Bachelor degree: Information engineering Study plan

Marco Santagiustina (Teaching board)

Roberta Pellizzaro (DEI student office)

Study plan:

- Organization of educational offer

- Schedule and application

- Rules

- Schemes

The course units are grouped by type of activity and, within the various activities, by scientific disciplinary sectors (SSDs)

Basic activities (SSDs: Mathematics, computer science, physics, chemistry)

Core activities in SSDs

- Electronic Engineering
- Computer engineering
- Automation engineering
- Telecommunications engineering

Integrative activities (SSDs not included in the previous ones, e.g. Electric circuits etc.)

Other activities (not linked to an SSD: free choice 12 credits, B2 English 3 credits, final exam 3 credits)

For each activity and SSD there is a minimum and maximum number of credits that can be considered to reach the 180 credits needed for the degree.

NOTE:

Those who are thinking to enroll in a master's degree **in Italy** must meet minimum requirements in terms of credits in SSD groups.

Each Italian University and each master degree has its own admission requirements.

These requirements can be found in the admission notices.

Foreign Universities might have similar requirements for admissions.

Graduates in Information Engineering have all the requirements to enroll in any DEI master degree

(Bioingegneria*, Computer engineering, Electronic engineering, Control system engineering, ICT for internet and multimedia).

* Bioingegneria is tought in Italian, so in addition you must know Italian language.

At: https://en.didattica.unipd.it/off/2022/LT/IN/IN0513

You can find the info about all Course units

First cycle degree courses	Second cycle degree courses	Single cycle degree courses

School of Engineering

INFORMATION ENGINEERING

Information concerning the students who enrolled in A.Y. 2022/23

If it is not your enrollment A.Y. go back to the home page

▾ Degree course details

Degree course type	First cycle degree D.M. 270/2004
Degree course code	IN0513
Activated in	2008/09
Year of degree course structure	2021/22
Class (Ministerial field of study code)	L-8 - Information technology engineering
Degree issued	
Branch	Padova
Language	English and Italian
Degree course tracks	"Ingegneria dell'informazione" [001PD] "Information engineering" [002PD]
Related degree courses	IN0507 - ELECTRONIC ENGINEERING IN0508 - COMPUTER ENGINEERING
Other degree courses within the same class	IN2374 - BIOMEDICAL ENGINEERING (Ord. 2022) IN2376 - MECHATRONIC ENGINEERING
Degree programme regulations	Regulations — Rector's decree and regulations, issued on 07/05/2021 with RD n. 1712/2021
	Annex 1 — General description of educational activities
	Annex 2 — Study progression and proposed educational activities (course units, contact hours, credits, relevant subject areas, teaching-learning methodology, etc.)
	Annex 3 — Plans of studies (tracks) which do not require further approval by the Degree Course Council
	Annex 4 — Additional annex

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Description of the formative course for the students who enrolled in A.Y. 2022/23 view

Course unit
CONTROL SYSTEMS
INQ1097775, A.A. 2024/25

Information concerning the students who enrolled in A.Y. 2022/23

Information on the course unit

Degree course	First cycle degree in INGEGNERIA DELL'INFORMAZIONE IN0513, Degree course structure A.Y. 2021/22, A.Y. 2024/25
Degree course track	Information engineering [002PD]
Number of ECTS credits allocated	9.0
Type of assessment	Mark
Course unit English denomination	CONTROL SYSTEMS
Department of reference	Department of Information Engineering
E-Learning website	https://stem.elearning.unipd.it/course/view.php?idnumber=2024-IN0513-002PD-2022-INQ1097775-N0-DEI
Mandatory attendance	No
Language of instruction	English
Branch	PADOVA
Single Course unit	The Course unit can be attended under the option Single Course unit attendance
Optional Course unit	The Course unit can be chosen as Optional Course unit
Course unit for Erasmus students	The course unit can be attended by Erasmus+ and other exchange students

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Lecturers

Teacher in charge	PIETRO FALCO	pietro.falco@unipd.it	IINF-04/A

ECTS: details

Type	Scientific-Disciplinary Sector		Credits allocated
Core courses	ING-INF/04	Automatics	9.0

Course unit organization

Period	First semester
Year	3rd Year
Teaching method	face to face teaching

Type of hours	Credits	Teaching hours	Hours of Individual study	Shifts
Lecture	9.0	72	153.0	No turn

- **You can enroll in the exams only if they are in your approved study plan**

- 1st and 2nd year exams were all mandatory (automatic study plan) but at 3rd year students must select exams and a plan must be submitted

- It is possible to submit the study plan <u>according to this calendar:</u>

FROM	TO	EVALUATION DATES	PRIORITY RE-SUBMISSION IN CASE OF REJECTION
11 November 2024	15 January 2025	2 December 2024 16 January 2025	2-6 December 2024 16-21 January 2025
15 March 2025	15 June 2025	16 April 2025 16 June 2025	16-23 April 2025 16-20 June 2025
20 August 2025	15 September 2025	16 September 2025	16-19 September 2025

- The application is submitted on **Uniweb** (link inside the online booklet)

- The Teaching Board of the Degree evaluates the study plan according to the calendar and approves or rejects the plan indicating the reason.

- In case of a rejection the student can submit immediately a new plan; if so, the plan will be evaluated with priority; otherwise, it will be evaluated
  - at the end of the call, if the call is still open
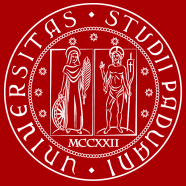 - in a new call.

