



**MASTER'S DEGREE IN ENERGY ENGINEERING
DEGREE PROGRAMME 2026/2027**

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

1st year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Applied Electromagnetism in Electrical and Energy Engineering	IJET-01/A	C	6	60
1	Energetics	IIND-07/B	B	6	60
1	Nuclear Reactor Physics	IIND-07/C	C	5	50
1	Integrated course: Building Information Modeling and Thermal HVAC Systems - Module: BIM-MEP for Energy Plants	IIND-07/B	C	6	60
2	- Module: Thermal HVAC Systems	IIND-07/B	B	6	60
2	Applied Geophysics For Geothermal Exploration	GEOS-04/B	C	6	60

2nd year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Power Systems Generation and Economics	IIND-08/B	B	9	90
1	Integrated course: Electrical Energy Management and Electrical Vehicles - Module: Electrical Vehicles	IIND-08/A	B	5	50
2	- Module: Electrical Energy Management	IIND-08/A	B	5	50
1	Integrated course: Renewable and Industrial Energy Technologies - Module: Advanced Energy Systems	IIND-06/B	B	6	60
2	- Module: Renewable Energy Technologies	IIND-06/B	B	6	60
2	EMC and Power Electronic Energy Conversion	IIND-08/A	B	6	60



Additional credits to be acquired

Sem	Activity	SSD*	TAF*	Credits	h
	2 courses from tab 1		C	12	
	Elective activities ¹		D	12	
	Other activities 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 (2 from the list)

Sem	Insegnamento	SSD	TAF	CFU	Ore
1	Automatic Control Systems	IINF-04/A	C	6	60
2	Environmental Impact Energy Systems	IIND-06/B	C	6	60
	Integrated course: IOT Platforms				
2	- Module: Hardware Platforms For IOT	IINF-01/A	C	3	30
2	- Module: Data Processing and Transmission	IINF-03/A	C	3	30
2	Building Energy Performance	IIND-07/B	C	6	60
2	Electrical Machines and Drives	IIND-08/A	C	6	60
2	Transportation Planning	CEAR-03/B	C	6	60
2	Hydrogen Production and Utilization Technologies	ICHI-02/A	C	6	60
2	Smart Grid	IIND-08/B	C	6	60
2	Data Driven Models for System Engineering 	IIET-01/A	C	6	60



Other optional activities

Sem	Laboratories	SSD*	TAF*	Credits	h
1	Traffic Simulation Model Laboratory	CEAR-03/B	F	3	45
1	Dynamic Simulation of Nuclear Fission Reactors	IIND-07/C	F	1	10
1	Modeling and Simulation of Energy Systems	IIND-06/B	F	3	30
1	Project Management	ECON-07/A	F	4	36
1	Technologies for Energy Efficiency	IIND-06/B	F	3	30
1	Technologies for Energy Production from Nuclear Fusion	IJET-01/A	F	3	30
2	FEM and Multi-Physics Simulation	IJET-01/A	F	3	30
2	Industrial EMC	IIND-08/A	F	2	20
2	Energy Management Systems	IIND-08/A	F	2	20
2	Electrical Energy Management Systems Lab	IIND-08/A	F	2	20
2	Smart Grid Lab	IIND-08/B	F	2	20
2	Energy Systems Optimization	IINF-04/A	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