



# UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Engineering

A.Y. 2014/2015

## DEGREE COURSE IN MANAGEMENT ENGINEERING

### Characteristics



Class of Bachelor's Degree (BSc) on Industrial engineering (L-9)



3 YEARS



PALERMO



PLANNED ACCESS



2094

### Educational objectives

The growing complexity and dynamicity of the competitive system, in the age of globalisation and knowledge requires a new type of professionals, capable of facing issues in an interdisciplinary, flexible and innovative way. Management engineers are an answer to the needs of new markets, and they are always more appreciated and required both by companies and by public administrations.

Management engineering deals with the solution of technical, economical, operational and organisational problems in the processes of production and consumption of goods and services, through the use of solving methods and capabilities which are typical of engineering. Management engineers, in their activity, use the quantitative tools, decision supports and methodological rigour typical of engineering sciences, aiming at optimizing solutions. The engineering vision and method applied to managerial and organisational issues enable the achievement of a higher efficiency and effectiveness level of solutions, contribute to a better understanding of business phenomena, facilitate the identification and control of the most significant decisional variables in various business processes, set the bases for the continuous improvement of business outcomes based on measurable parameters and, eventually, are suitable to build well structured relations among the various business functions and among companies. The education of an operational engineer is based upon a sound grounding in disciplines such as mathematics, physics, economics, statistics, operations research, computer science as well as upon the planning capabilities typical of the most important engineering disciplines. Among these latter, particularly important are the disciplines related to the sectors of processing technologies and systems, of industrial plants and economic-operational engineering.

The degree course in Management Engineering of the University of Palermo has got a well-established tradition in the field of Operational Engineering; actually, the Degree Course in Industrial Technologies with Economic-Organisational specialisation was started in Palermo in 1980, and subsequently transformed into the Degree Course in Operational Engineering.

The 1st cycle Degree Course is not divided in curricula or specialisations; it possess a strong matrix based upon production and logistics management, in accordance with the history and tradition of operational Engineering in Palermo.

The 1st cycle Degree Course is focused on the principles of functioning, design and modelling of production and logistic systems, upon their technological groundings, with the due attention to the relevant economical aspects. The Degree Course sets the bases for the quantitative and economical analysis of production processes of goods and services, providing knowledge and professional know how for the management, implementation and improvement of these processes.

The Degree course is divided into 4 blocks of subjects:

- Core engineering disciplines: mathematical analysis and geometry (Calculus I and II), Physics (Physics I and II), and Chemistry;
- Core educational disciplines of operational engineering: Economics, Business economics, Statistics, Operation research, business information systems;
- Core industrial engineering disciplines industrial design, electrical engineering, technical physics and construction theory;
- Characterising disciplines: mechanic technology, general technologies of materials, industrial production management, quality management and product design, industrial plants.

### Professional opportunities

Junior management engineers may find employment in manufacturing companies, consulting, public services and utilities, healthcare, banks and in various job positions.

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)

**Final examination features**

Students must prepare and discuss a degree dissertation, awarded with 3 credits. The Board of the Degree Course has approved, on 13 February 2013 the final examination regulations, in accordance with the decision of the Academic Senate, session of 06/11/2012.

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
01238 - CALCULUS <i>Pavone(PA)</i>	12	1	V	MAT/05	A
03675 - GEOMETRY <i>Lattuca(PC)</i>	6	1	V	MAT/03	A
06502 - MANAGEMENT INFORMATION SYSTEMS <i>Gambino(RU)</i>	6	1	V	ING-INF/05	C
04677 - ENGLISH LANGUAGE	3	1	G		E
01788 - CHEMISTRY <i>Alessi(PA)</i>	9	2	V	CHIM/07	A
02605 - COMPUTER AIDED DESIGN <i>Mancuso(PO)</i>	9	2	V	ING-IND/15	B
15540 - PHYSICS I <i>Raso(PO)</i>	9	2	V	FIS/03	A

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Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
07353 - GENERAL TECHNOLOGIES OF MATERIALS <i>Barcellona(PA)</i>	6	1	V	ING-IND/16	B
06313 - MECHANICS OF MATERIALS AND THEORY OF STRUCTURES <i>Spada(PA)</i>	9	1	V	ICAR/08	B
07870 - PHYSICS II <i>Abbene(PA)</i>	6	1	V	FIS/01	A
03318 - TECHNICAL PHYSICS <i>La Rocca(CU)</i>	6	1	V	ING-IND/10	C
02795 - ECONOMICS FOR ENGINEERS <i>Abbate(RU)</i>	9	2	V	ING-IND/35	B
02965 - ELECTRICAL DEVICES AND CIRCUITS <i>Viola(PA)</i>	6	2	V	ING-IND/31	C
06644 - STATISTICS <i>Lombardo(PO)</i>	9	2	V	SECS-S/02	A
Free subjects	12				D

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Subjects 3 ° year	CFU	Sem.	Val.	SSD	TAF
03867 - INDUSTRIAL PLANTS <i>Galante(PQ)</i>	9	1	V	ING-IND/17	B
07324 - MECHANICAL TECHNOLOGY <i>Di Lorenzo(PO)</i>	9	1	V	ING-IND/16	B
16087 - QUALITY MANAGEMENT AND PRODUCT DEVELOPMENT	12	1	V		
- PRODUCT DEVELOPMENT <i>Di Lorenzo(PO)</i>	6	1		ING-IND/16	B
- QUALITY MANAGEMENT <i>Passannanti(PO)</i>	6	1		ING-IND/16	B
02704 - BUSINESS ECONOMICS <i>Abbate(RU)</i>	9	2	V	ING-IND/35	B
06263 - OPERATIONS RESEARCH <i>Bauso(PA)</i>	9	2	V	MAT/09	A

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Subjects 3 <sup>o</sup> year	CFU	Sem.	Val.	SSD	TAF
03724 - PRODUCTION & OPERATIONS MANAGEMENT <i>La Commare(PO)</i>	9	2	V	ING-IND/17	B
05917 - FINAL EXAMINATION	3	2	G		E
Stage and others	3				F
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### OPTIONAL SUBJECTS

Stage and others	CFU	Sem.	Val.	SSD	TAF
11034 - OTHER EDUCATIONAL ACTIVITIES - 1 CREDIT	1	1	G		F
11035 - OTHER EDUCATIONAL ACTIVITIES - 2 CREDITS	2	1	G		F
11036 - OTHER EDUCATIONAL ACTIVITIES - 3 CREDITS	3	1	G		F
07899 - PROFESSIONAL PRACTICE	3	1	G		F

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