



**BACHELOR'S DEGREE IN
ELECTRONIC, COMPUTER AND TELECOMMUNICATION ENGINEERING
DEGREE PROGRAMME 2025/2026**

Course contents are available at this [link](#)

1st year

| Sem | Teaching course | SSD* | TAF* | Credits | h |
|-----|---|------------|------|---------|----|
| 1 | Mathematical Analysis 1 | MAT/05 | A | 9 | 90 |
| 1 | Physics 1 | FIS/01 | A | 8 | 80 |
| 1 | Integrated Course: Information Processing Systems - Module: Programming Fundamentals | ING-INF/05 | A | 6 | 60 |
| 2 | - Module: Computer Architectures | ING-INF/05 | A | 6 | 60 |
| 2 | Chemistry | CHIM/07 | C | 6 | 60 |
| 2 | Physics 2 | FIS/01 | A | 6 | 60 |
| 2 | Geometry and Algebra | MAT/03 | A | 7 | 70 |
| 2 | Communication Networks | ING-INF/03 | B | 6 | 60 |

2nd year

| Sem | Teaching course | SSD* | TAF* | Credits | h |
|-----|---|------------|------|---------|-----|
| 1 | Mathematical Analysis 2 | MAT/05 | A | 8 | 80 |
| 1 | Applied Mathematics | MAT/08 | C | 6 | 60 |
| 1 | Digital Systems Design | ING-INF/01 | B | 12 | 120 |
| 1 | Integrated Course: Analysis and Control of Dynamical Systems - Module: System Theory | ING-INF/04 | B | 6 | 60 |
| 2 | - Module: Automatic Control Systems | ING-INF/04 | B | 6 | 60 |
| 2 | Integrated Course: Signal Measurement, Coding and Transmission - Module: Measurement Systems for Information Engineering | ING-INF/07 | B | 6 | 60 |
| 2 | - Module: Telecommunication Systems | ING-INF/03 | B | 6 | 60 |
| 2 | Advanced Programming | ING-INF/05 | B | 6 | 60 |
| 2 | Circuit Theory | ING-IND/31 | C | 8 | 80 |



3rd year

| Sem | Teaching course | SSD* | TAF* | Credits | h |
|---|---|------------|------|---------|----|
| Curriculum on Electronic Engineering | | | | | |
| 1 | Semiconductor Devices | ING-INF/01 | B | 8 | 80 |
| 1 | Microcontroller-Based Systems | ING-INF/01 | B | 6 | 60 |
| 1 | Integrated Course: Electromagnetics | | | | |
| | - Module: Radio Link Technology | ING-INF/02 | B | 6 | 60 |
| 2 | - Module: Electromagnetic Fields | ING-INF/02 | B | 6 | 60 |
| 2 | Integrated Course: Electronic Systems | | | | |
| | - Module: Applied Electronics | ING-INF/01 | B | 5 | 50 |
| 2 | - Module: Circuit Design | ING-INF/01 | B | 5 | 50 |
| 2 | - Module: Lab of Electronics | ING-INF/01 | F | 2 | 20 |
| 1 | 1 course from tab 1 | | C | 6 | 60 |
| Curriculum on Computer Engineering | | | | | |
| 1 | Integrated Course: Operating Systems and Database | | | | |
| | - Module: Operating Systems | ING-INF/05 | B | 5 | 50 |
| 1 | - Module: Lab of Operating Systems | ING-INF/05 | F | 2 | 20 |
| 1 | - Module: Databases | ING-INF/05 | B | 6 | 60 |
| 1 | Radio Link Technology | ING-INF/02 | B | 6 | 60 |
| 1 | Internet | ING-INF/03 | B | 6 | 60 |
| 2 | Integrated Course: Object-Oriented and Web Programming | | | | |
| | - Module: Web Programming | ING-INF/05 | B | 7 | 70 |
| 2 | - Module: Object Oriented Programming Languages | ING-INF/05 | B | 6 | 60 |
| 1 | 1 course from tab 2 | | C | 6 | 60 |
| Curriculum on Internet | | | | | |
| 1 | Internet | ING-INF/03 | B | 6 | 60 |
| 1 | Integrated Course: Digital Media and Mobile Networks | | | | |
| | - Module: Digital Media | ING-INF/03 | B | 6 | 60 |
| 1 | - Module: Lab of Digital Media | ING-INF/03 | F | 2 | 20 |
| 2 | - Module: XG Mobile Networks | ING-INF/03 | B | 6 | 60 |
| 1 | Integrated Course: Electromagnetics for Telecommunication | | | | |
| | - Module: Radio Link Technology | ING-INF/02 | B | 6 | 60 |
| 2 | - Module: Electromagnetics and Antenna Technologies | ING-INF/02 | B | 6 | 60 |
| 2 | Cloud networking | ING-INF/03 | B | 6 | 60 |
| 1 | 1 course from tab 2 | | C | 6 | 60 |



