UNIVERSITÀ DI TRENTO
Department of Industrial Engineering

STUDENTS ENROLLED FROM A.A. 2021/2022

MASTER COURSE IN MECHATRONICS ENGINEERING - A.A. 2023/24

A3 Curriculum Intelligent vehicles

FIRST YEAR

FIRST SEMESTER

Esse3 code	N°	Courses	SSD	CFU	B	C	D	E	F	Duration (hours)	Notes	PROFESSOR
146029	1a	Mechatronic systems simulation - Mod. 1 Computational methods	MAT/08	6		6				60		Bertolazzi Enrico
146030	2a	Precision engineering - Mod. 1 Design of precision systems	ING-IND/12	6	6					60		Bosetti Paolo
146031	3	Mechanical design for mechatronics	ING-IND/14	9	9					90		Rustighi Emiliano
146032	4	Digital signal processing for mechatronics	ING-INF/07	6		6				60		Macii David
		SAFETY COURSES									(1)	
			Tot.	*27*	*15*	*12*	*0*	*0*	*0*			

SECOND SEMESTER

Esse3 code	N°	Courses	SSD	CFU	B	C	D	E	F	Duration (hours)	Notes	PROFESSOR
146029	1b	Mechatronic systems simulation - Mod. 2 Modeling	ING-IND/13	9	9					90		Biral Francesco
146030	2b	Precision engineering - Mod. 2 Digital manufacturing	ING-IND/16	6	6					60		Bosetti Paolo
140500	5	Automatic control	ING-INF/04	9		9				90		Zaccarian Luca
140417	6	Mechanical vibrations	ING-IND/13	6	6					60		Bortoluzzi Daniele
		Other activities		3					3		(2)	
			Tot.	*33*	*21*	*9*	*0*	*0*	*3*			
			Tot. 1st year	**60**	**36**	**21**	**0**	**0**	**3**			

SECOND YEAR

FIRST SEMESTER

Esse3 code	N°	Courses	SSD	CFU	B	C	D	E	F	Duration (hours)	Notes	PROFESSOR
146036	7	Distributed estimation for robots and vehicles	ING-INF/07	6		6				60	6 cfu from AD 146033	Fontanelli Daniele
146038	8	Intelligent vehicles and autonomous driving	ING-IND/13	6	6					60		Rosati Papini Gastone
140502	9	Embedded systems	ING-INF/01	9		9				90		Brunelli Davide
	12a	Elective course		6			6			60	(3)	
			Tot.	*27*	*6*	*15*	*6*	*0*	*0*			

SECOND SEMESTER

Esse3 code	N°	Courses	SSD	CFU	B	C	D	E	F	Duration (hours)	Notes	PROFESSOR
146035	10	Dynamics of vehicles	ING-IND/13	6	6					60		Biral Francesco
146039	11	Architectures of intelligent transportation systems	ING-IND/13	6	6					60		Rosati Papini Gastone
	12b	Elective course		6			6			60	(3)	
140458		Final project		15				15				
			Tot.	*33*	*12*	*0*	*6*	*15*	*0*			
			Tot. 2nd year	**60**	**18**	**15**	**12**	**15**	**0**			

TOTAL CFU	120	54	36	12	15	3

ELECTIVE COURSES

FIRST SEMESTER

Esse3 code	N°	Courses	SSD	CFU	B	C	D	E	F	Duration (hours)	Notes	PROFESSOR
145783		Advanced Formula SAE	ING-IND/12	6			6					Bosetti Paolo
146015		Machine learning	ING-INF/05	6			6			48	offered by DISI	
146196		Renewable energy conversion systems	ING-IND/13	6			6			60		
140470		Robotic perception and action	ING-IND/12	6			6			60	6 cfu from AD 140506	

SECOND SEMESTER

Esse3 code	N°	Courses	SSD	CFU	B	C	D	E	F	Duration (hours)	Notes	PROFESSOR
140474		Computer vision	ING-INF/03	6			6			48	offered by DISI	Conci Nicola
145764		Deep learning	ING-INF/05	6			6			48	offered by DISI	Ricci Elisa
146095		Optoelectronics and quantum devices for sensing and automation	FIS/01	6			6			60		Lobino Mirko
146040		Design methods for unmanned vehicles	ING-INF/01	6			6			60		Brunelli Davide
145958		Network dynamics	ING-INF/04	6			6			60	offered by LM 31 - AD 146007 mod. 2	Giordano Giulia

NOTES:

(1) = All students must have the certifications of:

- the **general training course "Sicurezza formazione generale"**, or similar course;
- the **specific training course - medium risk "Sicurezza in laboratorio- UniTrento",** or similar course;
- For any further information about safety training, please visit the website: https://infostudenti.unitn.it/en/safety-training-for-students

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

Approved on 15/02/2023 by the Department's Board