



MASTER COURSE IN MANAGEMENT AND INDUSTRIAL SYSTEMS ENGINEERING (LM 31) - A.A. 2026/2027

A1) Curriculum Design and Sustainability

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					
	1b	Dynamics in systems and networks - mod. 2 Network dynamics	ING-INF/04	IINF-04/A	6	6					
146005	2a	Organizations, human resources and innovation - mod. 1 Organization studies and human resources management	ING-IND/35	IEGE-01/A	6	6					
	2b	Organizations, human resources and innovation - mod. 2 Management, innovation and change	ING-IND/35	IEGE-01/A	6	6					
146006	3a	Advanced manufacturing and sustainable products - mod. 1 Design of smart and sustainable manufacturing	ING-IND/16	IIND-04/A	6	6					
		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					
146004	4a	Digital production and logistics systems - mod. 1 Design of digital production and assembly systems	ING-IND/17	IIND-05/A	6	6					
	4b	Digital production and logistics systems - mod. 2 Logistics and warehouse management	ING-IND/17	IIND-05/A	6	6					
146008	5	Decision and risk analysis	SECS-S/06	STAT-04/A	6		6				
146014	6	Project management	ING-IND/17	IIND-05/A	6	6					
		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
Giordano Giulia
Cirella Stefano
Cirella Stefano
Zanella Caterina

PROFESSOR
Quagliato Luca
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)
146009	7	Engineering system design	ING-IND/14	IIND-03/A	6	6					
146012	8	Financial analysis and performance management	SECS-P/07	ECON-06/A	6		6				
146013	9	Strategic product design	ING-IND/22	IMAT-01/A	6	6					
	12a	Elective course			6			6			(4)
				Tot. 1° sem	24	0	18	6	0	0	
SECOND SEMESTER											
Esse3 code	N°	Courses	SSD	SSD 2024	CFU	B	C	D	E	F	Duration (hours)
146011	10	Materials selection for engineering design	ING-IND/22	IMAT-01/A	6	6					
146010	11	Sustainable materials management	ING-IND/21	IIND-03/C	6	6					
	12b	Elective course			6			6			(4)
140458		Final project			15				15		
				Tot. 2° sem	27	0	6	6	15	0	
				Tot. 2nd year	51	0	24	12	15	0	
				TOTAL CFU	114	54	30	12	15	3	

PROFESSOR
Gallo Pasquale
Candio Paolo
Rossi Stefano

PROFESSOR
DA DEFINIRE
Pellizzari Massimo

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			offered by LM 33
145530		Industrial systems modeling	ING-INF/05	IINF-05/A	6			6			
146284		Product variety management	ING-IND/35	IEGE-01/A	6			6			
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			offered by LM 53
146113		Design of precision systems	ING-IND/12	IMIS-01/A	6			6			offered by LM 33 - AD 146030 mod. 1
145782		Laboratory of Internet of Things	ING-INF/01	IINF-01/A	6			6			offered by LM 33
140431		Modeling and design with finite elements	ING-IND/14	IIND-03/A	6			6			offered by LM 33
145486		Recycling and sustainable materials	ING-IND/22	IMAT-01/A	6			6			offered by LM 53

PROFESSOR
Fontanelli Daniele
Fedrizzi Mario
Suzic Nikola

PROFESSOR
Pellizzari Massimo
Bosetti Paolo
Maci David
Benedetti Matteo
Pegoretti Alessandro

NOTES:

Courses with low student enrollment may be delivered using alternative teaching methods.

(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 18/02/2026 by the Department's Board



MASTER COURSE IN MANAGEMENT AND INDUSTRIAL SYSTEMS ENGINEERING (LM 31) - A.A. 2026/2027

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					
	1b	Dynamics in systems and networks - mod. 2 Network dynamics	ING-INF/04	IINF-04/A	6	6					
146005	2a	Organizations, human resources and innovation - mod. 1 Organization studies and human resources management	ING-IND/35	IEGE-01/A	6	6					
	2b	Organizations, human resources and innovation - mod. 2 Management, innovation and change	ING-IND/35	IEGE-01/A	6	6					
146006	3a	Advanced manufacturing and sustainable products - mod. 1 Design of smart and sustainable manufacturing	ING-IND/16	IIND-04/A	6	6					
		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					
146004	4a	Digital production and logistics systems - mod. 1 Design of digital production and assembly systems	ING-IND/17	IIND-05/A	6	6					
	4b	Digital production and logistics systems - mod. 2 Logistics and warehouse management	ING-IND/17	IIND-05/A	6	6					
146008	5	Decision and risk analysis	SECS-S/06	STAT-04/A	6		6				
146014	6	Project management	ING-IND/17	IIND-05/A	6	6					
		Other activities			3					3	(2) (3)
				Tot. 2° sem	33	24	6	0	0	3	
				Tot. 1st year	63	54	6	0	0	3	

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Quagliato Luca
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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					
146015	8	Machine learning	ING-INF/05	IINF-05/A	6	6					offered by DISI
145534	9	Optimization models and algorithms	SECS-S/06	STAT-04/A	6		6				
	12a	Elective course			6			6			(4)
				Tot. 1° sem	24	0	18	6	0	0	
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					
140473	11	Quality and innovation engineering	ING-INF/07	IMIS-01/B	6	6					
	12b	Elective course			6			6			(4)
140458		Final project			15				15		
				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											
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145530		Industrial systems modeling	ING-INF/05	IINF-05/A	6			6			
146284		Product variety management	ING-IND/35	IEGE-01/A	6			6			
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146113		Design of precision systems	ING-IND/12	IMIS-01/A	6			6			offered by LM 33 - AD 146030 mod. 1
145782		Laboratory of Internet of Things	ING-INF/01	IINF-01/A	6			6			offered by LM 33
140431		Modeling and design with finite elements	ING-IND/14	IIND-03/A	6			6			offered by LM 33
145486		Recycling and sustainable materials	ING-IND/22	IMAT-01/A	6			6			offered by LM 53

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