



MASTER'S DEGREE IN ENERGY ENGINEERING
DEGREE PROGRAMME 2025/2026

Course contents are available at this [link](#)

1st year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Applied Electromagnetism in Electrical and Energy Engineering	ING-IND/31	C	6	60
1	Energetics	ING-IND/11	B	6	60
1	Nuclear Reactor Physics	FIS/04	C	5	50
1	Integrated Course: Building Information Modeling and Thermal Hvac Systems - Module: Bim for Energy Plants	ING-IND/11	C	6	60
2	- Module: Thermal Hvac Systems	ING-IND/11	B	6	60
2	Exploration Geophysics	GEO/11	C	6	60
1 - 2	2 courses from tab 1		C	12	120

2nd year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Power Systems Generation and Economics	ING-IND/33	B	9	90
1	Integrated Course: Electrical Energy Management and Electrical Vehicles - Module: Electrical Vehicles	ING-IND/32	B	5	50
2	- Module: Electrical Energy Management	ING-IND/32	B	5	50
1	Integrated Course: Renewable and Industrial Energy Technologies - Module: Advanced Energy Systems	ING-IND/09	B	6	60
2	- Module: Renewable Energy Technologies	ING-IND/09	B	6	60
2	EMC and Power Electronic Energy Conversion	ING-IND/32	B	6	60

Additional credits to be acquired

Sem	Activity	SSD*	TAF*	Credits	h
	Elective activities ¹		D	12	
	Laboratories or internship		F	6	
	English Language Test - B2 or other activities ²		F	3	
	Final Examination		E	15	


TOTAL CREDITS 120

(1) The elective activities must be consistent with the personal educational plan and they need approval by the Degree Programme Board.



- (2) The credits of European language level can be acquired passing the English language test at B2 European level (CEFR) at Centro Linguistico d'Ateneo. If the student can show appropriate certification of B2 European level (CEFR) knowledge other activities could be acquired.

Tab 1. Courses TAF C (3 from the list)

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Automatic Control Systems	ING-INF/04	C	6	60
1	Electrical Machines and Drives	ING-IND/32	C	6	60
2	Environmental Impact Energy Systems	ING-IND/09	C	6	60
2	Integrated Course: Iot Platforms				
2	- Module: Hardware Platforms For IOT	ING-INF/01	C	3	30
2	- Module: Data Processing And Transmission	ING-INF/03	C	3	30
2	Building Energy Performance	ING-IND/11	C	6	60
2	Transportation Planning	ICAR/05	C	6	60
2	Hydrogen Technology and Fuel Cells	ING-IND/27	C	6	60
2	Smart Grid	ING-IND/33	C	6	60
2	Data Driven Models For System Engineering 	ING-IND/31	C	6	60

Other optional activities

Sem	Laboratory	SSD*	TAF*	Credits	h
1	Traffic Simulation Model Laboratory	ICAR/05	F	3	45
1	Dynamic Simulation of Nuclear Fission Reactors	FIS/04	F	1	10
1	Modeling and Simulation of Energy Systems	ING-IND/09	F	3	30
1	Project Management	SECS-P/08	F	4	36
1	Technologies for Energy Efficiency	ING-IND/09	F	3	30
1	Technologies for Energy Production from Nuclear Fusion	ING-IND/31	F	3	30
2	FEM And Multi-Physics Simulation	ING-IND/31	F	3	30
2	Industrial EMC	ING-IND/32	F	2	20
2	Energy Management Systems	ING-IND/32	F	2	20
2	Electrical Energy Management Systems Lab	ING-IND/32	F	2	20
2	Smart Grid Lab	ING-IND/33	F	2	20
2	Energy Systems Optimization	ING-INF/04	F	3	30

The semester could change; check in [Course bulletin](#) of the academic year.

***Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity