



MASTER'S (LM) DEGREE COURSE IN

ENERGY ENGINEERING

Study programme for students enrolled in the academic year 2025-2026

1st YEAR		
MANDATORY UNITS	CREDITS	
APPLIED ENERGY	9	
ENERGY SYSTEMS	9	
MEASUREMENTS AND INSTRUMENTATION	9	
COMBUSTION	6	
HEAT TRANSFER AND THERMOFLUID DYNAMICS	9	
ELECTRIC POWER SYSTEMS	9	
2nd YEAR		
MANDATORY UNITS	CREDITS	
RENEWABLE ENERGY TECHNOLOGIES	9	
ENERGY ECONOMICS	9	
FREE-CHOICE UNITS AMONG THE FOLLOWING (15 CREDITS - “attività caratterizzanti”):		
UNITS	CREDITS	PROFILE
PROCESS TECHNOLOGIES FOR CARBON-NEUTRAL FUELS	6	G
COGENERATION AND COMBINED PLANTS	6	G
NUCLEAR FISSION AND FUSION PLANTS	9	G
GREEN POWER CONVERSION AND UTILIZATION	6	G/U
WIND AND HYDRAULIC TURBINES	9	G
HEATING VENTILATION AND AIR CONDITIONING SYSTEMS	9	U
ENERGY AND BUILDINGS	6	U
REFRIGERATION AND HEAT PUMP TECHNOLOGY	9	U
ADDITIONAL FREE-CHOICE CREDITS (15 CREDITS - including free-choice units reported above and not already selected; including maximum two laboratories)		
UNITS	CREDITS	PROFILE
ADVANCED CONTROL SYSTEMS	6	G/U

PHOTOVOLTAIC SCIENCE AND TECHNOLOGY	6	G
DESIGN AND OPTIMIZATION OF SUSTAINABLE ENERGY SYSTEMS	6	G
APPLIED ACOUSTIC AND DESIGN FOR PRODUCT SOUND QUALITY	6	G/U
MANUFACTURING TECHNOLOGY	6	G/U
SUSTAINABLE TECHNOLOGIES FOR HYDROGEN	6	G/U
ENERGY STORAGE TECHNOLOGIES FOR SUSTAINABLE ENERGY SYSTEMS	6	G/U
LABORATORIES	CREDITS	PROFILE
LABORATORY OF APPLIED THERMODYNAMICS	3	G
LABORATORY OF COMPUTATIONAL THERMO-FLUID DYNAMICS	3	G/U
LABORATORY OF ENERGY AUDIT	3	U
URBAN ENERGY PLANNING	3	G/U
	CREDITS	
ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)	3	
FINAL THESIS	18	

ANY FURTHER NOTES

Attendance requirement: Although not mandatory, classroom attendance is strongly recommended. There are no propaedeutic units for attending second-year activities.

The Master's degree course proposes two profiles:

- Sustainable power generation **G**
- Sustainable energy utilization **U**

However, profiles represent only a guideline and it is not mandatory to follow any profile when submitting the study plan.

If the additional free-choice activities are chosen from those offered by the degree course, the study plan will be automatically approved.

Students are required to submit their study plan through the UNIWEB platform as early as the first enrolment year.

This document was prepared in Spring 2025. Therefore, it is strongly recommended to check, at the beginning of each academic year, the correct placement of the course units in the semesters and the activation of the free-choice activities.