

Study plan Master of Science (CL LM 33) Mechanical Engineering curr. Smart Technology Engineering
Academic year 2021-22 (for 2nd year students enrolled in 2020-21)

1st year

No.	Sem.	SSD	Course	Credits	course code	Professor
1	1	ING-IND/09	Sustainable energy	9	39164-ENG	Silvia Ravelli
2	2	ING-IND/15	Virtual and physical prototyping	6	39165-ENG	Daniele Regazzoni
3	2	ING-IND/13	Mechatronic systems design	6	39166-ENG	Paolo Righettini
			3 CFU Mechatronic systems design			Roberto Strada
			3 CFU Functional design of mechatronic systems (offered in MS Ingegneria Meccanica)			
4	1	ING-IND/10	Thermal physics for advanced technology	6	39167-ENG	Simona Tonini
5	1	ING-INF/01	Smart sensors and electronic systems	8	39168-ENG	Gianluca Traversi
			2 CFU Smart sensors			Valerio Re
			6 CFU Biomedical sensors (offered in MS Engineering and Management for Health)			
6	1	ING-INF/05	Embedded and real-time systems (offered in MS Ingegneria Informatica)	6	21038-ENG	Davide Brugali
7	2	ING-INF/04	Dynamics systems identification	6	148004	Antonio Ferramosca
8	2	ING-IND/22	Materials for advanced engineering applications	6	39171-ENG	Sergio Lorenzi
ELECTIVE COURSES (6 CFU):						
12a		ING-INF/05	Robotica	6	39068	Davide Brugali
		ING-IND/14	Progettazione FEM		39056	Sergio Baragetti
		ING-IND/06	Computational fluid dynamics		39070-ENG	Alessandro Colombo
		ICAR/08	Computational mechanics of solids and structures		60039-ENG	Rosalba Ferrari
		and other elective courses of the Master of Science Mechanical Engineering				
Total Credits 1st year (CFU)				59		

2nd year

No.	Sem.	SSD	Course	Credits	course code	Professor
SMART BUILDINGS LAB						
9	1	ICAR/08	Structural monitoring	3	39188-ENG	Rosalba Ferrari
	1	ICAR/09	Structural safety and risk assessment	6		Andrea Belleri
	1	ING-IND/09	Smart energy buildings	6		Giuseppe Franchini
	1	ING-IND/33	Smart electrical infrastructure	6		Mariacristina Roscia
				21		
SMART MANUFACTURING AND PROCESSING LAB						
Smart manufacturing and processing Lab (A)						
10	2	ING-IND/13	Robots for industrial applications and advanced production lines	6	39189-ENG	Paolo Righettini
	2	ING-IND/17	Advanced production systems	6		Paolo Gaiardelli
				12		
Smart manufacturing and processing Lab (B)						
11	2	ING-IND/16	Smart manufacturing technologies	6	39190-ENG	Gianluca D'Urso
	2	ING-IND/22	Advanced materials and characterisation techniques	3		Sergio Lorenzi
				9		
ELECTIVE COURSES (6 CFU):						
12b		ING-INF/05	Robotica	6	39068	Davide Brugali
		ING-IND/14	Progettazione FEM	6	39056	Sergio Baragetti
		ING-IND/06	Computational fluid dynamics	6	39070-ENG	Alessandro Colombo
		ICAR/08	Computational mechanics of solids and structures	6	60039-ENG	Rosalba Ferrari
	2	ING-IND/13	IT architecture in production	6	39187	Oliver Riedel
	and other elective courses of the Master of Science Mechanical Engineering					
Total Credits (CFU)				54		
	Other skills			1	39077	
	Project Work			12	39002	