



UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: null

A.Y. 2010/2011

DEGREE COURSE IN CHEMICAL ENGINEERING

Characteristics



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



2 YEARS



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 candidates 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

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
06205 - CHEMICAL REACTORS <i>Augugliaro(PO)</i>	9	Ann.	V	ING-IND/24	B

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
02831 - CONSTRUCTIONAL ELEMENTS OF MACHINES <i>Cerniglia(PA)</i>	6	Ann.	V	ING-IND/14	C
06328 - SCIENCE AND TECHNOLOGY OF MATERIALS <i>Piccarolo(CU)</i>	9	Ann.	V	ING-IND/22	B
02939 - APPLIED ELECTROCHEMISTRY <i>Di Quarto(CU)</i>	9	Ann.	V	ING-IND/23	C
01886 - PHYSICAL CHEMISTRY OF SOLID MATERIALS <i>Piazza(PO)</i>	6	Ann.	V	ING-IND/23	C
12659 - UNIT OPERATIONS AND SAFETY FOR THE CHEMICAL INDUSTRY <i>Grisafi(PA)</i>	9	Ann.	V	ING-IND/25	B
Stage and others	3				X
Free subjects (suggested)	6				D

57

Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
01914 - INDUSTRIAL CHEMISTRY <i>Galia(PO)</i>	9	Ann.	V	ING-IND/27	B
12661 - PROCESS CONTROL 1 <i>Galluzzo(CU)</i>	9	Ann.	V	ING-IND/26	B
07417 - THEORY OF DEVELOPMENT OF CHEMICAL PROCESSES <i>Micale(PO)</i>	9	Ann.	V	ING-IND/26	B
05917 - FINAL EXAMINATION	30	Ann.	G		E
Free subjects (suggested) II	6				D

63

OPTIONAL SUBJECTS

Stage and others	CFU	Sem.	Val.	SSD	TAF
14507 - CAD LABORATORY	3	Ann.	G		X
01372 - COMPUTER SCIENCE APPLICATIONS	3	Ann.	G		X
07899 - PROFESSIONAL PRACTICE	3	Ann.	G		X
Free subjects (suggested)	CFU	Sem.	Val.	SSD	TAF
15073 - CHEMICAL TRAITS OF BIO- NANOTECHNOLOGIES	6	Ann.	V		D
02213 - CORROSION AND PROTECTION OF METALLIC MATERIALS	6	Ann.	V		D
10067 - ELEMENTS OF BIOCHEMICAL ENGINEERING <i>La Carrubba(PA)</i>	6	Ann.	V		D
10074 - MICROTECHNOLOGIES	6	Ann.	V		D
10066 - PHOTOELECTROCHEMISTRY <i>Di Quarto(CU)</i>	6	Ann.	V		D
07298 - POLYMERS TECHNOLOGY <i>La Mantia(PQ)</i>	6	Ann.	V		D
12660 - PRINCIPLES OF MATERIAL MECHANICS	6	Ann.	V		D
13655 - PROCESS CONTROL 2 <i>Cosenza(PC)</i>	6	Ann.	V		D
10069 - PROCESS DESIGN <i>Cipollina(PO)</i>	6	Ann.	V		D
07340 - SPECIAL CHEMICAL TECHNOLOGIES <i>Galia(PO)</i>	6	Ann.	V		D

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)

OPTIONAL SUBJECTS

Free subjects (suggested)	CFU	Sem.	Val.	SSD	TAF
10068 - TREATMENT PROCESSES OF INDUSTRIAL WASTEWATERS <i>Scialdone(PO)</i>	6	Ann.	V		D
Free subjects (suggested) II	CFU	Sem.	Val.	SSD	TAF
15073 - CHEMICAL TRAITS OF BIO-NANOTECHNOLOGIES	6	Ann.	V		D
02213 - CORROSION AND PROTECTION OF METALLIC MATERIALS	6	Ann.	V		D
10067 - ELEMENTS OF BIOCHEMICAL ENGINEERING <i>La Carrubba(PA)</i>	6	Ann.	V		D
10074 - MICROTECHNOLOGIES	6	Ann.	V		D
10066 - PHOTOELECTROCHEMISTRY <i>Di Quarto(CU)</i>	6	Ann.	V		D
07298 - POLYMERS TECHNOLOGY <i>La Mantia(PQ)</i>	6	Ann.	V		D
12660 - PRINCIPLES OF MATERIAL MECHANICS	6	Ann.	V		D
13655 - PROCESS CONTROL 2 <i>Cosenza(PC)</i>	6	Ann.	V		D
10069 - PROCESS DESIGN <i>Cipollina(PO)</i>	6	Ann.	V		D
07340 - SPECIAL CHEMICAL TECHNOLOGIES <i>Galia(PO)</i>	6	Ann.	V		D
10068 - TREATMENT PROCESSES OF INDUSTRIAL WASTEWATERS <i>Scialdone(PO)</i>	6	Ann.	V		D

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)