Additional credits to be acquired

| Sem | Activity | SSD* | TAF* | Credits | h |
|-----|---|------|------|---------|---|
| | English Language Test - B1 ¹ | | E | 3 | |
| | Elective activities ² | | D | 12 | |
| | Final Exam | | E | 3 | |

TOTAL CREDITS 180

(1) The credits of European language level can be acquired:

- passing the English language test at B1 European level (CEFR) at Centro Linguistico d'Ateneo,
- showing appropriate certification of B1 European level (CEFR) knowledge.

(2) The elective activities must be consistent with the personal educational plan and they need approval by the Degree Programme Board.

Tab. 1. One course from the list

| Sem | Insegnamento | SSD | TAF | CFU | Ore |
|-----|---|------------|-----|-----|-----|
| 1 | Digital Control | ING-INF/04 | C | 6 | 60 |
| 1 | Measurement Systems and Virtual Instrumentation | ING-INF/07 | C | 6 | 60 |
| 1 | Power Electronics | ING-IND/32 | C | 6 | 60 |

Tab. 2. One course from the list

| Sem | Insegnamento | SSD | TAF | CFU | Ore |
|-----|---|------------|-----|-----|-----|
| 1 | Digital Control | ING-INF/04 | C | 6 | 60 |
| 1 | Measurement Systems and Virtual Instrumentation | ING-INF/07 | C | 6 | 60 |
| 2 | Smart Grid | ING-IND/33 | C | 6 | 60 |



Tabella 3. Available elective activities

| Sem | Insegnamento | SSD | TAF | CFU | Ore |
|---|--|------------|-----|-----|-----|
| n/a | Internship | | D | 6 | 60 |
| n/a | Project in Electrical and Electronic Department | | D | 6 | 60 |
| n/a | Lab available at: https://web.unica.it/unica/it/crs_70_94_55.page | | D | 3 | 30 |
| 1 | Course from Tab 1 and 2 | | | | |
| 2 | Integrated Course: Applied Electronics and Lab ¹ | | | | |
| 2 | - Module: Applied Electronics | ING-INF/01 | D | 5 | 50 |
| 2 | - Module: Lab of Electronics | ING-INF/01 | D | 2 | 20 |
| 2 | Circuit Design ¹ | ING-INF/01 | D | 5 | 50 |
| 1 | Databases ² | ING-INF/05 | D | 6 | 60 |
| 2 | Object Oriented Programming Languages ² | ING-INF/05 | D | 6 | 60 |
| 1 | Integrated Course: Operating Systems and Lab ² | | | | |
| 1 | - Module: Operating Systems | ING-INF/05 | D | 5 | 50 |
| 1 | - Module: Lab of Operating Systems | ING-INF/05 | D | 2 | 20 |
| 2 | Web Programming ² | ING-INF/05 | D | 7 | 70 |
| 1 | Integrated Course: Digital Media and Lab ³ | | | | |
| 1 | - Module: Digital media | ING-INF/03 | D | 6 | 60 |
| 1 | - Modulo: Lab of Digital Media | ING-INF/03 | D | 2 | 20 |
| 2 | xG Mobile Networks ³ | ING-INF/03 | D | 6 | 60 |
| 2 | Electromagnetic Fields ^{1,3} | ING-INF/02 | D | 6 | 60 |
| ¹ not available for the curriculum on Electronic Engineering ² not available for the curriculum on Computer Engineering ³ not available for the curriculum on Internet | | | | | |

The semester could change; check in [Course bulletin](#) of the academic year.

***Abbreviations**

| | |
|-----|--------------------------------|
| SSD | Scientific Disciplinary Sector |
| TAF | Type of Educational Activity |