



**BACHELOR'S DEGREE IN
CHEMICAL ENGINEERING FOR INNOVATION AND PROCESS SUSTAINABILITY
DEGREE PROGRAMME 2026/27**

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

1st year

Sem	Teaching course	SSD*	TAF*	Credits	h
Common courses					
1	Mathematical Analysis 1	MATH-03/A	A	9	90
1	Chemistry 1	CHEM-06/A	A	9	90
2	Physics 1	PHYS-03/A	A	8	80
2	Geometry and Algebra	MATH-02/B	A	7	70
2	Chemistry 2	CHEM-06/A	A	6	60
Curriculum Renewable resources					
1	Chemistry Laboratory	CHEM-06/A	F	3	30
2	Elements of Chemical Engineering of Renewable Sources	ICHI-01/B	F	3	30
Curriculum Materials					
1	Introduction to Materials Science	IMAT-01/A	F	3	30
2	Laboratory of Materials Science	IMAT-01/A	F	3	30
Curriculum Food Engineering					
1	Chemistry Laboratory	CHEM-06/A	F	3	30
2	Elements of Food Engineering	ICHI-01/B	F	3	30

2nd year

Sem	Teaching course	SSD*	TAF*	Credits	h
Common courses					
1	Mathematical Analysis 2	MATH-03/A	A	8	80
1	Physics 2	PHYS-03/A	A	7	70
1	Integrated course: Numerical Analysis and Applications to Chemical Engineering				
	- Module: Applied Mathematics	MATH-05/A	A	6	60
2	- Module: Process Engineering Calculations	ICHI-01/C	B	6	60
2	Thermodynamics	ICHI-01/B	B	9	90
2	Transport Phenomena	ICHI-01/B	B	6	60



2	Chemical Reaction Engineering	ICHI-01/B	B	6	60
Curriculum Renewable resources					
1	Fluid Mechanics	CEAR-01/A	C	9	90
Curriculum Materials					
1	Basic Solid Mechanics	CEAR-06/A	C	6	60
Curriculum Food Engineering					
1	Fluid Mechanics	CEAR-01/A	C	9	90

3rd year

Sem	Teaching course	SSD*	TAF*	Credits	h
Common courses					
1	Chemical Plant Design	ICHI-02/A	B	9	90
1	Electrotechnics	IJET-01/A	B	6	60
2	Economic and Management Sustainability	IEGE-01/A	B	6	60
2	Automatic Control in Process Industries	ICHI-01/C	B	9	90
Curriculum Renewable resources					
1	Materials Science Fundamentals	IMAT-01/A	B	6	60
1	Sustainable Energy Technologies and Systems	IIND-06/B	C	9	90
2	Renewable Resource Production Processes	ICHI-02/B	B	9	90
Curriculum Materials					
1-2	Metallic Materials Engineering	IMAT-01/A	B	9	90
1	Integrated course: Materials design and development - Module: Materials Science Fundamentals	IMAT-01/A	B	6	60
1-2	- Module: Applied Technologies	IMAT-01/A	C	6	60
2	Polymers Science	CHEM-04/A	C	6	60
Curriculum Food Engineering					
1	Integrated course: Food Chemistry and Engineering - Module: Food Engineering	ICHI-01/B	B	6	60
1	- Module: Food Chemistry	CHEM-07/B	C	6	48
2	Industrial Systems Design	IIND-05/A	B	6	60
2	Integrated course: Microbiology and Hygiene - Module: Microbiology	BIOS-15/A	C	4	40
2	- Module: Methods of Food Hygiene	MEDS-24/B	C	2	24



Additional credits to be acquired

Sem	Activity	SSD*	TAF*	Credits	h
	English Language Test - B1 ¹		E	3	
	Elective activities ²		D	12	
	Other activities		F	6	
	Final Exam		E	3	

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

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.

***Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity