



**BACHELOR'S DEGREE IN
ELECTRICAL ENERGY ENGINEERING FOR SUSTAINABLE DEVELOPMENT
DEGREE PROGRAMME 2025/2026**

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

1st year

Teaching course	SSD*	TAF*	Credits	h
Mathematical Analysis 1	MAT/05	A	9	90
Chemistry	CHIM/07	A	6	60
Physics 1	FIS/01	A	8	80
Integrated Course: Fundamentals of Digital Technologies				
- Module: Sustainable Regional and Urban Planning	ICAR/20	C	5	50
- Module: Communication Networks	ING-INF/03	C	6	60
Fundamentals of Computer Science	ING-INF/05	A	6	60
Geometry and Algebra	MAT/03	A	7	70
Physics 2	FIS/01	A	7	70

2nd year

Teaching course	SSD*	TAF*	Credits	h
Mathematical Analysis 2	MAT/05	A	8	80
Fundamentals on Automatic Control	ING-INF/04	B	9	90
Integrated Course: Electrotechnics				
- Module: Circuit Theory	ING-IND/31	B	8	80
- Module: Applied Electromagnetism	ING-IND/31	B	5	50
Integrated Course: Fundamentals of Energy Sustainability				
- Module: Applied Thermodynamics	ING-IND/11	B	6	60
- Module: Principles of Sustainable Mobility	ICAR/05	C	5	50
Measurements and Instrumentation	ING-INF/07	B	6	60
<i>Choose among:</i>				
Integrated Course: IoT Platforms				
- Module: Hardware Platforms for IoT	ING-INF/01	C	3	30
- Module: Data Processing and Transmission	ING-INF/03	C	3	30
Machine learning and data mining	ING-INF/05	C	6	60
Microcontroller-Based Systems	ING-INF/01	C	6	60
Materials Technology	ING-IND/22	C	6	60



3rd year

Teaching course	SSD*	TAF*	Credits	h
Power Electronics	ING-IND/32	B	6	60
Measurements on Power Systems	ING-INF/07	B	6	60
Sustainable Energy Technologies and Systems	ING-IND/09	B	9	90
Integrated Course: Smart Power Systems for Energy Transition				
- Module: Fundamentals of Electric Power Systems	ING-IND/33	B	5	50
- Module: Smart Grid For Electric Power Distribution	ING-IND/33	B	5	50
Integrated Course: Conversion Devices for Sustainable Energy				
- Module: Electrical Machines	ING-IND/32	B	5	50
- Module: Electrical Drives	ING-IND/32	B	5	50
Integrated Course: Sustainable Energy Development				
- Module: Energy: Markets and Regulation	ING-IND/33	B	5	50
- Module: Energy carrier and storage systems	ING-IND/32	B	5	50

Additional credits to be acquired

Activity	SSD*	TAF*	Credits	h
English Language Test - B1 ¹		E	3	
Elective activities ²		D	12	
Other activities		F	2	
Final Exam		E	5	

TOTAL CREDITS 180

- 1) The credits of European language level can be acquired:
 - passing the English language test at B1 European level (CEFR) at Centro Linguistico d'Ateneo,
 - showing appropriate certification of B1 European level (CEFR) knowledge.
- (2) The elective activities must be consistent with the personal educational plan and they need approval by the Degree Programme Board.

Other optional activities:

Laboratory	SSD*	TAF*	Credits	h
Renewable Energy Conversion and Energy Storage Lab	ING-IND/32	F	2	20
Lv Electrical Installation Design Lab	ING-IND/33	F	2	20
Electrical Circuits Hardware and Software Lab	ING-IND/31	F	2	20

***Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity