

MASTER COURSE IN MANAGEMENT AND INDUSTRIAL SYSTEMS ENGINEERING (LM 31) - A.A. 2025/2026

A2) Curriculum Management and Digitalization

FIRST YEAR											
FIRST SEMESTER											
Esse3 code	N°	Courses	SSD	SSD 2024	CFU	B	C	D	E	F	Duration (hours)
146007	1a	Dynamics in systems and networks - mod. 1 Dynamical systems	ING-INF/04	IINF-04/A	6	6					60
	1b	Dynamics in systems and networks - mod. 2 Network dynamics	ING-INF/04	IINF-04/A	6	6					60
146005	2a	Organizations, human resources and innovation - mod. 1 Organization studies and human resources management	ING-IND/35	IEGE-01/A	6	6					60
	2b	Organizations, human resources and innovation - mod. 2 Management, innovation and change	ING-IND/35	IEGE-01/A	6	6					60
146006	3a	Advanced manufacturing and sustainable products - mod. 1 Design of smart and sustainable manufacturing	ING-IND/16	IIND-04/A	6	6					60
		SAFETY COURSES									(1)
				Tot. 1° sem	30	30	0	0	0	0	
SECOND SEMESTER											
Esse3 code	N°	Courses	SSD	SSD 2024	CFU	B	C	D	E	F	Duration (hours)
146006	3b	Advanced manufacturing and sustainable products - mod. 2 Simulation of manufacturing processes	ING-IND/16	IIND-04/A	6	6					60
146004	4a	Digital production and logistics systems - mod. 1 Design of digital production and assembly systems	ING-IND/17	IIND-05/A	6	6					60
	4b	Digital production and logistics systems - mod. 2 Logistics and warehouse management	ING-IND/17	IIND-05/A	6	6					60
146008	5	Decision and risk analysis	SECS-S/06	STAT-04/A	6		6				60
146014	6	Project management	ING-IND/17	IIND-05/A	6	6					60
		Other activities			3					3	(2) (3)
				Tot. 2° sem	33	24	6	0	0	3	
				Tot. 1st year	63	54	6	0	0	3	

PROFESSOR
Giordano Giulia
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Cirella Stefano
Cirella Stefano
Zanella Caterina

PROFESSOR
Zanella Caterina
Pilati Francesco
Pilati Francesco
Brunelli Matteo
Molinari Andrea

SECOND YEAR											
FIRST SEMESTER											
Esse3 code	N°	Courses	SSD	SSD 2024	CFU	B	C	D	E	F	Duration (hours)
146012	7	Financial analysis and performance management	SECS-P/07	ECON-06/A	6		6				48
146015	8	Machine learning	ING-INF/05	IINF-05/A	6		6				48
145534	9	Optimization models and algorithms	SECS-S/06	STAT-04/A	6		6				60
	12a	Elective course			6			6			60
				Tot. 1° sem	24	0	18	6	0	0	(4)
SECOND SEMESTER											
Esse3 code	N°	Courses	SSD	SSD 2024	CFU	B	C	D	E	F	Duration (hours)
145489	10	Enterprise information system	ING-INF/05	IINF-05/A	6		6				60
140473	11	Quality and innovation engineering	ING-INF/07	IMIS-01/B	6		6				60
	12b	Elective course			6			6			60
140458		Final project			15				15		(4)
				Tot. 2° sem	33	0	12	6	15	0	
				Tot. 2nd year	57	0	30	12	15	0	
				TOTAL CFU	120	54	36	12	15	3	

PROFESSOR
Candio Paolo
Passerini Andrea
Brunelli Matteo

PROFESSOR
Mich Luisa
Petri Dario

ELECTIVE COURSES											
FIRST SEMESTER											
Esse3 code	N°	Courses	SSD	SSD 2024	CFU	B	C	D	E	F	Duration (hours)
146042		Distributed robot perception	ING-INF/07	IMIS-01/B	6			6			60
146113		Design of precision systems	ING-IND/12	IMIS-01/A	6			6			60
145530		Industrial systems modeling	ING-INF/05	IINF-05/A	6			6			60
146284		Product variety management	ING-IND/35	IEGE-01/A	6			6			60
SECOND SEMESTER											
Esse3 code	N°	Courses	SSD	SSD 2024	CFU	B	C	D	E	F	Duration (hours)
145572		Circular economy for materials processing	ING-IND/21	IIND-03/C	6			6			60
145782		Laboratory of Internet of Things	ING-INF/01	IINF-01/A	6			6			60
140431		Modeling and design with finite elements	ING-IND/14	IIND-03/A	6			6			60
145486		Recycling and sustainable materials	ING-IND/22	IMAT-01/A	6			6			60

PROFESSOR
Fontanelli Daniele
Bosetti Paolo
Fedrizzi Mario
Suzic Nikola

PROFESSOR
Pellizzari Massimo
Brunelli Davide
Benedetti Matteo
Pegoretti Alessandro

NOTES:

(1) = All students must fulfill **safety training requirements**:

- General safety training
- Specific safety training - Medium Risk

For any further informations: <https://www.unitn.it/en/study/register/documents-and-certificates/safety-training>

(2) = The curriculum is considered complete with a total of 3CFU - type F. The credits have to be obtained during the master with the following regulation: <https://www.dii.unitn.it/en/121/other-activities-type-f-credits>.

(3) = **International students** are required to demonstrate an adequate level of knowledge of the Italian language (level A1).

(4) = Different elective modules - not included in the Manifesto - have to be approved by the Teaching board of the Department.

Approved on 12/02/2025 by the Department's Board