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**Faculty of Engineering and Architecture**  
[https://www.unica.it/unica/it/fac\\_ingarch.page](https://www.unica.it/unica/it/fac_ingarch.page)

**Academic Year 2023/2024**

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**1. Degree Programmes A.Y. 2023/24**

In academic year 2023/24 the Faculty of Engineering and Architecture offers the following degree programmes:

<b>Bachelor's degree programmes (Italian course classification)</b>	<b>Web site</b>
Architectural Science (L-17)	<a href="https://www.unica.it/unica/it/crs_80_71.page">https://www.unica.it/unica/it/crs_80_71.page</a>
Biomedical Engineering (L-8 & L-9)	<a href="https://www.unica.it/unica/it/crs_70_75.page">https://www.unica.it/unica/it/crs_70_75.page</a>
Chemical Engineering for Innovation and Process Sustainability (L-9)	<a href="https://www.unica.it/unica/it/crs_70_77.page">https://www.unica.it/unica/it/crs_70_77.page</a>
Civil Engineering (L-7)	<a href="https://www.unica.it/unica/it/crs_70_72.page">https://www.unica.it/unica/it/crs_70_72.page</a>
Electrical Energy Engineering for Sustainable Development (L-9)	<a href="https://unica.it/unica/it/crs_70_92.page">https://unica.it/unica/it/crs_70_92.page</a>
Electronic, Computer and Telecommunication Engineering (L-8)	<a href="https://www.unica.it/unica/it/crs_70_94.page">https://www.unica.it/unica/it/crs_70_94.page</a>
Environmental and Land Engineering (L-7)	<a href="https://www.unica.it/unica/it/crs_70_73.page">https://www.unica.it/unica/it/crs_70_73.page</a>
Mechanical and Management Engineering (L-9)	<a href="https://www.unica.it/unica/it/crs_70_78.page">https://www.unica.it/unica/it/crs_70_78.page</a>
<b>Vocational Bachelor's degree programme (Italian course classification)</b>	<b>Web site</b>
Techniques for Building Construction and Land Development (L-P01)	<a href="https://unica.it/unica/it/crs_70_93.page">https://unica.it/unica/it/crs_70_93.page</a>
Industrial Technologies for Energy and Digital Transition (L-P03)	<a href="https://unica.it/unica/it/crs_70_96.page">https://unica.it/unica/it/crs_70_96.page</a>



<b>Master's degree programmes (Italian course classification)</b>	<b>Web site</b>
Architecture (LM-4)	<a href="https://www.unica.it/unica/it/crs_80_72.page">https://www.unica.it/unica/it/crs_80_72.page</a>
Chemical and Biotechnological Process Engineering (LM-22)	<a href="https://www.unica.it/unica/it/crs_70_88.page">https://www.unica.it/unica/it/crs_70_88.page</a>
Civil Engineering (LM-23)	<a href="https://www.unica.it/unica/it/crs_70_80.page">https://www.unica.it/unica/it/crs_70_80.page</a>
Computer Engineering, Cybersecurity and Artificial Intelligence (LM-32)	<a href="https://www.unica.it/cyberai">https://www.unica.it/cyberai</a>
Electrical Engineering (LM-28)	<a href="https://www.unica.it/unica/it/crs_70_82.page">https://www.unica.it/unica/it/crs_70_82.page</a>
Electronic Engineering (LM-29)	<a href="https://www.unica.it/unica/it/crs_70_83.page">https://www.unica.it/unica/it/crs_70_83.page</a>
Energetic Engineering (LM-30)	<a href="https://www.unica.it/unica/it/crs_70_84.page">https://www.unica.it/unica/it/crs_70_84.page</a>
Environmental Engineering for Sustainable Development (LM-35)	<a href="https://www.unica.it/unica/it/crs_70_86.page">https://www.unica.it/unica/it/crs_70_86.page</a>
Internet Engineering (LM-27)	<a href="https://www.unica.it/unica/it/crs_70_91.page">https://www.unica.it/unica/it/crs_70_91.page</a>
Mechanical Engineering (LM-33)	<a href="https://www.unica.it/unica/it/crs_70_85.page">https://www.unica.it/unica/it/crs_70_85.page</a>

The School that supplies these programmes is the Faculty of Engineering and Architecture, located in the sites of [piazza d'Armi and Castello](#) in Cagliari, except for some courses that are taught in other structures of University of Cagliari.

## 2. Admission

### 2.1 BACHELOR'S DEGREES

*Minimum qualification required: Five-year high school diploma*

<b>Degree Programme (University code)</b>	<b>Test date</b>	<b>Access</b>	<b>Students admitted</b>	
			total	Foreign students
Architectural Science (80/71)	28 July 2023 12 September 2023	national restricted access	108	8
Biomedical Engineering (70/75)	26 July 2023 (at University) 30 August 2023 (at University) 31 August 2023 (on-line TOLC@CASA) 1 September 2023 (at University)	local restricted access	180	5
Chemical Engineering for Innovation and Process Sustainability (70/97)		free access	-	15
Civil Engineering (70/72)		local restricted access	180	3
Electrical Energy Engineering for Sustainable Development (70/92)		local restricted access	180	5
Electronic, Computer and Telecommunication Engineering (70/94)		local restricted access	180	4



Environmental and Land Engineering (70/73)		free access	-	10
Mechanical and Management Engineering (70/98)		local restricted access	180	4

The admission to the chosen programme, if at local restricted access, depends on the personal position in the list of candidates passing the entrance test.

More information is available (in Italian language) on the [Faculty web site](#).

All the administrative procedures to enroll are available at link <https://webstudenti.unica.it/esse3/Home.do>.

## 2.2 VOCATIONAL BACHELOR'S DEGREE PROGRAMME

*Minimum qualification required: Five-year high school diploma*

Degree Programme (University code)	Test date	Access	Students admitted	
			total	Foreign students
Techniques for Building Construction and Land Development (70/93)	26 July 2023 (at University) 30 August 2023 (at University)	local restricted access	35	0
Industrial Technologies for Energy and Digital Transition (70/96)	31 August 2023 (on-line TOLC@CASA) 1 September 2023 (at University)	local restricted access	15+15	0

The admission to the chosen programme depends on the personal position in the list of candidates passing the entrance test.

More information is available (in Italian language) on the [Faculty web site](#).

All the administrative procedures to enroll are available at link <https://webstudenti.unica.it/esse3/Home.do>.

## 2.2 MASTER'S DEGREES

Master's Degree Programmes in Engineering and in Architecture are open access.

In any case specific curricular requirements must be satisfied and the assessment of personal proficiency and skills is required.

*Minimum qualification required: First Cycle (Bachelor's) Degree*

Degree Programme (University code)	Test date/ Assessment of personal proficiency	Access	Students admitted	
			total	Foreign students
Architecture (80/72)	12 September 2023	open access	-	4
Chemical and Biotechnological Process Engineering (70/88)	18 September 2023	open access	-	15
Civil Engineering (70/80)	21 September 2023	open access	-	10
Computer Engineering, Cybersecurity and Artificial Intelligence (70/90)	22 September 2023	open access	-	40



Electrical Engineering (70/82)	8 September 2023	open access	-	10
Electronic Engineering (70/83)	21 September 2023	open access	-	11
Energetic Engineering (70/84)	19 September 2023	open access	-	15
Environmental Engineering for Sustainable Development (70/95)	20 September 2023	open access	-	20
Internet Engineering (70/91)	26 September 2023	open access	-	17
Mechanical Engineering (70/85)	18 September 2023	open access	-	11

The methods and schedules for assessing curricular requirements and personal proficiency and skills may vary from programme to programme. Specific information about curricular requirements, methods and dates is available in the course website from [Faculty website](#), in the academic Regulation of the Degree Programme you are interested in.

### 3. Compulsory Supplementary Education (CSE) – Bachelor degrees

#### 3.1 BACHELOR DEGREES IN ENGINEERING

A test result below the pass threshold (score < 15/50), for candidates in useful position in the list, causes assignment of compulsory supplementary education (CSE). These students can take advantage of the realignment courses available in the Faculty and on the online platform of the University. The CSE can be satisfied by passing the test in a subsequent session (score > 7/20), passing the intermediate exam in Mathematical analysis 1 or by passing the complete exam in Mathematical analysis 1, before taking any other exams.

#### 3.2 BACHELOR DEGREE IN ARCHITECTURAL SCIENCE

A test result below the pass threshold (score < 20/50), for candidates in useful position in the list, causes assignment of compulsory supplementary education (CSE). These students can take advantage of the realignment courses available in the Faculty and on the online platform of the University. The CSE can be satisfied by passing the test in a subsequent session or by passing the exam in Architectural Drawing and the exam in Integrated Course in Mathematics, before taking any other exams.

#### 3.3 VOCATIONAL BACHELOR'S DEGREES

A test result below the pass threshold (score < 9/30), for candidates in useful position in the list, causes assignment of compulsory supplementary education (CSE). These students can take advantage of the realignment courses available in the Faculty and on the online platform of the University. The CSE can be satisfied by passing the test in a subsequent session (score = > 8/20) or by passing the exam in Mathematics (Integrated course: mathematical methods and physics principles for construction and land development), before taking any other exams.

### 4. European language level

All students must possess the European language level indicated in the table to acquire the relative credits:



<b>Degree Programme (University code)</b>	<b>EU Language</b>	<b>European level (CEFR)</b>	<b>ECTS</b>
Architectural Science (80/71)	English or other EU language*	B1	3
Biomedical Engineering (70/75)	English	B1	3
Chemical Engineering for Innovation and Process Sustainability (70/97)	English	B1	3
Civil Engineering (70/72)	English	B1	3
Electrical Energy Engineering for Sustainable Development (70/92)	English	B1	3
Electronic, Computer and Telecommunication Engineering (70/94)	English	B1	3
Environmental and Land Engineering (70/73)	English	B1	3
Mechanical and Management Engineering (70/98)	English	B1	3
Techniques for Building Construction and Land Development (70/93)	English	B1	3
Industrial Technologies for Energy and Digital Transition (70/96)	English	B1	3
Architecture (80/72)	English or other EU language*	B2	3
Chemical and Biotechnological Process Engineering (70/88)	English	B2	3
Civil Engineering (70/80)	English	B2	3
Electrical Engineering (70/82)	English	B2	3
Electronic Engineering (70/83)	English	B2	3
Environmental Engineering for Sustainable Development (70/95)	English	B2	3
Internet Engineering (70/91)	English	B2	3
Mechanical Engineering (70/85)	English	B2	3

\* French, Spanish, German language

## 5. Teaching calendar and course schedule

Teaching calendar is online on Faculty web site at the menù calendars and timetable > [academic calendar](#).

**First semester:** 02/10/2023 – 22/12/2023;

**Second semester:** 04/03/2024 – 08/06/2024.

Course schedule is online on Faculty web site at the menù calendars and timetable > [course timetable](#).

## 6. Course attendance

The course attendance is mandatory.



## 7. Syllabi

Course outlines can be found on the university website at the link [Course search](#).

## 8. Exam sessions

The exam dates are 7, distributed as:

- 3 from 8<sup>th</sup> January to 2<sup>nd</sup> March 2024;
- 3 from 10<sup>th</sup> June to 31<sup>st</sup> July 2024;
- 1 from 2<sup>nd</sup> September to 28<sup>th</sup> September 2024.

