



# UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: null

A.Y. 2013/2014

## DEGREE COURSE IN CHEMICAL ENGINEERING

### Characteristics



Class of Master's Degree  
(MSc) on Chemical  
Engineering (LM-22)



2 YEARS



PALERMO



FREE ACCESS



2025

### Educational objectives

The 2nd cycle degree course aims at providing advanced knowledge in the area of traditional Chemical engineering, as well as advanced competences enabling graduates to interact with other advanced sectors in the field of scientific and technological innovation.

The course will therefore provide for mandatory and elective courses, related to applied kinetics and chemical reactors, safety and process optimization, equipment design, science and technology of materials, which are functional to the acquisition of useful knowledge tools for the design and management of traditional as well as innovative chemical processes.

Individual courses aim at providing basic knowledge with respect to those sectors which represent the trends in the development of chemical engineering, in close synergy with other disciplines, such as nanotechnologies, biotechnologies, energetics and environment.

Subjects as Machines and Electrical Engineering will also be taught, to provide soft industrial engineering skills which are in synergy with professional chemical engineering skills, functional to job placement.

The course will also provide for other educational activities, with particular emphasis on advanced seminars, both in traditional chemical engineering and in innovative technologies.

The natural completion of such educational programme is an extensive work for the experimental dissertation, awarded with at least 18 credits.

### Professional opportunities

Professional opportunities for 2nd cycle chemical engineers are characterised by high flexibility.

Based on the acquired competences and on the knowledge and capability of interpreting complex chemical engineering issues, graduates of this course will find professional opportunities in the chemical, food technology, pharmaceutical and make up sectors, in the production and transformation of materials, in industrial laboratories and in technical facilities of the public administration.

### Final examination features

The degree course should end with an important design or research work, corresponding to 30 credits. The final dissertation should demonstrate the candidate's command of subjects as well as his/her capability of working autonomously and good communication skills. The dissertation may be related to theoretical design studies or experimental research on advanced chemical engineering topics, with respect in particular to innovative issues.

Subjects 1 <sup>o</sup> year	CFU	Sem.	Val.	SSD	TAF
08300 - BIOCHEMICAL PLANTS <i>Brucato(PO)</i>	9	1	V	ING-IND/25	B
01914 - INDUSTRIAL CHEMISTRY <i>Galia(PO)</i>	12	1	V	ING-IND/27	B
02939 - APPLIED ELECTROCHEMISTRY <i>Di Quarto(CU)</i>	9	2	V	ING-IND/23	C
01883 - APPLIED PHYSICAL CHEMISTRY <i>Piazza(PO)</i>	9	2	V	ING-IND/23	C

Legenda: Per. = periodo o semestre, Val. = Valutazione (V=voto, G=giudizio), TAF= Tipologia Attività Formativa (A=base, B=caratterizzante, C=Affine, S=stages, D=a scelta, F=altre)

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
07871 - MACHINES <i>Beccari(PA)</i>	9	2	V	ING-IND/08	C
Optional subjects	6				C
Optional subjects II	6				B
Stage and others	3				F
	<b>63</b>				

Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
12661 - PROCESS CONTROL 1 <i>Galluzzo(CU)</i>	9	1	V	ING-IND/26	B
07417 - THEORY OF DEVELOPMENT OF CHEMICAL PROCESSES <i>Micale(PO)</i>	12	1	V	ING-IND/26	B
05917 - FINAL EXAMINATION	24	2	G		E
Free subjects	12				D
	<b>57</b>				

### OPTIONAL SUBJECTS

Stage and others	CFU	Sem.	Val.	SSD	TAF
14507 - CAD LABORATORY	3	1	G		F
01372 - COMPUTER SCIENCE APPLICATIONS	3	1	G		F
07899 - PROFESSIONAL PRACTICE	3	1	G		F
Optional subjects	CFU	Sem.	Val.	SSD	TAF
16987 - CHEMICAL FOUNDATIONS OF BIO- AND NANO-TECHNOLOGIES <i>Dispenza(PO)</i>	6	2	V	CHIM/07	C
02831 - CONSTRUCTIONAL ELEMENTS OF MACHINES <i>Virzi' Mariotti(CU)</i>	6	1	V	ING-IND/14	C
02213 - CORROSION AND PROTECTION OF METALLIC MATERIALS <i>Piazza(PO)</i>	6	1	V	ING-IND/23	C
09115 - MATERIALS FOR ENERGY ACCUMULATION AND TRANSFORMATION <i>Santamaria(PO)</i>	6	2	V	ING-IND/23	C
Optional subjects II	CFU	Sem.	Val.	SSD	TAF
06205 - CHEMICAL REACTORS <i>Augugliaro(PO)</i>	6	1	V	ING-IND/24	B
16406 - POLYMERIC AND COMPOSITE MATERIALS <i>Piccarolo(CU)</i>	6	2	V	ING-IND/22	B
07298 - POLYMERS TECHNOLOGY <i>La Mantia(PQ)</i>	6	2	V	ING-IND/22	B
13655 - PROCESS CONTROL 2 <i>Galluzzo(CU)</i>	6	2	V	ING-IND/26	B
10069 - PROCESS DESIGN <i>Cipollina(PO)</i>	6	2	V	ING-IND/26	B
07340 - SPECIAL CHEMICAL TECHNOLOGIES <i>Filardo(PQ)</i>	6	2	V	ING-IND/27	B

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