



Master's Degree in Energy Engineering pla 2022

Semester 1

Mandatory subjects			ECTS	Idioma
820730	REG	Energy Resources	5	English
820731	ESEC	Power System	5	English
820732	EMAM	Energy and Environment	5	English
820733	AER	Renewable Energy Technology	5	English

Elective subjects

Renewable Energies Speciality

820739	EO	Wind Power	5	English
820740	ESF	Solar Photovoltaics	5	English

Electrical Energy Speciality

820747	IERXE	Integration of Renewables in the Electric Grid	5	English
240EN32	240EN32	Electric Drives with High Efficiency and Low Environmental Impact	5	English

Thermal Energy Speciality

820757	MNTCM	Computational Methods in Energy Technology	5	English
820761	ITCMM	Advanced Course on Heat and Mass Transfer	5	English

Energy Management Speciality

240208	240EN35	Energy management and optimization of electrical power systems	5	Spanish
820767	EEMPEI	Energy Economy and Comprehensive Energy Planning Models	5	Spanish

Semester 2

Mandatory subjects

240207	240EN12	Energy Engineering Project	5	Cat/Spa/Eng
820736	ME	Energy Markets	5	English
820737	EEEURE	Energy Efficiency and Rational Use of Energy	5	English

Elective subjects

Renewable Energies Speciality

820741	EHM	Hydropower and Ocean Energy	5	English
820745	EGT	Geothermal Energy	5	Spanish

Electrical Energy Speciality

240205	240EN33	Dc Technology and Systems	5	English
240210	240EN37	Control of Electrical Machines and Power Electronics	5	Spat/Eng
820752	GEPFR	Power electronics and electrical machines application in renewable generation	5	English
240EN21	240EN21	Electrical Power Systems in a Distributed Environment	5	Spat/Eng

Thermal Energy Speciality

820759	CTEAB	Thermal Conditioning of Buildings. Bioclimatic Architecture	5	English
820763	AET	Thermal Energy Storage	5	English

Energy Management Speciality

820768	RIEEE	Efficiency and Rehabilitation in Building Energy	5	Spanish
820769	EEI	Industrial Energy Efficiency	5	Spanish

Common elective formation

820734	EQT	Thermal Equipment	5	English
820735	EQE	Electrical Equipment	5	English
240EN22	240EN22	Technological Communication and Entrepreneurship	5	English

Semester 3

Elective subjects

Renewable Energies Speciality

820742	BBC	Biogas and Biofuels	5	English
820743	EFV	Photovoltaic Devices	5	English
820744	ESTM	Solar Thermal Energy	5	English
820748	HPC	Hydrogen and Fuel Cells	5	English
240EN31	240EN31	Biomass and Waste	5	English

Electrical Energy Speciality

820753	QSIRX	Power quality	5	Spat/Eng
820755	XI	Smart Grids	5	English
240206	240EN34	Power Electronics and Electrical Machines Application in Electrical Mobility and Inc	5	English

Thermal Energy Speciality

820758	TETDTM	Experimental Energy Technology	5	English
820760	ETGCFM	Thermal Equipments for Heat and Cold Generation	5	English
820762	TFSA	Turbulence: Phenomenology, Simulation, Aerodynamics	5	English
820764	ICC	Heat Exchangers	5	English
820765	820765	Heat Engines and Combustion	5	Spat/Eng

Energy Management Speciality

240209	240EN36	Data Science Applied to Electrical Energy Systems	5	Spanish
820771	CAPUEE	Control and Automation for the Efficient Use of Energy	5	Spanish
820773	EMGE	Energy Storage	5	Spanish
820774	ESEP	Efficiency in power systems	5	Spanish

Semester 4

820775	TFM-ENER	Master's Thesis	30	Cat/Spa/Eng
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In order to be eligible, the student must take 55 elective credits, of which 30 must correspond to subjects in the selected speciality.