All information about exam calendar and registration are online on the Faculty web site at the menù calendar and timetable > [exam timetable](#).

Exam schedule is also on Unica website at link [Bacheca Appelli](#).

To register to an exam on-line, go to [Esse3 \(Studenti e docenti\)](#) – Login, using your University User ID and Password.

## 9. Teaching courses a.y. 2023/2024

The teaching courses in academic year 2023/2024 are available in Annex A, for each degree programme.



**Annex A- Degree Programmes and teaching courses available in A.Y. 2023/2024**

**Bachelor degrees**

<a href="#"><u>Civil Engineering</u></a>	–	L-7
<a href="#"><u>Environmental and Land Engineering</u></a>	–	L-7
<a href="#"><u>Electronic, Computer and Telecommunication Engineering</u></a>	–	L-8
<a href="#"><u>Chemical Engineering for innovation and process sustainability</u></a>	–	L-9
<a href="#"><u>Electrical Energy Engineering for Sustainable Development</u></a>	–	L-9
<a href="#"><u>Mechanical and Management Engineering</u></a>	–	L-9
<a href="#"><u>Biomedical Engineering</u></a>	–	L-8 & L-9
<a href="#"><u>Electrical, Electronic and Computer Engineering</u></a>	–	L-8 & L-9
<a href="#"><u>Architectural Science</u></a>	–	L-17

**Vocational Bachelor's degree**

<a href="#"><u>Techniques for Building Construction and Land Development</u></a>	–	L-P01
<a href="#"><u>Industrial Technologies for Energy and Digital Transition</u></a>	–	L-P03

**Master's degrees**

<a href="#"><u>Architecture</u></a>	–	LM-4
<a href="#"><u>Chemical and Biotechnological Process Engineering</u></a>	–	LM-22
<a href="#"><u>Civil Engineering</u></a>	–	LM-23
<a href="#"><u>Internet Engineering</u></a>	–	LM-27
<a href="#"><u>Electrical Engineering</u></a>	–	LM-28
<a href="#"><u>Electronic Engineering</u></a>	–	LM-29
<a href="#"><u>Energetic Engineering</u></a>	–	LM-30
<a href="#"><u>Computer Engineering, Cybersecurity and Artificial Intelligence</u></a>	–	LM-32
<a href="#"><u>Mechanical Engineering</u></a>	–	LM-33
<a href="#"><u>Environmental Engineering for Sustainable Development</u></a>	–	LM-35

The most courses are taught in Italian language, only the courses with the English flag are taught in English language.

Only the master's degree programme in Computer Engineering, Cybersecurity and Artificial Intelligence is completely taught in English language.

**Abbreviations**

SSD	Scientific Disciplinary Sector
TAF	Type of Educational Activity



## Civil Engineering (L-7)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0186	Mathematical Analysis 1	MAT/05	A	9	90	Viglialoro Giuseppe
1	IA/0220	Fundamentals of Computer Science	ING-INF/05	A	6	60	Fumera Giorgio
1	IN/0191	Integrated Course: Chemistry and Materials Technology and Applied Chemistry					
1	70/0001-M	- Module: Chemistry	CHIM/07	A	6	60	Serpe Angela
2	70/0085-M	- Module: Materials Technology and Applied Chemistry	ING-IND/22	C	5	50	Pia Giorgio
1	IN/0081	Integrated Course: Technical Architecture and Graphics Lab					
1	IN/0083	- Module: Graphics Lab	ICAR/17	F	4	40	Argiolas Raffaele
2	IN/0082	- Module: Technical Architecture	ICAR/10	B	6	60	Loddo Gianraffaele
2	70/0004-M	Physics 1	FIS/01	A	8	80	Bortignon Pier Luigi Dettori Riccardo
2	IN/0079	Geometry and Algebra	MAT/03	A	7	70	Ratto Andrea

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0188	Mathematical Analysis 2	MAT/05	A	8	80	Arrai Francesco
1	70/0005-M	Physics 2	FIS/01	A	7	70	Corpino Riccardo
1	70/0073-M	Mechanics	MAT/07	A	6	60	Mignemi Salvatore
1	IN/0080	Decisional Methods in Economy	MAT/09	C	5	50	Manca Benedetto
2	70/0080-M	Structural Mechanics/Strength of Materials	ICAR/08	B	10	100	Cazzani Antonio M.
2	70/0059-M	Hydraulics	ICAR/01	B	10	100	Balzano Andrea
2	70/0056-M	Fundamentals of Transport	ICAR/05	B	6	60	Serra Patrizia

### Third year – enrolled student a.y. 2021/22

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0048	Hydrology and Statistics	ICAR/02	B	8	80	Montaldo Nicola
	IN/0087	Integrated Course: Topography and Topography Laboratory					
1	IN/0088	- Module: Topography	ICAR/06	B	6	60	Sanna Giovanna M.
1	IN/0089	- Module: Topography Laboratory	ICAR/06	F	4	40	Sanna Giovanna M.



	IN/0090	Integrated Course: Applied Thermodynamics and Electrotechnics					
1	IN/0091	- Module: Applied Thermodynamics	ING-IND/11	C	5	50	Baccoli Roberto
2	IN/0092	- Module: Electrotechnics	ING-IND/31	C	4	40	Sias Giuliana
1-2	70/0084-M	Theory and Technology of Structures	ICAR/09	B	10	100	Sassu Mauro Puppio Mario Lucio
	IN/0093	Integrated Course: Geotechnics and Construction of Road, Railways and Airport					
2	IN/0095	- Module: Construction of Road, Railways and Airport	ICAR/04	B	6	60	Maltinti Francesca
2	IN/0094	- Module: Geotechnics	ICAR/07	B	6	60	Soccodato Fabio M.
	70/0090-M	Integrated Course: Water Supply and Sewerage and Water Supply and Sewerage Lab					
2	70/0090-M1	- Module: Water Supply and Sewerage	ICAR/02	B	6	60	Viola Francesco
2	70/0090-M2	- Module: Water Supply and Sewerage Lab	ICAR/02	F	4	40	Viola Francesco

**Activities rules**

Academic Year Enrolment	If you do not pass:	You cannot take:
2022/23	Mathematical Analysis 1 Geometry and Algebra Physics 1	All 2nd year exams
2021/22	Mathematical Analysis 2 Physics 2	All 3rd year exams
	Mechanics Construction Theory	Theory and Technology of Structures
	Mechanics Construction Theory	Integrated Course: Geotechnics and Construction of Road, Railways and Airport

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Environmental and Land Engineering (L-7)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0186	Mathematical Analysis 1	MAT/05	A	9	90	Viglialoro Giuseppe
1	70/0001-M	Chemistry	CHIM/07	A	6	60	Serpe Angela
1	IA/0220	Fundamentals of Computer Science	ING-INF/05	A	6	60	Fumera Giorgio
1	IA/0187	Engineering for Sustainable Development		F	1	25	COORDINATOR
2	70/0004-M	Physics 1	FIS/01	A	8	80	Bortignon Pier Luigi Dettori Riccardo
2	IN/0079	Geometry and Algebra	MAT/03	A	7	70	Ratto Andrea
2	IN/0098	Lithology and Geology	GEO/09	C	6	60	Valera Paolo
2	70/0064-M	Graphics Lab	ICAR/17	F	6	60	Pirinu Andrea

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0188	Mathematical Analysis 2	MAT/05	A	8	80	Arrai Francesco
1	70/0005-M	Physics 2	FIS/01	A	7	70	Corpino Riccardo
1	AR/0009	Environmental Technical Physics	ING-IND/11	C	6	60	Frattolillo Andrea
1	IN/0101	Integrated Course: Science and Technology of Constructions - Module: Construction Theory	ICAR/08	B	8	80	Brun Michele
2	IN/0102						
2	IN/0103						
2	70/0065-M	Electrotechnics Laboratory	ING-IND/31	F	6	60	Montisci Augusto
2	70/0059-M	Hydraulics	ICAR/01	B	10	100	Balzano Andrea
2	70/0054-M	Transport Phenomena in Environmental Protection	ING-IND/24	C	6	60	Cao Giacomo

### Third year – enrolled student a.y. 2021/22

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0097	Applied Geology	GEO/05	B	6	60	Carletti Alberto
1	IA/0048	Hydrology and Statistics	ICAR/02	B	8	80	Deidda Roberto
1	IA/0172	Occupational Health and Safety	ING-IND/28	B	6	60	Massacci Giorgio



1	70/0089-M	Topography and Cartography	ICAR/06	B	6	60	Vacca Giuseppina
2	IA/0078	Environmental Pollution and Remediation Processes	ICAR/03	B	8	80	Carucci Alessandra Farru Gianluigi
2	IA/0194	Sustainable Spatial Planning	ICAR/20	B	8	80	Zoppi Corrado Leone Federica
	IN/0099	Integrated Course: Geotechnics and Applied Seismology					
2	IN/0094	- Module: Geotechnics	ICAR/07	B	6	60	Tropeano Giuseppe
2	IN/0100	- Module: Applied Seismology	GEO/11	B	6	60	Deidda Gian Piero

**Laboratories that can be chosen by students to satisfy part of the credits of own free choice**

Sem	Code course	Laboratories	SSD	ECTS	H	Teacher
2	IN/0220	Sanitary and Environmental Engineering Laboratory	ICAR/03	2	25	Cappai Giovanna S.
2	IA/0170	Environmental Geophysics Lab	GEO/11	3	30	Deidda Gian Piero
2	IA/0001	Workshop of Regional Planning	ICAR/20	3	45	Lai Sabrina Zoppi Corrado

Other optional activities can be communicated on course web site.

