UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Engineering

A.Y. 2014/2015

DEGREE COURSE IN CHEMICAL ENGINEERING

- PROCESS CHEMICAL ENGINEERING -

Characteristics

Class of Master's Degree (MSc) on Chemicl 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.
Typical industrial engineering subjects, such as Machines and Machine elements will also be taught, which are in synergy with professional chemical engineering skills, and functional to job placement.
The course also provides 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 24 credits.

Professional opportunities

Chemical engineers may find professional opportunities in the chemical, food, pharmaceutical industry, in material production and processing companies, industrial laboratories, technical units of the public administration and engineering companies

Final examination features

The degree course should end with an important design or research work, corresponding to minimum 18 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 ° year	CFU	Sem.	Val.	SSD	TAF
17578 - BIOCHEMICAL PLANT DESIGN *Brucato(PO)*	9	1	V	ING-IND/25	B
06205 - CHEMICAL REACTORS *Loddo(PA)*	9	1	V	ING-IND/24	B
00478 - INDUSTRIAL CHEMISTRY *Galia(PO)*	9	1	V	ING-IND/27	B
17559 - APPLIED PHYSICAL CHEMISTRY *Piazza(PO), Inguanta(PA)*	9	2	V	ING-IND/23	C
07871 - MACHINES *Beccari(PA)*	9	2	V	ING-IND/08	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
Optional subjects	6				B
Stage and others	3				F
Free subjects	6				D
	60				

Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
17562 - CONCEPTUAL DESIGN OF CHEMICAL PROCESSES + CHEMICAL PROCESS CONTROL - INTEGRATED COURSE	18	1	V		
- CHEMICAL PROCESS CONTROL *Galluzzo(CU)*	*9*	*1*		*ING-IND/26*	*B*
- CONCEPTUAL DESIGN OF CHEMICAL PROCESSES *Micale(PO)*	*9*	*1*		*ING-IND/26*	*B*
02831 - CONSTRUCTIONAL ELEMENTS OF MACHINES *Virzi' Mariotti(CU)*	6	1	V	ING-IND/14	C
16079 - SAFETY MANAGEMENT *Grisafi(PA)*	6	2	V	ING-IND/25	B
05917 - FINAL EXAMINATION	24	2	G		E
Free subjects II	6				D
	60				

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**
01817 - APPLIED CHEMISTRY FOR ENVIRONMENTAL PROTECTION *Scaffaro(PO)*	6	2	V	ING-IND/22	B
17577 - CHEMICAL AND BIOCHEMICAL TECHNOLOGY *Galia(PO)*	6	2	V	ING-IND/27	B
17576 - CHEMICAL PROCESS CONTROL II *Galluzzo(CU)*	6	2	V	ING-IND/26	B
17579 - COMBUSTION *Caputo(PA)*	6	2	V	ING-IND/25	B
17580 - INDUSTRIAL POLYMERIZATION PROCESSES *Galia(PO)*	6	2	V	ING-IND/27	B
17581 - MATERIALS AND PROCESSES FOR TISSUE ENGINEERING *La Carrubba(PA)*	6	2	V	ING-IND/22	B

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