



**MASTER (LM) DEGREE COURSE IN
SUSTAINABLE CHEMISTRY AND TECHNOLOGIES FOR CIRCULAR ECONOMY**

Curriculum Resources and product design and recycling

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

1st YEAR	
MANDATORY UNITS	CREDITS
GREEN CHEMISTRY AND INNOVATIVE CHEMICAL PROCESS	9
RENEWABLE ENERGY TECHNOLOGIES	6
WATER RESOURCES MANAGEMENT IN THE CIRCULAR ECONOMY	6
CIRCULAR AND SUSTAINABLE WASTE MANAGEMENT	9
THERMODYNAMICS AND CATALYSIS FOR CIRCULAR ECONOMY (C. I. MOD. A + MOD. B / THERMODYNAMICS OF PROCESSES AND MATERIALS MOD. A + CATALYSIS FOR CIRCULAR ECONOMY MOD. B)	12
OPERATIONS AND SUPPLY CHAIN MANAGEMENT	6
EUROPEAN UNION ENVIRONMENTAL AND ENERGY LAW	6
ECONOMICS FOR THE CIRCULAR ECONOMY	6
2nd YEAR	
MANDATORY UNITS	CREDITS
MATERIALS DESIGN AND SELECTION FOR CIRCULAR ECONOMY	9
SUSTAINABLE MATERIALS AND RECYCLING FOR CIRCULAR ECONOMY (C. I. MOD. A + MOD. B + MOD. C/ SUSTAINABLE MINERAL GEO-RESOURCES AND CRITICAL RAW MATERIALS (CRM) MOD. A + RECYCLING AND TRANSFORMATION OF INORGANIC MATERIALS MOD. B + NEW PLASTICS ECONOMY: POLYMERS, BIOPOLYMERS AND THEIR RECYCLING MOD. C)	18
CIRCULARITY IN BIOMASS PRODUCTIONS	6
12 ADDITIONAL FREE-CHOICE CREDITS	12
FINAL THESIS/DISSERTATION	15
OPTIONAL UNIT	
CIRCULAR ECONOMY SUMMER SCHOOL	5

ANY FURTHER NOTES

- Attendance requirement: according to the didactic regulation of the degree course, attendance is recommended but not mandatory for lessons, but it is mandatory for laboratories for 100% of the hours
- in the educational offer of the Master degree course in Sustainable Chemistry and Technologies for the Circular Economy, some teachings have been introduced specifically for free-choice, shown in the table below, whose contents are certainly consistent with the educational path
- free-choice credits can be chosen among the university's educational offer as long as they are consistent with the educational path
- * = held in English

FREE-CHOICE UNITS	CREDITS
HEALTH AND ENVIRONMENT IN CIRCULAR ECONOMY	6
PSYCHOLOGY, POLICY MAKING AND EDUCATION TO A CIRCULAR ECONOMY	6
SYNTHETIC BIOTECHNOLOGY	6
UNDERSTANDING STATISTICS OF CIRCULAR ECONOMY	6

MASTER (LM) DEGREE COURSE IN
SUSTAINABLE CHEMISTRY AND TECHNOLOGIES FOR CIRCULAR ECONOMY
Curriculum Energy conversion and storage
Study programme for students enrolled in the academic year 2025-2026

1st YEAR	
MANDATORY UNITS	credits
GREEN CHEMISTRY AND INNOVATIVE CHEMICAL PROCESS	9
RENEWABLE ENERGY TECHNOLOGIES	6
WATER RESOURCES MANAGEMENT IN THE CIRCULAR ECONOMY	6
CIRCULAR AND SUSTAINABLE WASTE MANAGEMENT	9
THERMODYNAMICS AND CATALYSIS FOR CIRCULAR ECONOMY (C. I. MOD. A + MOD. B / THERMODYNAMICS OF PROCESSES AND MATERIALS MOD. A + CATALYSIS FOR CIRCULAR ECONOMY MOD. B)	12
OPERATIONS AND SUPPLY CHAIN MANAGEMENT	6
EUROPEAN UNION ENVIRONMENTAL AND ENERGY LAW	6
ECONOMICS FOR THE CIRCULAR ECONOMY	6
2nd YEAR	
MANDATORY UNITS	credits
BIOREFINERIES AND SUSTAINABLE ENERGY PRODUCTION AND STORAGE FOR CIRCULAR ECONOMY	15
SUSTAINABILITY STRATEGIES AND ENERGY ECONOMICS (C. I. MOD. A + MOD. B / SUSTAINABILITY STRATEGIES AND INNOVATION MANAGEMENT MOD. A + ENERGY ECONOMICS MOD. B)	12
LIFE CYCLE ASSESSMENT	6
12 ADDITIONAL FREE-CHOICE CREDITS	12
FINAL THESIS/DISSERTATION	15
OPTIONAL UNIT	
CIRCULAR ECONOMY SUMMER SCHOOL	5

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- Attendance requirement: according to the didactic regulation of the degree course, attendance is recommended but not mandatory for lessons, but it is mandatory for laboratories for 100% of the hours
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PSYCHOLOGY, POLICY MAKING AND EDUCATION TO A CIRCULAR ECONOMY	6
SYNTHETIC BIOTECHNOLOGY	6
UNDERSTANDING STATISTICS OF CIRCULAR ECONOMY	6