**Activities rules**

Academic Year Enrolment	If you do not pass:	You cannot take:
2022/23	Mathematical Analysis 1 Geometry and Algebra Physics 1	All 2nd year exams
2021/22	Mathematical Analysis 2 Physics 2	All 3rd year exams

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Electronic, Computer and Telecommunication Engineering (L-8)

*available only the first and the second year*

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0186	Mathematical Analysis 1	MAT/05	A	9	90	Loi Roberto
1	70/0004-M	Physics 1	FIS/01	A	8	80	Chiriu Daniele
1	IN/0155	Integrated Course: Information Processing Systems					
1	IA/0274	- Module: Programming Fundamentals	ING-INF/05	A	6	60	Fraschini Matteo
2	IN/0157	- Module: Computer Architectures	ING-INF/05	A	6	60	Orrù Giulia Roli Fabio Casula Roberto
2	70/0001-M	Chemistry	CHIM/07	C	6	60	Casula M. Francesca
2	70/0005-M	Physics 2	FIS/01	A	6	60	Oldeman Rudolf G.C.
2	IN/0079	Geometry and Algebra	MAT/03	A	7	70	Franzoni Gregorio
2	IN/0005	Communication Networks	ING-INF/03	B	6	60	Martalò Marco

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0188	Mathematical Analysis 2	MAT/05	A	8	80	Piro Stella
1	70/0069-M	Applied Mathematics	MAT/08	C	6	60	Rodriguez Giuseppe
1	70/0078-M	Digital Systems Design	ING-INF/01	B	12	120	Raffo Luigi
	70/0019-M	Integrated Course: Analysis and Control of Dynamical Systems					
1	IN/0019	- Module: System Theory	ING-INF/04	B	6	60	Seatzu Carla
2	IN/0020	- Module: Automatic Control Systems	ING-INF/04	B	6	60	Usai Elio
2	IA/0275	Circuit Theory	ING-IND/31	C	8	80	Pisano Fabio
	IA/0280	Integrated Course: Signal Measurement, Coding and Transmission					
2	IA/0281	- Module: Measurement Systems for Information Engineering	ING-INF/07	B	6	60	Pegoraro Paolo A.
2	IA/0282	- Module: Telecommunication Systems	ING-INF/03	B	6	60	Giusto Daniele
2	IA/0283	Advanced Programming	ING-INF/05	B	6	60	Didaci Luca



**Activities rules**

<b>Academic Year Enrolment</b>	<b>If you do not pass:</b>	<b>You cannot take:</b>
2023/24	Physics 2	Physics 1
2022/23	Mathematical Analysis 1 Geometry and Algebra Physics 1	All 2nd year exams

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Chemical Engineering for Innovation and Process Sustainability (L-9)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0186	Mathematical Analysis 1	MAT/05	A	9	90	Vigialoro Giuseppe
1	IA/0171	Chemistry 1	CHIM/07	A	9	90	Pilia Luca
1	IA/0051	Chemistry Laboratory	CHIM/07	F	3	30	Pilia Luca
1	IA/0337	Introduction to Materials Science	ING-IND/22	F	3	30	Cappai Marta
2	70/0017-M	Chemistry 2	CHIM/07	A	6	60	Delogu Francesco
2	IA/0336	Elements of Chemical Engineering of Renewable Sources	ING-IND/24	F	3	30	Desogus Francesco
2	70/0004-M	Physics 1	FIS/01	A	8	80	Bortignon Pier Luigi Dettori Riccardo
2	IA/0339	Elements of Food Engineering	ING-IND/24	F	3	30	Desogus Francesco
2	IN/0079	Geometry and Algebra	MAT/03	A	7	70	Arrai Francesco
2	IA/0338	Laboratory of Materials Science	ING-IND/22	F	3	30	Cappai Marta

### Second year – enrolled student a.y. 2022/23 (Chemical Engineering)

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0188	Mathematical Analysis 2	MAT/05	A	8	80	Arrai Francesco
1	70/0017-M	Chemistry 2	CHIM/07	A	6	60	Delogu Francesco
1	70/0005-M	Physics 2	FIS/01	A	7	70	Corpino Riccardo
2	70/0088-M	Chemical Thermodynamic	ING-IND/24	B	9	90	Locci Antonio M.
2	70/0053-M	Electrotechnics	ING-IND/31	C	6	60	Cannas Barbara
2	70/0072-M	Fluid Mechanics	ICAR/01	C	9	90	Ferrari Simone
2	IA/0153	Fundamentals of Mass, Energy and Momentum Transport	ING-IND/24	B	6	60	Locci Antonio M.

### Third year – enrolled student a.y. 2021/22 (Chemical Engineering)

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/0069-M	Applied Mathematics	MAT/08	A	6	60	Fermo Luisa
1	IN/0102	Construction Theory	ICAR/08	C	6	60	Brun Michele
1	70/0068-M	Fluid Machinery and Energy Systems	ING-IND/09	B	9	90	Cocco Daniele



1-2	70/0087-M	Applied Chemistry and Technology	ING-IND/22	B	12	120	Licheri Roberta
2	70/0060-M	Chemical Plant Design	ING-IND/25	B	9	90	Leonzio Grazia Mais Laura
2	70/0063-M	Chemical Reaction Engineering	ING-IND/24	B	9	90	Lai Nicola
2	70/0083-M	Instrumentation and Control	ING-IND/26	B	9	90	Baratti Roberto

**Activities rules**

Academic Year Enrolment	If you do not pass:	You cannot take:
2022/23	Mathematical Analysis 1 Geometry and Algebra Physics 1	All 2nd year exams
2021/22	Mathematical Analysis 2 Physics 2	All 3rd year exams

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Electrical Energy Engineering for Sustainable Development (L-9)

*available only the first and the second year*

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0186	Mathematical Analysis 1	MAT/05	A	9	90	Cannas Aghedu Francesco
1	70/0001-M	Chemistry	CHIM/07	A	6	60	Vacca Annalisa
1	70/0004-M	Physics 1	FIS/01	A	8	80	Sanna Andrea Corpino Riccardo
2	IA/0220	Fundamentals of Computer Science	ING-INF/05	A	6	60	Didaci Luca
2	70/0005-M	Physics 2	FIS/01	A	7	70	Filippetti Alessio
2	IN/0079	Geometry and Algebra	MAT/03	A	7	70	Franzoni Gregorio
	IA/0221	Integrated course: Systems for Digital Sustainability					
1	IA/0222	- Module: Geography of Digital Sustainability	M-GGR/02	C	5	50	Mundula Luigi
2	IN/0005	- Module: Communication Networks	ING-INF/03	C	6	60	Martalò Marco

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0188	Mathematical Analysis 2	MAT/05	A	8	80	Piro Stella
1	IA/0234	Machine learning and data mining	ING-INF/05	C	6	60	Biggio Battista Putzu Lorenzo
1	IN/0225	Materials Technology	ING-IND/22	C	6	60	Pia Giorgio
1-2	70/0053-M	Electrotechnics	ING-IND/31	B	12	120	Fanni Alessandra
1-2	IA/0223	Fundamentals on automatic control	ING-INF/04	B	9	90	Usai Elio Franceschelli Mauro
	IA/0225	Integrated course: Fundamentals of Energy Sustainability					
1	IN/0091	- Module: Applied Thermodynamics	ING-IND/11	B	6	60	Baccoli Roberto
2	IA/0226	- Module: Principles of Sustainable Mobility	ICAR/05	C	5	50	Serra Patrizia Sottile Eleonora
2	IA/0224	Measurements and Instrumentation	ING-INF/07	B	6	60	Muscas Carlo
	IA/0235	Integrated course: IoT Platforms					
2	IA/0236	- Module: Hardware Platforms for IoT	ING-INF/01	C	3	30	Busia Paola
2	IA/0237	- Module: Data Processing and Transmission	ING-INF/03	C	3	30	Pilloni Virginia



**Activities rules**

<b>Academic Year Enrolment</b>	<b>If you do not pass:</b>	<b>You cannot take:</b>
2023/24	Physics 2	Physics 1
2022/23	Mathematical Analysis 1 Geometry and Algebra Physics 1	All 2nd year exams

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Mechanical and Management Engineering (L-9)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0186	Mathematical Analysis 1	MAT/05	A	9	90	Mutzu Martis Massimiliano
1	70/0001-M	Chemistry	CHIM/07	A	6	60	Casula M. Francesca
1	70/0004-M	Physics 1	FIS/01	A	8	80	Mura A. Andrea
2	IA/0220	Fundamentals of Computer Science	ING-INF/05	A	6	60	Didaci Luca
2	IN/0079	Geometry and Algebra	MAT/03	A	7	70	Arrai Francesco
2	70/0005-M	Physics 2	FIS/01	A	7	70	Bozzi Giuseppe
2	IN/0225	Materials Technology	ING-IND/22	C	6	60	Pia Giorgio

### Second year – enrolled student a.y. 2022/23 (Mechanical Engineering)

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0188	Mathematical Analysis 2	MAT/05	A	8	80	Marras Monica
1	IN/0225	Materials Technology	ING-IND/22	C	6	60	Pia Giorgio
1	70/0050-M	Technical Drawing	ING-IND/15	B	6	60	Ambu Rita
1	IA/0005	Integrated Course: Thermofluid Dynamics					
1	IN/0091	- Module: Applied Thermodynamics	ING-IND/11	C	6	60	Baccoli Roberto
2	70/0072-M	- Module: Fluid Mechanics	ICAR/01	C	6	60	Querzoli Giorgio
2	IN/0102	Construction Theory	ICAR/08	C	9	90	Carta Giorgio
2	70/0053-M	Electrotechnics	ING-IND/31	C	6	60	Cannas Barbara
2	70/0086-M	Manufacturing Technology	ING-IND/16	B	9	90	El Mehtedi Mohamad

### Third year – enrolled student a.y. 2021/22 (Mechanical Engineering)

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/0070-M	Applied Mechanics	ING-IND/13	B	9	90	Ruggiu Maurizio
1	70/0066-M	Fluid Machinery	ING-IND/08	B	9	90	Puddu Pierpaolo
1	IN/0104	Integrated Course: Machine Components Design					
1	IN/0105	- Module: Fundamentals of Machine Design	ING-IND/14	B	6	60	Leban Bruno
2	IN/0106	- Module: Machine Elements	ING-IND/14	B	6	60	Baldi Antonio
2	70/0082-M	Energy Systems	ING-IND/09	B	9	90	Cau Giorgio



2	IN/0234	Industrial Plans	ING-IND/17	B	9	90	Pilloni M. Teresa
2	IA/0007	Measurements in Fluid Machines	ING-IND/08	B	6	60	Cambuli Francesco

#### Activities rules

Academic Year Enrolment	If you do not pass:	You cannot take:
2023/24	Physics 1	Physics 2
2022/23	Mathematical Analysis 1 Geometry and Algebra Physics 1	All 2nd year exams
2021/22	Mathematical Analysis 2 Physics 2	All 3rd year exams

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



**Biomedical Engineering (L-8 & L-9)**

**First year – enrolled student a.y. 2023/24**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0186	Mathematical Analysis 1	MAT/05	A	9	90	Iannizzotto Antonio
1	70/0001-M	Chemistry	CHIM/07	A	6	60	Vacca Annalisa
1	70/0004-M	Physics 1	FIS/01	A	8	80	Concas Giorgio
1	IN/0155	Integrated Course: Information Processing Systems	ING-INF/05	A	6	60	Marcialis Gian Luca
1	IN/0156	- Module: Fundamentals of Computer Science					
2	IN/0157	- Module: Computer Architectures	ING-INF/05	A	6	60	Marcialis Gian Luca Casula Roberto
2	IN/0079	Geometry and Algebra	MAT/03	A	7	70	Zuddas Fabio
2	70/0005-M	Physics 2	FIS/01	A	7	70	Filippetti Alessio
2	IA/0065	Integrated Course: Human Body Biology	BIO/16 BIO/10 BIO/09	C	4 2 3	40 20 30	Maxia Cristina Floris Sonia Vargiu Romina
2	IN/0038	- Module: Human Anatomy					
2	IN/0012	- Module: Biochemistry					
2	IN/0039	- Module: Fundamentals of Physiology					

**Second year – enrolled student a.y. 2022/23**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0188	Mathematical Analysis 2	MAT/05	A	8	80	Frassu Silvia
1	IN/0236	Integrated Course: Fundamentals of Mechanics and Biomaterials	ING-IND/14 ING-IND/24	B	5	50	Leban Bruno Orrù Roberto
1	IN/0165	- Module: Fundamentals of Mechanics and Biomechanics					
1	IN/0237	- Module: Biomaterials					
1	70/0069-M	Applied Mathematics	MAT/08	A	6	60	Fermo Luisa
1	IA/0067	Integrated Course: Biochemical Engineering	ING-IND/24	B	5	50	Lai Nicola
2	IA/0068	- Module: Fundamentals of Biochemical Engineering					
2	IA/0069	- Module: Applications of Biochemical Engineering	ING-IND/24	B	5	50	Cincotti Alberto
2	IN/0034	Integrated Course: Fundamentals of Information Engineering	ING-INF/04 ING-INF/06	B	5	50	Giua Alessandro Pani Danilo
2	IN/0035	- Module: Fundamentals of Systems Theory					
2	IN/0036	- Module: Electronical Signal Processing					
2	IN/0215	Integrated Course: Electronic Design	ING-INF/01	B	5	50	Barbaro Massimo Palumbo Francesca
2	IN/0216	- Module: Analog Electronics					
2	IN/0217	- Module: Digital Electronics					



**Third year – enrolled student a.y. 2021/22**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/0014-M	Electric Actuators and Converters	ING-IND/32	B	5	50	Gatto Gianluca
1	IN/0212	Integrated Course: Bioelectronics					
1	IN/0213	- Module: Bioelectronics Fundamentals	ING-INF/06	B	5	50	Bonfiglio Annalisa
1	IN/0214	- Module: Bioelectronic Interfaces	ING-INF/06	B	5	50	Bonfiglio Annalisa
1	IA/0188	Integrated Course: Mechanical Bioengineering					
1	IA/0188-1	- Module: Strength of Materials	ING-IND/14	B	5	50	Porta Micaela
1	IA/0188-2	- Module: Design of Medical Devices with Structural Functions	ING-IND/34	B	5	50	Pau Massimiliano
1	IN/0040	Integrated Course: Fundamentals of Clinic and Pathology					
1	IN/0041	- Module: Pathology	MED/08	C	2	20	Ambu Rossano
2	IN/0042	- Module: Internal Medicine	MED/09	C	2	20	Barcellona Doris
2	IN/0044	- Module: Radiology and Nuclear Medicine	MED/36	C	2	20	Saba Luca
2	IA/0148	- Module: Technologies and Instruments in Surgery	MED/18	C	2	20	Restivo Angelo Deidda Simona
2	IA/0189	<i>choose between:</i> Applied Biomechanics	ING-IND/34	B	5	50	Pau Massimiliano
2	IN/0046	Biosensors	ING-INF/06	B	5	50	Spanu Andrea
2	IN/0218	Medical Instrumentation	ING-INF/06	B	5	50	Pani Danilo
1	IA/0191	<i>choose between:</i> Technologies and Numerical Techniques for Clinical Image Processing	ING-INF/02	C	5	50	Fanti Alessandro
2	IN/0048	Electromagnetic Compatibility	ING-INF/02	C	5	50	Fanti Alessandro Mazzarella Giuseppe
2	IN/0049	Power and Electrical Safety in Hospital	ING-IND/33	C	5	50	Pisano Giuditta
2	IA/0190	Data Acquisition Systems	ING-INF/07	C	5	50	Castello Paolo
2	IA/0192	Risk Assessment and Management in Healthcare	ING-IND/33	C	5	50	Pilo Fabrizio G.L. Pisano Giuditta

**Activities rules**

Academic Year Enrolment	If you do not pass:	You cannot take:
2023/24	Physics 1	Physics 2
	I. C.: Human Body Biology	Chemistry
2022/23	Mathematical Analysis 1 Geometry and Algebra Physics 1	All 2nd year exams
	I. C.: Fundamentals of Mechanics and Biomaterials	Chemistry
2021/22	Mathematical Analysis 2 Physics 2	All 3rd year exams

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Electrical, Electronic and Computer Engineering (L-8 & L-9)

*available only the third year*

### Third year – enrolled student a.y. 2021/22

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0023	Integrated Course: Power Electronics and Electrical Power Systems					
	IN/0024	- Module: Power Electronics	ING-IND/32	B/C	6	60	Gatto Gianluca
	IN/0025	- Module: Fundamentals of Electric Power Systems	ING-IND/33	B	6	60	Pilo Fabrizio G.L. Pisano Giuditta
<b>Curriculum Electrical Engineering</b>							
1	70/0068-M	Fluid Machinery and Energy Systems	ING-IND/09	C	6	60	Cocco Daniele
1	IN/0026	Measurements on Power Systems	ING-INF/07	B	6	60	Sulis Sara
2	IN/0006	Electrical Machines	ING-IND/32	B	6	60	Floris Andrea Damiano Alfonso
2	IN/0029	Fundamentals of Electric Power Distribution and Smart Grids	ING-IND/33	B/C	6	60	Pilo Fabrizio G.L. Pisano Giuditta
<b>Curriculum Electronic Engineering</b>							
1	70/0078-M	Digital Systems Design	ING-INF/01	B/C	8	80	Raffo Luigi
1	IN/0027	Semiconductor Physics	FIS/03	C	6	60	Pintus Paolo
2	70/0016-M	Electromagnetic Fields	ING-INF/02	B/C	8	80	Mazzarella Giuseppe
2	IN/0030	Semiconductor Devices	ING-INF/01	C	6	60	Cosseddu Piero
<b>Curriculum Computer Engineering</b>							
1	IN/0031	Databases	ING-INF/05	B/C	6	60	Giacinto Giorgio
1	70/0078-M	Digital Systems Design	ING-INF/01	C	8	80	Raffo Luigi
2	IN/0033	Internet	ING-INF/03	C	6	60	Atzori Luigi
2	IN/0028	Object Oriented Programming Languages	ING-INF/05	B/C	5	50	Demontis Ambra

### Activities rules

Academic Year Enrolment	If you do not pass:	You cannot take:
2021/22	Mathematical Analysis 2 Physics 2	All 3rd year exams

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Architectural Science (L-17)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0050	Architectural Drawing and Representation	ICAR/17	A	8	80	Bagnolo Vincenzo
1	AR/0020	Integrated Course in Mathematics					
	AR/0022	- Module: Geometry	MAT/03	A	5	50	Ratto Andrea
2	AR/0021	- Module: Mathematical Analysis	MAT/05	A	5	50	Mutzu Martis Massimiliano
1	IA/0388	Integrated Course in Foundations of Architecture					
	IA/0390	- Module: Elements of Architectural Design	ICAR/14	C	3	30	Moro Marco
1	IA/0389	- Module: History of 20th Century Architecture	ICAR/18	A	5	50	Schirru Marcello
2	IA/0391	- Module: Constructive and Distributive Features of Buildings	ICAR/10	C	3	30	Mocci Silvia Cadoni Stefano
2	IA/0392	- Module: Digital Representation Techniques for Architecture	ICAR/17	C	3	30	Argiolas Raffaele
1-2	IA/0384	Integrated Laboratory of Architectural Design 1					
	IA/0385	- Module: Architectural and Urban Design 1	ICAR/14	B	10	100	Peghin Giorgio M. (course A) Cocco Giovanni B. (course B)
1-2	IA/0386	- Module: Architecture Technologies 1	ICAR/10	B	5	50	Loddo Gianraffaele (course A) Sanjust Paolo Achenza M. Maddalena (course B)
1-2	IA/0387	History of Ancient, Medieval and Renaissance architecture	ICAR/18	A	8	80	Cadinu Marco
2	IA/0393	Urban and Territorial Geography	M-GGR/02	C	4	40	Memoli Maurizio

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	80/039	History of Architecture 2	ICAR/18	A	8	80	Schirru Marcello
	IA/0164	Integrated Course of Architectural and Environmental Survey and Representation					
1	IA/0165	- Module: Drawing	ICAR/17	A	7	70	Pirinu Andrea
2	IA/0166	- Module: Topography	ICAR/06	C	3	30	Vacca Giuseppina



	IA/0163	Integrated Laboratory of Design and Construction of Architecture 2					
1-2	AR/0028	- Module: Architectural Design 2	ICAR/14	B	10	100	Lecis Marco ( <i>course A</i> ) Cherchi P. Francesco ( <i>course B</i> )
1-2	AR/0029	- Module: Technological Design of Architecture 2	ICAR/10	B	5	50	Cadoni Stefano
1-2	AR/0008	Structural Mechanics/Strength of Materials and Statics	ICAR/08	B	11	110	Reccia Emanuele Cazzani Antonio M.
2	AR/0009	Environmental Technical Physics	ING-IND/11	A	8	80	Ricciu Roberto Frattolillo Andrea
2	80/040	Fundamentals of Urban Planning	ICAR/20	B	5	50	Colavitti Anna Maria

**Third year – enrolled student a.y. 2021/22**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0003	Geodesign	ICAR/20	B	5	50	Campagna Michele
1	80/044	Building Production Processes and Methods	ICAR/11	C	5	50	Quaquero Emanuela
1	80/046	Theory and History of Restoration	ICAR/19	B	7	70	Giannattasio Caterina Pintus Valentina
	AR/0030	Integrated Laboratory of Design and Construction of Architecture 3					
1	AR/0031	- Module: Architectural Design 3	ICAR/14	B	10	100	Faiferri Massimo e Pusceddu Fabrizio ( <i>course A</i> ) Atzeni Carlo ( <i>course B</i> )
2	AR/0032	- Module: Technological Design of Architecture 3	ICAR/10	B	5	50	Marras Francesco
2	IA/0058	Real Estate Appraisal	ICAR/22	B	5	50	Blecic Ivan
2	AR/0002	Structural Design and Analysis	ICAR/09	B	6	60	Mistretta Fausto
2	IA/0161	Urban Planning	ICAR/20	B	5	50	Serra Sergio Colavitti Anna Maria



**Activities rules**

<b>Academic Year Enrolment</b>	<b>If you do not pass:</b>	<b>You cannot take:</b>
2022/23	Architectural Drawing and Representation	Integrated Course of Architectural and Environmental Survey and Representation
	Integrated Course in Mathematics	Structural Mechanics/Strength of Materials and Statics
	History of Architecture 1	History of Architecture 2
2021/22	Structural Mechanics/Strength of Materials	Structural Design and Analysis
	History of Architecture 2	Theory and History of Restoration

All rules are available in the course educational regulation of the year corresponding to your first year of enrolment.



