



**MASTER'S DEGREE IN
CHEMICAL AND BIOTECHNOLOGICAL PROCESS ENGINEERING
DEGREE PROGRAMME 2026/27**

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

1st year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Principles of Chemical Engineering and Processes	ICHI-01/B	B	9	90
1	Applied Statistics for Industrial Engineering	ICHI-01/C	B	9	90
2	Integrated course: Industrial and Energetic Processes				
	- Module: Industrial Processes	ICHI-02/B	B	6	60
2	- Module: Energetic Processes	ICHI-02/B	B	6	60
2	Environmental Conscious Energy and Chemical Processes	ICHI-02/A	B	9	90

2nd year

Sem	Teaching course	SSD*	TAF*	Credits	h
1	Process modeling and simulation 	ICHI-01/C	B	9	90
1	Chemical and Biological Reactors 	ICHI-01/B	B	9	90
1	Integrated course: Safety and environmental chemical engineering with design project 				
	- Modulo: Safety and Reliability of Chemical Processes	ICHI-02/A	B	6	60
2	- Modulo: Environmental Chemical Engineering	ICHI-02/A	B	6	60
2	Advanced systems of process control 	ICHI-01/C	B	9	90

Additional credits to be acquired

Sem	Activity	SSD*	TAF*	Credits	h
	2 courses from tab 1		C	12	
	Elective activities ¹		D	9	
	English Language Test - B2 or other activities ²		F	3	
	Internship		F	6	
	Final Examination		E	12	

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	Teaching course	SSD*	TAF*	Credits	h
1	Fundamentals of Machine Design	IIND-03/A	C	6	
1	Industrial Energy Technologies	IIND-06/B	C	6	
1	Biochemistry	BIOS-07/A	C	6	
1	Project management	ECON-07/A	C	6	
1	Applied Thermodynamics	IIND-07/B	C	6	
1	Surface Forces and Adsorption 	CHEM-02/A	C	6	
1	Machine learning for chemical and biochemical engineer 	ICHI-01/C	C	6	
2	Bioengineering of Tissue-Organ Systems and Artificial Organs	ICHI-01/B	C	6	
2	Nanotechnology for Diagnostic and Therapeutic Applications	CHEM-06/A	C	6	
2	Chemistry and Technology of Food	CHEM-07/B	C	6	
2	Microbiology	MEDS-03/A	C	6	

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

***Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity