulics of Nuclear Power Plants	B	4.5
	Practical work on research centers or companies	B	4.5
		Total	27

Second year (compulsory courses)

Code	Course Name	Term	ECTS Credits
34106	Master Thesis		30
		Total	30