## Techniques for Building Construction and Land Development (L-P01)

*available only the first and the second year*

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0241	Digital Representation Techniques	ICAR/17	B	6	48	Pirinu Andrea
	IA/0238	Integrated course: Mathematical Methods and Physics Principles for Construction and Land Development					
1	IA/0240	- Module: Physics	FIS/01	A	3	24	Bernardini Fabio
1	IA/0239	- Module: Mathematics	MAT/05	A	3	24	Piro Stella
1	IA/0249	Fundamentals of Computer Science, Data Analysis and Statistics	ING-INF/05	A	6	48	Fraschini Matteo
	IA/0245	Integrated course: Building Construction and Restoration					
1	IA/0246	- Module: Architectural Engineering	ICAR/10	B	5	40	Achenza M.Maddalena Desogus Giuseppe Marras Francesco
1	IA/0247	- Module: Architectural design	ICAR/14	B	3	24	Faiferri Massimo Pusceddu Fabrizio
2	IA/0248	- Module: Restoration	ICAR/19	C	3	24	Fiorino Donatella R. Pilia Elisa
	IA/0242	Integrated course: Principles of Structural Mechanics and Design					
2	IA/0243	- Module: Structural Mechanics	ICAR/08	B	3	24	Reccia Emanuele
2	IA/0244	- Module: Structural Design	ICAR/09	B	3	24	Valdes Monica
	IA/0253	Integrated course: Digitalization, BIM and Construction Management					
2	IA/0254	- Module: Digitalization and BIM	ICAR/11	B	4	32	Congiu Eleonora
2	IA/0255	- Module: Management	ICAR/22	B	3	24	Saiu Valeria Blecic Ivan
	IA/0250	Integrated course: Geomatics Techniques for Construction and Land Development					
2	IA/0251	- Module: Building construction	ICAR/06	B	3	24	Vecchi Enrica
2	IA/0252	- Module: Land development	ICAR/06	B	3	24	Vecchi Enrica
2	IA/0256	Building Lab		F	10	120	Congiu Eleonora Saiu Valeria Mura Emanuele



**Second year – enrolled student a.y. 2022/23**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0257	Integrated course: Hydraulic Infrastructures					
1	IA/0259	- Module: Water Engineering	ICAR/02	B	2	16	Saba Andrea
1	IA/0258	- Module: Hydraulics	ICAR/01	B	2	16	Seoni Alessandro
1	IA/0260	Integrated course: Spatial Planning and Infrastructures					
1	IA/0262	- Module: Tools for the Acquisition and Monitoring of Transport Data	ICAR/05	B	2	16	Piras Francesco
1	IA/0261	- Module: Road Monitoring	ICAR/04	B	2	16	Portas Silvia
1	IA/0263	- Module: Digital Tools for Urban Planning	ICAR/20	B	5	40	Garau Chiara Lai Sabrina
1	IA/0265	Investigation, Diagnosis and Monitoring of Constructions Lab		F	10	120	Armas Cristiano Rombi James Valdes Monica
1	IA/0172	Occupational Health and Safety	ING-IND/28	C	6	60	Dentoni Valentina
1	IA/0267	Integrated course: Spatial Planning Legislation and Valuation					
1	IA/0269	- Module: Administrative and Spatial Planning Legislation	IUS/10	B	3	24	Piras Paola
2	IA/0268	- Module: Valuation	ICAR/22	B	3	24	Saiu Valeria
2	IA/0266	Management of Excavation Materials and Construction and Demolition Waste	ICAR/03	B	2	16	Muntoni Aldo
2	IA/0271	Construction Site Lab		F	10	120	Pinna Francesco Vecchi Enrica Cigagna Marco Piccinini Antonio
2	IA/0270	Spatial Planning and Infrastructures Lab		F	10	120	Isola Federica Seoni Alessandro Vincis Antonio



## Industrial Technologies for Energy and Digital Transition (L-P03)

*available only the first year*

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0249	Fundamentals of Computer Science, Data Analysis and Statistics	ING-INF/05	A	6	48	Fraschini Matteo
1	IA/0404	Integrated Course: Principles of Mathematics and Physics					
1	IA/0406	- Module: Physics	FIS/01	A	3	24	Bernardini Fabio
1	IA/0405	- Module: Mathematics	MAT/05	A	3	24	Piro Stella
1	IA/0408	Integrated Course: Measurements and industrial automation					
1	IA/0409	- Module: Elements of measurement theory and industrial instrumentation	ING-INF/07	B	6	48	Muscas Carlo
1	IA/0410	- Module: Basics on control systems	ING-INF/04	B	6	48	Piloni Alessandro
1	IA/0411	Fundamentals of applied thermodynamics	ING-IND/11	C	4	32	Possidente Raffaello
2	IA/0412	Fundamentals of technical drawing and CAD for industrial applications	ING-IND/15	B	6	48	Ambu Rita
<b>Electrical Curriculum</b>							
1	IA/0413	Integrated Course: Industrial Electrotechnics					
1	IA/0414	- Module: Fundamentals of Electrotechnics	ING-IND/31	B	4	32	Aymerich Enrico
1	IA/0415	- Modulo: Applications of Electrotechnics	ING-IND/31	B	2	16	Aymerich Enrico
2	IA/0417	Industrial electrical components and installations	ING-IND/33	B	5	40	Ghiani Emilio Pisano Giuditta
2	IA/0416	Electrical and electronic devices for energy conversion	ING-IND/32	B	5	40	Gatto Gianluca
2	IA/0418	Integrated Course: IoT technologies and devices for industrial applications					
2	IA/0419	- Module: IoT protocols and virtualization	ING-INF/03	C	3	24	Murrone Maurizio
2	IA/0420	- Module: Radiolink in industrial environments	ING-INF/02	C	3	24	Lodi Matteo Bruno
2	IA/0421	- Module: Microcontroller-based platforms	ING-INF/01	C	2	16	Scrugli Matteo A.



<b>Mechanical Curriculum</b>							
1	IA/0414	Fundamentals of Electrotechnics	ING-IND/31	C	4	32	Aymerich Enrico
	IA/0422	Integrated Course: Fluid machinery and energy systems					
2	IA/0423	- Module: Fundamentals of fluid machinery	ING-IND/08	B	4	32	Cambuli Francesco
2	IA/0424	- Module: Fundamentals of energy systems	ING-IND/09	B	4	32	Marchionni Matteo
2	IA/0426	Fundamentals of Industrial Processes	ING-IND/24	B	6	48	Cao Giacomo
2	IA/0425	Civil and industrial mechanical systems	ING-IND/17	B	6	48	Orrù Pier Francesco



## Architecture (LM-4)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
	80/052	Integrated Course: History of Contemporary Art and Architecture					
1	80/052-1	- Module: History of Contemporary Architecture	ICAR/18	B	5	50	Mais Stefano
1	80/052/2	- Module: History of Contemporary Art	L-ART/03	C	3	30	Salis Mauro
	AR/0010	Integrated Laboratory of Survey and Restoration					
1	AR/0010-1	- Module: Survey	ICAR/17	B	5	50	Bagnolo Vincenzo
1	AR/0010-2	- Module: Restoration	ICAR/19	B	5	50	Fiorino Donatella
	IA/0079	Integrated Course: Architectural and Urban Theory and Design Studio					
1	IA/0079-1	- Module: Theory and Design	ICAR/14	B	6	60	Chiri Giovanni M. Lecis Marco
2	IA/0079-2	- Module: Design	ICAR/14	B	6	60	Chiri Giovanni M.
	IA/0080	Integrated Laboratory of Technological Design					
2	IA/0080-1	- Module: BIM	ICAR/11	C	3	30	Quaquero Emanuela
2	IA/0080-2	- Module: Structural design	ICAR/09	B	5	50	Fenu Luigi Solinas Davide
2	IA/0080-3	- Module: Innovative Technologies for Architecture	ICAR/10	B	5	50	Atzeni Carlo
2	IA/0080-4	- Module: Building thermophysics	ING-IND/11	B	5	50	Ricciu Roberto
		<i>One choice among:</i>					
1	IA/0403	Museum Exhibit Design	ICAR/13	C	4	40	Sanjust Paolo
1	IA/0160	Environmental and Architectural Psychology	M-PSI/05	C	4	40	Fornara Ferdinando
2	IA/0157	Film Aesthetics	L-ART/06	C	4	40	Floris Antioco
2	IA/0081	Public Space and Mobility	ICAR/04	C	4	40	Pinna Francesco



Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
	IA/0200	Integrated Course: Urban Planning, Evaluation and Social Research					
1	IA/0201	- Module: Urban Planning	ICAR/20	B	5	50	Colavitti Anna Maria
1	IA/0202	- Module: Social Research	SPS/10	B	5	50	Cois Ester
1	IA/0203	- Module: Evaluation of Plans, Projects and Public Policy	ICAR/22	B	5	50	Blecic Ivan
		<i>One choice among:</i>					
1	IA/0086	Landscape Architecture	ICAR/15	C	4	40	Dessi Adriano
1	IA/0084	Sustainable Materials and Technologies for Architecture	ING-IND/22	C	4	40	Meloni Paola
2	IA/0085	Interior Design	ICAR/16	C	4	40	Chiri Giovanni M.
2	IA/0159	Non-Destructive Testing of Artefacts and Structures	GEO/11	C	4	40	Vignoli Giulio
<b>Curriculum Architecture, City and Landscape</b>							
1	IA/0088	Social and Landscape Geography	M-GGR/02	C	4	40	Memoli Maurizio
		<i>choose between:</i>					
1	IA/0082	Accessibility for Public and Urban Spaces	ICAR/04	C	4	40	Pinna Francesco
1	IA/0091	Sustainable Mobility Planning	ICAR/05	C	4	40	Piras Francesco
2	IA/0179	Architectural Design: Theory and Criticism	ICAR/14	C	3	30	Lecis Marco
	IA/0309	Integrated Laboratory of Architecture, City and Landscape Design Studio					
2	IA/0310	-Module: Architectural and Urban Design	ICAR/14	B	5	50	Peghin Giorgio M.
2	IA/0311	-Module: Landscape	ICAR/15	C	5	50	Dessi Adriano
		<i>choose between:</i>					
2	IA/0093	Architectural Representation and Visual Communication	ICAR/17	C	4	40	Bagnolo Vincenzo
2	IA/0089	History of City and Landscape Development	ICAR/18	C	4	40	Cadinu Marco



<b>Curriculum Historical Architecture and Design</b>							
1	IA/0312	Integrated Course: Architectural Heritage and Public Space					
1	IA/0314	- Module: Restoration	ICAR/19	C	2	20	Giannattasio Caterina
1	IA/0313	- Module: History of Architecture	ICAR/18	C	2	20	Cadinu Marco
		<i>choose between:</i>					
1	IA/0403	Museum Exhibit Design	ICAR/13	C	4	40	Sanjust Paolo
1	IA/0097	Recovery of Traditional Architecture in Historical Town Centres	ICAR/10	C	4	40	Mocci Silvia
2	IA/0098	Recovery of Modern Architecture	ICAR/10	C	4	40	Sanjust Paolo
		<i>Choose between:</i>					
1	IA/0100	Restoration Site	ICAR/19	C	4	40	Fiorino Donatella
1	IA/0101	Protection of Historical Landscapes	ICAR/19	C	4	40	Pintus Valentina
2	IA/0096	Structural Analysis of Historical Architectures	ICAR/08	C	3	30	Reccia Emanuele
	IA/0094	Integrated Laboratory of Architecture and Restoration Design Studio					
2	IA/0305	- Module: Architectural and Urban Design	ICAR/14	B	5	50	Cocco G. Battista
2	IA/0306	- Module: Restoration	ICAR/19	B	5	50	Giannattasio Caterina
<b>Curriculum Architecture, Building and Sustainability</b>							
1	IA/0105	Structural Architecture	ICAR/09	C	4	40	Fenu Luigi
1	IA/0103	Earthen Architecture. Building Cultures and Sustainable Development	ICAR/10	C	4	40	Achenza Maddalena
		<i>One choice among:</i>					
1	IA/0106	Sustainable Energy in Building Systems	ING-IND/11	C	4	40	Ricciu Roberto
1	IA/0107	Climate Control Strategies within Heritage Buildings	ING-IND/11	C	4	40	Frattolillo Andrea
1	IA/0108	Urban Micro-Climatology	ICAR/01	C	4	40	Ferrari Simone
	IA/0102	Integrated Laboratory of Sustainable Architecture Design Studio					
2	IA/0307	- Module: Technical Architecture	ICAR/10	B	5	50	Achenza Maddalena
2	IA/0308	- Module: Architectural and Urban Design	ICAR/14	B	5	50	Cherchi P. Francesco
2	IA/0109	Safety and Project Management at Construction Sites	ING-IND/28	C	3	30	Dentoni Valentina







## Chemical and Biotechnological Process Engineering (LM-22)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0154	Applied Statistics for Industrial Engineering	ING-IND/26	B	9	90	Grosso Massimiliano
1	70/LM-0072	Principles of Chemical Engineering and Processes	ING-IND/24	B	9	90	Orrù Roberto
2	IA/0044	Integrated Course: Industrial and Energetic Processes					
2	IA/0045	Module: Industrial Processes	ING-IND/27	B	6	60	Mais Laura
2	IA/0277	Module: Hydrogen Technology and Fuel Cells	ING-IND/27	B	6	60	Mascia Michele
2	70/LM-0078	Environmental Conscious Energy and Chemical Processes	ING-IND/25	B	9	90	Mascia Michele


### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0240/EN	Process Modeling and Simulation 	ING-IND/26	B	9	90	Baratti Roberto Tronci Stefania
1	IA/0187/EN	Chemical and Biological Reactors 	ING-IND/24	B	9	90	Cincotti Alberto
1	IA/0188/EN	Safety and environmental chemical engineering with design project 	ING-IND/25	B	12	120	Concas Alessandro
2	IN/0241/EN	Advanced Systems of Process Control 	ING-IND/26	B	9	90	Tronci Stefania Grosso Massimiliano

### enrolled student a.y. 2023/24 e 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1-2		Courses from Table 1		C	18		

### Table 1. Three courses among:

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/LM-0039	Fundamentals of Machine Design	ING-IND/14	C	6		Leban Bruno
1	IA/0033	Industrial Energy Technologies	ING-IND/09	C	6		Cau Giorgio
1	IN/0158	Biochemistry	BIO/10	C	6		Fais Antonella
1	13174	Project Management	SECS-P/08	C	6		Dessi Cinzia
1	IA/0301/EN	Surface Forces and Adsorption 	CHIM/02	C	6		Parsons Drew F.
2	IN/0233	Chemistry and Technology of Food	CHIM/10	C	6		Angioni Alberto
2	2487	Microbiology	MED/07	C	6		De Logu Alessandro



**Civil Engineering (LM-23)**

**First year – enrolled student a.y. 2023/24**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0003	Geodesign	ICAR/20	C	6	60	Campagna Michele
	IA/0211	Integrated Course: Theory and Computational mechanics of structures					
1	IA/0181	- Module: Theory of Structures	ICAR/08	B	6	60	Spagnuolo Mario
2	IA/0209/EN	- Modulo: Computational mechanics of structures 	ICAR/08	B	6	60	Eremeev Victor
	IN/0141	Integrated Course: Construction of Road, Railways and Airport 2 and Transportation Planning					
1	IN/0142	- Module: Construction of Road, Railways and Airport 2	ICAR/04	B	6	60	Coni Mauro
2	IN/0143	- Module: Transportation Planning	ICAR/05	B	6	60	Meloni Italo
<b>Curriculum Hydraulics</b>							
1	IA/0070	Numerical Calculus	MAT/08	C	6	60	Buccini Alessandro
	IN/0144	Integrated Course: Hydraulics 2 and Maritime Hydraulics					
2	IN/0145	- Module: Hydraulics 2	ICAR/01	B	6	60	Badas Maria Grazia
2	IN/0146	- Module: Maritime Hydraulics	ICAR/01	B	6	60	Badas Maria Grazia
<b>Curriculum Sustainable Smart Building and Constructions</b>							
1	70/LM-0066	Mathematical Models and Methods in Engineering	MAT/09	C	6	60	Wolfler Calvo Roberto
2	IA/0119	Sustainable Building: Bioclimatic Design	ICAR/10	B	6	60	Desogus Giuseppe Achenza M. Maddalena
2	IN/0124	<i>One choice among:</i> Thermal HVAC Systems	ING-IND/11	C	6	60	Mastino Costantino C.
2	IA/0058	Real Estate Appraisal	ICAR/22	C	6	60	Blecic Ivan
2	IA/0120	Sustainable Spatial Planning	ICAR/20	C	6	60	Balletto Ginevra
<b>Curriculum Structures</b>							
1	IA/0070	Numerical Calculus	MAT/08	C	6	60	Buccini Alessandro
2	IN/0194	Theory and Design of Steel Construction	ICAR/09	B	6	60	Fenu Luigi
<b>Curriculum Transportations</b>							
1	70/LM-0066	Mathematical Models and Methods in Engineering	MAT/09	C	6	60	Wolfler Calvo Roberto




	IA/0381	Integrated Course: Transport System Design and Theory and Technology Traffic Flow					
2	IA/0382	- Module: Transport System Design	ICAR/05	B	6	60	Fancello Gianfranco
2	IA/0380	- Module: Theory and Technique of Road Traffic Flow	ICAR/05	B	6	60	Olivo Alessandro

**Second year – enrolled student a.y. 2022/23**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/LM-0040	Foundations and Earth Retaining Structure	ICAR/07	C	6	60	Soccolato Fabio M.
1	70/LM-0077	Watershed and Stream Restoration Engineering	ICAR/02	B	6	60	Montaldo Nicola
	IA/0210	Integrated Course: Design, Control and Inspection of Structures and Buildings in Wood and Masonry					
1	IA/0182	- Module: Design, Monitoring and Inspection of Structures	ICAR/09	B	6	60	Stochino Flavio
2	IA/0184	- Module: Design of Timber and Masonry Structures	ICAR/09	B	6	60	Meloni Daniel
<b>Curriculum Hydraulics</b>							
1	IN/0189	Hydrological Models	ICAR/02	B	6	60	Deidda Roberto
2	IN/0190	Water Systems Planning and Management	ICAR/02	B	6	60	Cristiano Elena
2	IA/0062	Maritime Engineering	ICAR/02	B	6	60	Ruju Andrea
<b>Curriculum Sustainable Smart Building and Constructions</b>							
		<i>One choice among:</i>					
1	IA/0212	Urban Microclimatic Design and Natural Building Ventilation	ICAR/01	B	6	60	Ferrari Simone
1	IA/0121	Hydraulic services design	ICAR/02	B	6	60	Saba Andrea
1	IA/0122	Structural diagnosis and reinforcement of buildings	ICAR/09	B	6	60	Sassu Mauro Puppio Mario Lucio
	IA/0147	Integrated Course: Sustainable building					
2	IA/0147-1	- Module: Energy performance of building	ING-IND/11	C	6	60	Frattolillo Andrea
2	IA/0147-2	- Module: Building Information Modeling: from knowledge to integrated design	ICAR/11	B	6	60	Quaquero Emanuela
2	IA/0146	Integrated building design lab - Sustainable building		F	3	40	Quaquero Emanuela



Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
<b>Curriculum Structures</b>							
1	IA/0186/EN	Structural stability and limit analysis of structures 	ICAR/08	B	6	60	Eremeev Victor
1	IA/0214	Integrated Course: Dynamics of Structures and Seismic Engineering					
1	IN/0055	- Module: Dynamics of structures	ICAR/08	B	6	60	Porcu Maria Cristina
2	IA/0215	- Module: Seismic Engineering	ICAR/09	B	6	60	Sassu Mauro Stochino Flavio
2	IA/0185	Design of Bridges and Special Structures	ICAR/09	B	6	60	Mistretta Fausto
<b>Curriculum Transportations</b>							
2	70/LM-0095	Road, Airfield and Railway Pavements	ICAR/04	B	6	60	Coni Mauro
2	70/LM-0105	Logistic and Freight Transportation	ICAR/05	B	6	60	Fancello Gianfranco
		<i>choose between:</i>					
2	70/LM-0106	Urban and Metropolitan Transport	ICAR/05	B	6	60	Sottile Eleonora
2	70/LM-0104	Rail Transport	ICAR/05	B	6	60	Olivo Alessandro




**Other optional activities**

Sem	Code course	Laboratories	SSD	TAF	ECTS	H	Teacher
1	IN/0154	Traffic Simulation Model Laboratory	ICAR/05	F	3	45	Sottile Eleonora
1	IN/0152	Structures Finite Element Modeling	ICAR/09	F	3	45	Sassu Mauro
2	IA/0064	Laboratory of Maritime Hydrodynamics Modelling	ICAR/01	F	3	45	Balzano Andrea
2	IN/0153	Laboratory of Integrated Design of Roads, Railways and Airports	ICAR/04	F	3	45	Maltinti Francesca
2	IN/0222	Watershed and Stream Restoration Engineering Laboratory	ICAR/02	F	3	45	Saba Andrea
2	IN/0151	Structural Reconditioning: Analysis, Diagnosis, Retrofitting	ICAR/09	F	3	45	Concu Giovanna




## Internet Engineering (LM-27)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
	IA/0359	Integrated Course: Computer Technologies and Law					
1	IA/0123/EN	- Module: Operating Systems 	ING-INF/05	C	7	70	Giacinto Giorgio Regano Lonardo
1	IA/0217	- Module: Legal Computer Science	IUS/20	C	4	40	Farina Massimo
	IA/0358	Integrated Course: Access Technologies and Coding					
1	IA/0076	- Module: Codes	ING-INF/03	B	6	60	Giusto Daniele
2	IA/0018	- Module: Access Networks	ING-INF/03	B	6	60	Murroni Maurizio
	IA/0360	Integrated Course: Secure and Programmable Networks					
1	IA/0218/EN	- Module: Network security 	ING-INF/03	C	4	40	Martalò Marco
1	IA/0361	- Module: Programmable Networks	ING-INF/03	B	6	60	Atzori Luigi
2	IA/0219	- Module: Network security lab	ING-INF/03	F	2	20	Martalò Marco
	IA/0362	Integrated Course: Wireless Systems					
1	IA/0363	- Module: Wireless Devices Design	ING-INF/02	B	5	50	Casula G. Andrea
2	IA/0136	- Module: Pervasive wireless systems	ING-INF/02	B	5	50	Mazzarella Giuseppe
2	IA/0134/EN	Stochastic models 	ING-INF/04	C	5	50	Pilloni Alessandro
2	IA/0364	Product management		F	2	20	Giusto Daniele

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0167	Cloud networking and data analysis	ING-INF/03	C	5	50	Floris Alessandro
1	IA/0020/EN	Internet of things 	ING-INF/03	B	6	60	Nitti Michele
	IA/0128	Integrated Course: Pervasive wireless communications					
1	IA/0135	- Module: Radiopropagation in wireless communications	ING-INF/02	B	5	50	Casula G. Andrea
2	IA/0136	- Module: Pervasive wireless systems	ING-INF/02	B	5	50	Mazzarella Giuseppe
2	IA/0178	Advanced networking	ING-INF/03	B	6	60	Atzori Luigi



		<i>Choose between:</i>						
1	IA/0125/EN	Advanced embedded systems		ING-INF/01	C	8	80	Meloni Paolo
1	IA/0124	Integrated Course: Smart systems						
1	IA/0218/EN	- Module: Network security		ING-INF/03	C	4	40	Martalò Marco
2	IA/0022	- Module: Smart housing		ING-INF/03	C	4	40	Pilloni Virginia

### Other optional activities

Sem	Code course	Laboratories	SSD	TAF	ECTS	H	Teacher
2	IA/0030	iOS Programming	ING-INF/03	F	2	20	Giusto Daniele
2	IA/0208	Project management and team working	ING-INF/03	F	4	40	Murroni Maurizio
2	IA/0152	Digital forensics	ING-INF/03	F	3	30	Farina Massimo



## Electrical Engineering (LM-28)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/LM-0064	Measurements for Electric Energy	ING-INF/07	B	9	90	Sulis Sara Muscas Carlo
1	IA/0172	Occupational Health and Safety	ING-IND/28	C	6	60	Dentoni Valentina
	IN/0115	Integrated Course: Power Systems: Analysis, Dynamics and Stability					
1	IN/0116	- Module: Power Systems Analysis and Control	ING-IND/33	B	6	60	Celli Gianni
2	IN/0117	- Module: Power Systems Dynamics and Stability	ING-IND/33	B	6	60	Celli Gianni
	IN/0125	Integrated Course: Electrical Energy Management and Electrical Vehicles					
1	IN/0127	- Module: Electrical Vehicles	ING-IND/32	B	5	50	Porru Mario
2	IN/0126	- Module: Electrical Energy Management	ING-IND/32	B	5	50	Damiano Alfonso Porru Mario
2	70/LM-0003	Analysis and Control of MIMO Systems	ING-INF/04	C	6	60	Usai Elio



### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/LM-0052	Power Systems Generation and Economics	ING-IND/33	B	9	90	Ghiani Emilio Pilo Fabrizio G.L.
1	70/LM-0032	Applied Electromagnetism in Electrical and Energy Engineering	ING-IND/31	B	9	90	Sias Giuliana
	IA/0113	Integrated Course: Design of Signal Processing Systems					
1	IA/0114	- Module: Design of Signal Processing Circuits	ING-IND/31	B	6	60	Cannas Barbara
2	IA/0139/EN	- Modulo: Data driven models for system engineering	ING-IND/31	B	6	60	Montisci Augusto
	IA/0008	Integrated Course: Electric Energy Conversion and Propulsion Systems					
2	IA/0009	- Module: Static Electric Energy Conversion and Electromagnetic Compatibility	ING-IND/32	B	6	60	Gatto Gianluca Kumat Amir
2	IA/0010	- Module: Electric Drives and Propulsion Systems	ING-IND/32	B	6	60	Serpi Alessandro





## Electronic Engineering (LM-29)


### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
	IA/0174	Integrated Course: Electronic Systems and Components					
1	IA/0143	- Module: Reliability of Electronic Components	ING-INF/01	B	5	50	Mura Giovanna
1	IA/0139	- Module: Microcontroller-Based Systems	ING-INF/01	B	6	60	Meloni Paolo
1	IA/0145	- Module: Radio-Frequency Planar Circuits	ING-INF/02	B	5	50	Montisci Giorgio
2	70/LM-0088	Automatic Measurement Systems	ING-INF/07	B	6	60	Pegoraro Paolo A.
	IA/0173	Integrated Course: Control and Wireless Communication Systems					
2	IA/0136	- Module: Pervasive Wireless Systems	ING-INF/02	B	5	50	Mazzarella Giuseppe
2	IA/0140	- Module: Wireless Networks Access Technologies	ING-INF/03	C	3	30	Murrone Maurizio
2	IA/0141	- Module: Digital Control	ING-INF/04	C	3	30	Pisano Alessandro Giua Alessandro
	IN/0200	Integrated Course: Integrated Circuits					
1	IN/0201	- Module: Digital Integrated Circuits	ING-INF/01	B	5	50	Barbaro Massimo
2	IN/0202	- Module: Analog Integrated Circuits	ING-INF/01	B	5	50	Barbaro Massimo
<b>Curriculum Embedded Electronics</b>							
1	IA/0123/EN	Operating Systems 	ING-INF/05	C	7	70	Giacinto Giorgio Regano Leonardo
<b>Curriculum Electronic Technologies for Emerging Applications</b>							
1	IA/0154/EN	Nanoelectronics 	FIS/03	C	5	50	Melis Claudio

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0146/EN	Mixed-Signal Circuits and Systems 	ING-INF/01	B	6	60	Leone Gianluca Barbaro Massimo Collu Riccardo
<b>Curriculum Embedded Electronics </b>							
1	IA/0125/EN	Advanced Embedded Systems	ING-INF/01	B	8	80	Meloni Paolo
1	IA/0205/EN	Artificial Intelligence	ING-INF/05	C	6	60	Fumera Giorgio Demontis Ambra
1	IA/0020/EN	Internet of Things	ING-INF/03	C	6	60	Nitti Michele



2	IA/0147/EN	Analysis and Control of Cyber-Physical Systems	ING-INF/04	C	6	60	Giua Alessandro Ma Ziyue
2	IA/0148/EN	Cyber-Physical System Architectures	ING-INF/01	B	5	50	Palumbo Francesca Bodano Emanuele Morelli Andrea
<b>Curriculum Electronic Technologies for Emerging Applications</b>							
1	IA/0153/EN	Data Acquisition Technologies	ING-INF/07	B	6	60	Castello Paolo Pegoraro Paolo A.
1	IA/0149/EN	Optoelectronics, Diagnostics and Aerospace Applications	ING-INF/01	B	7	70	Mura Giovanna
1	IA/0151/EN	Wearable and Flexible Electronics	ING-INF/01	B	7	70	Cosseddu Piero
2	IA/0152/EN	Biosensors and Bioelectronics	ING-INF/06	C	6	60	Lai Stefano
2	IA/0189/EN	Microwave systems and sensors	ING-INF/02	B	7	70	Montisci Giorgio



## Energetic Engineering (LM-30)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/LM-0032	Applied Electromagnetism in Electrical and Energy Engineering	ING-IND/31	C	6	60	Sias Giuliana
	IN/0122	Integrated Course: Energetics and Thermal Hvac Systems					
1	IN/0123	- Module: Energetics	ING-IND/11	B	6	60	Frattolillo Andrea
2	IN/0124	- Module: Thermal Hvac Systems	ING-IND/11	B	6	60	Mastino Costantino C.
2	70/LM-0038	Nuclear Reactor Physics	FIS/04	C	6	60	Cicalò Corrado
2	70/LM-0043	Exploration Geophysics	GEO/11	C	6	60	Vignoli Giulio
		<i>3 courses among:</i>					
1	70/LM-0010	Automatic Control Systems	ING-INF/04	C	6	60	Pisano Alessandro
1	70/0068-M	Fluid Machinery and Energy Systems	ING-IND/09	C	6	60	Cocco Daniele
1	IA/0278	Electrical Machines and Drives	ING-IND/32	C	6	60	Damiano Alfonso Serpi Alessandro
1	IA/0361	Programmable Networks	ING-INF/03	C	6	60	Atzori Luigi
2	IA/0040	Environmental Impact Energy Systems	ING-IND/09	C	6	60	Tola Vittorio
2	IN/0033	Internet	ING-INF/03	C	6	60	Atzori Luigi
2	IA/0376	Building Energy Performance	ING-IND/11	C	6	60	Frattolillo Andrea
2	IN/0029	Fundamentals of Electric Power Distribution and Smart Grids	ING-IND/33	C	6	60	Pilo Fabrizio G.L. Pisano Giuditta
2	IA/0277	Hydrogen Technology and Fuel Cells	ING-IND/27	C	6	60	Mascia Michele
2	IN/0143	Transportation Planning	ICAR/05	C	6	60	Meloni Italo




**Second year – enrolled student a.y. 2022/23**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	70/LM-0052	Power Systems Generation and Economics	ING-IND/33	B	9	90	Ghiani Emilio Pilo Fabrizio G.L.
1	IN/0125	Integrated Course: Electrical Energy Management and Electrical Vehicles					
1	IN/0127	- Module: Electrical Vehicles	ING-IND/32	B	5	50	Porru Mario
2	IN/0126	- Module: Electrical Energy Management	ING-IND/32	B	5	50	Porru Mario Damiano Alfonso
1	IA/0032	Integrated Course: Renewable and Industrial Energy Technologies					
1	IA/0276	- Module: Advanced Energy Systems	ING-IND/09	B	6	60	Cau Giorgio
2	70/LM-0098	- Module: Renewable Energy Technologies	ING-IND/09	B	6	60	Cocco Daniele
2	IA/0034	EMC and Power Electronic Energy Conversion	ING-IND/32	B	6	60	Gatto Gianluca Kumat Amir

**Other available activities**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0037	Electric Drives for Electric Propulsion Lab	ING-IND/32	F	3	30	Serpi Alessandro
1	IN/0154	Traffic Simulation Model Laboratory	ICAR/05	F	3	45	Sottile Eleonora
1	IN/0131	Modeling and Simulation of Energy Systems	ING-IND/09	F	3	30	Petrollese Mario
1	13174	Project Management	SECS-P/08	F	4	36	Dessi Cinzia
1	IN/0066	Symulation of Dynamical Systems with Matlab-Simulink	ING-INF/04	F	3	30	Pisano Alessandro
1	IA/0279	Technologies for Energy Efficiency	ING-IND/09	F	3	30	Petrollese Mario
2	IA/0175	Control of Energy Systems	ING-INF/04	F	3	30	Pisano Alessandro
2	IA/0035	Electrical Energy Management Systems Lab	ING-IND/32	F	2	20	Damiano Alfonso
2	IA/0043	Smart Grid Lab	ING-IND/33	F	2	20	Ruggeri Simona



**Computer Engineering, Cybersecurity and Artificial Intelligence  
(LM-32) **

**First year – enrolled student a.y. 2023/24**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0113/EN	Industrial Software Development	ING-INF/05	B	8	80	Biggio Battista Didaci Luca
1	IA/0123/EN	Operating Systems	ING-INF/05	B	7	70	Giacinto Giorgio Regano Leonardo
1	IA/0115/EN	Supervisory control and monitoring	ING-INF/04	B	9	90	Seatzu Carla Usai Elio
1	IA/0114/EN	Integrated Course: Intelligent Systems					
	IA/0205/EN	- Module: Artificial Intelligence	ING-INF/05	B	6	60	Fumera Giorgio Demontis Ambra
2	IA/0013/EN	- Module: Machine Learning	ING-INF/05	B	6	60	Biggio Battista Roli Fabio
2	IA/0116/EN	Cybersecurity Technologies and Risk Management	ING-INF/05	B	8	80	Giacinto Giorgio Fumera Giorgio
2	IA/0117/EN	Fault diagnosis and estimation in dynamical systems	ING-INF/04	B	5	50	Franceschelli Mauro

**Second year – enrolled student a.y. 2022/23**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
	IA/0124/EN	Integrated Course: Embedded Systems					
1	IA/0125/EN	- Module: Advanced Embedded Systems	ING-INF/01	C	8	80	Meloni Paolo
1	IA/0020/EN	- Module: Internet of Things	ING-INF/03	C	6	60	Nitti Michele
	IA/0281/EN	Integrated Course: Network and application security					
1	IA/0218/EN	- Module: Network security	ING-INF/03	C	4	40	Martalò Marco
1-2	IA/0127/EN	- Module: Web Security and Malware Analysis	ING-INF/05	B	6	60	Maiorca Davide
	IA/0128/EN	Integrated Course: Computer Forensics					
2	IA/0129/EN	- Module: Computer Forensics Techniques	ING-INF/05	B	5	50	Maiorca Davide Bonu Alessandro Savoldi Luca
2	IA/0130/EN	- Module: Computer Law	IUS/20	C	5	50	Farina Massimo
		<i>one choice among:</i>					
1	IA/0207/EN	Machine learning security	ING-INF/05	B	5	50	Biggio Battista Roli Fabio
2	IA/0131/EN	Biometric Technologies and Behavioural Security	ING-INF/05	B	5	50	Marcialis Gian Luca