The general rules:

- **Mandatory courses/activities, 147 credits**: these activities cannot be replaced and they are already in your study plan

- **Restricted choice courses**:
  - **6 credits**, 1 course out of a group of 2
  - at least **15 credits** within a group of courses

- **Free choice courses, 12 credits**: the course units chosen must be consistent with the Information Engineering training project

- For students enrolled in 2021/22 and 2022/23 there will be 2 types of study plans:

    - IN0513 ENG Proposed scheme

    - IN0513 IND ENG Individual scheme

➢IN0513 ENG Proposed scheme

▪ IN0513 IND ENG Individual scheme

Course Unit	CFU - CREDITS
Calculus 1	12
Foundations of computer science	12
English language B2	3
Linear algebra	12
Physics 1	12
Digital Systems	9
Data structures and algorithms	9
Calculus 2	9
Physics 2	9
Probability theory	9
Signal and systems	9
Electric circuits	6
Introduction to machine learning	6
Electronics	9
Telecommunications	9
Control Systems	9
Final exam	3

Choices to be taken within .

6 credits

CHOOSE 1 COURSE BEETWEEN THE FOLLOWING	
Information trasmission media	6
Algorithms in engineering	6

15 credits

CHOOSE MINIMUM 15 CREDITS BETWEEN THE FOLLOWING COURSES		
Digital signal Processing	ING-INF/03	6
Internet and security	ING-INF/03	9
Microcontrollers and DSP	ING-INF/01	9
~~Introduction to computer networks~~	ING-INF/05 **NOT available**	9
Systems and models	ING-INF/04,06	9
Information trasmission media	ING-INF/02	6
Algorithms in engineering	ING-INF/05	6

If not yet selected {

12 credits; Choices in the list below are consistent and a study plan including them will be certainly approved.

Digital signal Processing	ING-INF/03	6
Internet and security	ING-INF/03	9
Microcontrollers and DSP	ING-INF/01	9
Introduction to computer networks	ING-INF/05 **NOT available**	9
Systems and models	ING-INF/04,06	9
Internet and multimedia laboratory	ING-INF/03	6
Signals and measurement Laboratory	ING-INF/07	6
Optics and Photonics laboratory	ING-INF/02, FIS/03	6
Microelectronics laboratory	ING-INF/01	6
Computer engineering laboratory	ING-INF/05	6
Control systems laboratory	ING-INF/04	6

} If not yet selected

Choices of other units (within those offered @Unipd) will be subject to Board approval.

- IN0513 ENG Proposed scheme

➢ IN0513 IND ENG Individual scheme

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Calculus 1	12
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Physics 1	12
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Probability theory	9
Signal and systems	9
Electric circuits	6
Introduction to machine learning	6
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Choices to be taken within .

<table>
<tr><td colspan="2">6 credits</td><td colspan="3">15-18 credits</td></tr>
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~~Introduction to computer networks~~	ING-INF/05 **NOT available**	9
Systems and models	ING-INF/04,06	9
Information trasmission media	ING-INF/02	6
Algorithms in engineering	ING-INF/05	6

If not yet selected

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Introduction to computer networks	ING-INF/05	9
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Internet and multimedia laboratory	ING-INF/03	6
Signals and measurement Laboratory	ING-INF/07	6
Optics and Photonics laboratory	ING-INF/02, FIS/03	6
Microelectronics laboratory	ING-INF/01	6
Computer engineering laboratory	ING-INF/05	6
Control systems laboratory	ING-INF/04	6

NOT available

} If not yet selected

Choices of other units (within those offered @Unipd) will be subject to Board approval.

More info:

A meeting will be organized mid December, in which a guided study plan submission will be possible.

DEI student office: segredei@dei.unipd.it

https://stem.elearning.unipd.it/mod/book/view.php?id=234&chapterid=2111

The activity FINAL EXAM (mandatory) is worth 3 credits.

It consists in the development, reporting and presentation of:

- a brief technical research work on a topic related to the degree and assigned by a professor (the supervisor);

- a small project (also comprehensive of an experimental/laboratory/numerical/theoretical work) developed under the supervision of a professor (the supervisor);

Steps:
1) Contact professors to identify a supervisor and a topic
2) Supervisor and topic must be inserted on Uniweb
3) Develop the work, write a brief report and a ppt presentation
4) When all other exams have been passed, you can present your work to a Committee (there are 4 sessions per year, indicatively: July, September, November, March)

Contact: segredei@dei.unipd.it

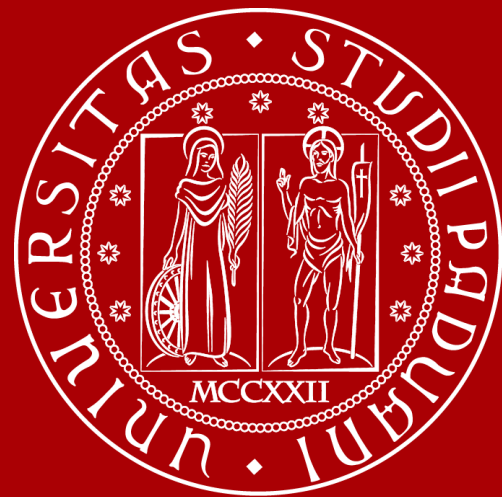Internships are not part of your degree (NO CREDITS)

Yet, you can do an internships:
- During your bachelor (not recommended)
- After getting your bachelor degree

Internships must be allowed by the University and an agreement between student, University and Enterprise must be signed before starting any activity.

You must find an academic supervisor (professor) for the Internship

Contact: stage@unipd.it