2	IA/0140/EN	Networked control systems and security	ING-INF/04	B	5	50	Franceschelli Mauro
2	IA/0134/EN	Stochastic Models	ING-INF/04	B	5	50	Pilloni Alessandro

**enrolled student a.y. 2023/24 e 2022/23**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1-2		Courses from Table 1		C	6		

**Table 1. One course among:**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
<b>1<sup>st</sup> year</b>							
	IA/0118/EN	Integrated Course: Smart Grid and Critical Infrastructures					
2	IA/0119/EN	- Module: Industrial Informatics for energy storage systems	ING-IND/32	C	2	20	Damiano Alfonso
2	IA/0120/EN	- Module: Critical infrastructures for innovative power distribution	ING-IND/33	C	2	20	Ruggeri Simona
2	IA/0121/EN	- Module: Measurements and Cybersecurity for Smart Grid	ING-INF/07	C	2	20	Pegoraro Paolo A.
2	IA/0139/EN	Data driven models for system engineering	ING-IND/31	C	6	60	Montisci Augusto
<b>2<sup>nd</sup> year</b>							
1	IA/0122/EN	Physical-layer techniques for Wireless communication security	ING-INF/02	C	6	60	Mazzarella Giuseppe



## Mechanical Engineering (LM-33)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0227	Mechanics of Materials	ING-IND/14	B	6	60	Aymerich Francesco
1	70/LM-0090	Manufacturing Systems	ING-IND/16	B	6	60	Buonadonna Pasquale
1	IA/0072	Integrated Course: Industrial Systems - Module: Industrial Production Systems Management	ING-IND/17	B	6	60	Pilloni Maria Teresa
2	IA/0327						
2	IA/0216	Mechatronics	ING-IND/13	B	9	90	Rea Pierluigi
1	70/LM-0056	<i>Taf B Course to chose</i> Finite Elements Analysis	ING-IND/14	B	6	60	Bertolino Filippo
2	IA/0176	Maintenance Management for Industrial Systems	ING-IND/17	B	6	60	Arena Simone
2	IN/0065	Mechanics of Composite Materials	ING-IND/14	B	6	60	Aymerich Francesco
2	IA/0204	Industrial Robotics	ING-IND/13	B	6	60	Ruggiu Maurizio Rea Pierluigi
2	70/LM-0098	Renewable Energy Technologies	ING-IND/09	B	6	60	Cocco Daniele
1	70/LM-0010	<i>Taf C Course to chose</i> Automatic Control Systems	ING-INF/04	C	6	60	Pisano Alessandro
1	IA/0070	Numerical Calculus	MAT/08	C	6	60	Fermo Luisa
2	IN/0124	Thermal HVAC Systems	ING-IND/11	C	6	60	Mastino Costantino C.
2	IA/0205	Economic and Management Engineering	ING-IND/35	C	6	60	Morea Donato

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0033	Industrial Energy Technologies	ING-IND/09	B	9	90	Cau Giorgio Petrollese Mario
2	IA/0039	Design of Fluid Machinery	ING-IND/08	B	9	90	Ghisu Tiziano Puddu Pierpaolo
1	IA/0150	<i>Taf B Course to chose</i> Management of Energy Processes	ING-IND/09	B	6	60	Tola Vittorio
1	IN/0129	Industrial Quality Management	ING-IND/16	B	6	60	El Methedi Mohamad
1	IN/0228	Experimental Mechanics	ING-IND/14	B	6	60	Baldi Antonio
1	IN/0064	Computational Modeling of Fluid Systems	ING-IND/08	B	6	60	Ghisu Tiziano
2	IA/0040	Environmental Impact Energy Systems	ING-IND/09	B	6	60	Tola Vittorio
2	70/LM-0096	Experimentation in Fluid Machines	ING-IND/08	B	6	60	Cambuli Francesco



		<i>Taf C Course to chose</i>					
1	13174	Project management	SECS-P/08	C	6	36	Dessi Cinzia
1	2582	Business Organization	SECS-P/10	C	6	36	Pinna Roberta
1	IA/0278	Electrical Machines and Drives	ING-IND/32	C	6	60	Damiano Alfonso Serpi Alessandro
2	IA/0206	Advanced Theory of Structures	ICAR/08	C	6	60	Brun Michele

**Other available activities**

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IN/0131	Modeling and Simulation of Energy Systems	ING-IND/09	F	3	30	Petrollese Mario
1	IN/0066	Symulation of Dynamical Systems with Matlab-Simulink	ING-INF/04	F	3	30	Pisano Alessandro
2	IA/0177	Introduction to Structural Dynamics	ING-IND/14	F	3	30	Bertolino Filippo
2	IN/0130	Nondestructive Testing	ING-IND/14	F	3	30	Pau Massimiliano
2	IN/0229	Mechanical Design Project	ICAR/08	F	3	30	Carta Giorgio



## Environmental Engineering for Sustainable Development (LM-35)

### First year – enrolled student a.y. 2023/24

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
1	IA/0155	Numerical Computing: Methods, Models and Algorithm	MAT/08	C	6	60	Fermo Luisa
1	IA/0156	Scientific Computing Workshop	MAT/08	F	3	30	Rodriguez Giuseppe
1	70/LM-0044	Environmental Geoengineering	ING-IND/28	B	6	60	Grosso Battista
1	70/LM-0048	Environmental Hydraulics	ICAR/01	B	6	60	Querzoli Giorgio
1	IN/0133	Integrated Course: Remediation and Chemical-Physical Treatment of Soils					
1	IN/0135	- Module: Chemical-Physical Treatment of Soils	ING-IND/29	B	6	60	Tilocca M. Caterina
2	IN/0134	- Module: Contaminated Sites Remediation	ICAR/03	B	6	60	Muntoni Aldo
2	IA/0315	Geodesign Lab	ICAR/20	F	3	50	Campagna Michele
2	70/LM-0042	Applied Geophysics	GEO/11	B	6	60	Deidda Gian Piero
2	70/LM-0050	Hydrogeology	GEO/05	B	6	60	Uras Gabriele Carletti Alberto
2	IN/0132	Impact Assessment and Environmental Rehabilitation	ING-IND/28	B	6	60	Massacci Giorgio

### Second year – enrolled student a.y. 2022/23

Sem	Code course	Teaching course	SSD	TAF	ECTS	H	Teacher
		<i>one choice among:</i>					
1	70/LM-0040	Foundations and Earth Retaining Structures	ICAR/07	C	6	60	Soccodato Fabio M.
1	IA/0316	Remote Sensing for Environment Monitoring and Modelling	ICAR/06	C	6	60	Vacca Giuseppina
1	IN/0193	Recovery of Secondary Raw Materials	ING-IND/29	C	6	60	Surracco Marco
1	IA/0317	Urban and Regional Sustainability: Smart Cities and Ecosystem Services in Planning	ICAR/20	C	6	60	Garau Chiara Lai Sabrina
2	70/LM-0007	Geochemical Characterization	GEO/09	C	6	60	Valera Paolo
2	IA/0318	Green and Applied Chemistry	CHIM/03	C	6	60	Serpe Angela
2	IA/0042	Design of Environmental Remediation and Decontamination Systems	ICAR/03	C	6	60	De Gioannis Giorgia
2	70/LM-0087	Safety and Project Management at Construction Sites	ING-IND/28	C	6	60	Dentoni Valentina



2	70/LM-0098	Renewable Energy Technologies		ING-IND/09	C	6	60	Cocco Daniele
	IA/0319	Integrated Course: Digital Platforms for Monitoring						
2	IA/0236	- Module: Hardware Platforms for IoT		ING-INF/01	C	3	30	Busia Paola
2	IA/0237	- Module: Data Processing and Transmission		ING-INF/03	C	3	30	Pilloni Virginia
<b>Curriculum Environmental Technologies</b>								
1	IA/0320/EN	Sustainable solid waste management: materials and energy recovery		ICAR/03	B	9	90	Muntoni Aldo
1	IA/0155/EN	Wastewater Treatment Plants		ICAR/03	B	9	90	Carucci Alessandra Cappai Giovanna S.
	IN/0073	Integrated Course: Treatment of Fluids and Waste Gases						
2	IN/0074	- Module: Treatment of Fluids		ING-IND/29	B	6	60	Surracco Marco
2	IN/0245/EN	- Module: Control and Treatment of Atmospheric Emissions		ICAR/03	B	6	60	Cappai Giovanna S.
<b>Curriculum Geo-engineering and Land Protection</b>								
	IN/0070	Integrated Course: Hydrogeological Protection						
1	IN/0071	- Module: Watershed and Stream Restoration Engineering		ICAR/02	B	6	60	Montaldo Nicola
1	IN/0072	- Module: Slope Instability and Hydrogeological Risk		GEO/05	B	6	60	Uras Gabriele
	IN/0136	Integrated Course: Rock Engineering						
1	IN/0137	- Module: Rock Mechanics		ING-IND/28	B	6	60	Grosso Battista
2	IN/0138	- Module: Excavation Engineering and Underground Works		ING-IND/28	B	6	60	Careddu Nicola
	IN/0210	<i>choose between:</i> Coastal Hydraulics		ICAR/01	B	6	60	Badas Maria Grazia
2	IN/0211	Design and Management of Geoengineering Works for Environment Protection		ING-IND/28	B	6	60	Careddu Nicola
<b>Curriculum Regional and Urban Planning</b>								
1	IA/0003	Geodesign		ICAR/20	B	6	60	Campagna Michele
	IN/0067/EN	Integrated Course: Strategic Environmental Planning						
1	IN/0068/EN	- Module: Environmental Planning		ICAR/20	B	6	60	Garau Chiara
2	IN/0242/EN	- Module: Strategic Planning		ICAR/20	B	6	60	Lai Sabrina
	IA/0321	Integrated Course: Planning Energy System						
2	IA/0322	- Module: Territorial Energy Systems: Analysis and Design		ING-IND/11	C	6	60	Frattolillo Andrea
2	IA/0323	- Module: Sustainable Urban and Territorial Planning		ICAR/20	B	6	60	Balletto Ginevra



**Laboratories that can be chosen by students to satisfy part of the credits of own free choice**

<b>Sem</b>	<b>Code course</b>	<b>Laboratory</b>	<b>SSD</b>	<b>ECTS</b>	<b>H</b>	<b>Teacher</b>
1	IN/0220	Sanitary and Environmental Engineering Laboratory	ICAR/03	2	25	De Gioannis Giorgia
2	IA/0170	Environmental Geophysics Lab	GEO/11	3	30	Deidda Gian Piero
2	IA/0001	Workshop of Regional Planning	ICAR/20	3	45	Lai Sabrina Zoppi Corrado
2	IN/0221	Laboratory of Safety and Project Management at Construction Sites	ING-IND/28	3	25	Pinna Francesco

Other optional activities can be communicated on course web site.