



MASTER'S DEGREE IN MECHANICAL ENGINEERING

DEGREE PROGRAMME 2017/2018

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

1st year

| Sem | Teaching course | SSD* | TAF* | Credits | h |
|-----|---|------------|------|---------|-----|
| 1 | Automatic Control Systems | ING-INF/04 | C | 6 | 60 |
| 1 | Manufacturing Systems | ING-IND/16 | B | 6 | 60 |
| 1 | Integrated Course: Mechanical Behavior of Materials - Module: Mechanics of Materials | ING-IND/14 | B | 6 | 60 |
| 2 | - Module: Mechanics of Composite Materials | ING-IND/14 | B | 6 | 60 |
| 1 | Integrated Course: Industrial Systems - Module: Industrial Systems Management | ING-IND/17 | B | 6 | 60 |
| 2 | - Module: Industrial Systems Design | ING-IND/17 | B | 6 | 60 |
| 2 | Kinematics and Dynamics of Mechanisms | ING-IND/13 | B | 12 | 120 |

2nd year

| Sem | Teaching course | SSD* | TAF* | Credits | h |
|-----|--------------------------------|------------|------|---------|----|
| 1 | Industrial Energy Technologies | ING-IND/09 | B | 9 | 90 |
| 2 | Design of Fluid Machinery | ING-IND/08 | B | 9 | 90 |

Additional credits to be acquired

| Sem | Activity | SSD* | TAF* | Credits | h |
|-----|----------------------------------|------|------|---------|---|
| | 4 courses from tab 1 | | C | 24 | |
| | Laboratories or internship | | F | 6 | |
| | Elective activities ¹ | | D | 12 | |
| | Final Examination | | E | 12 | |

TOTAL CREDITS 120

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



Tab 1. Courses TAF C (4 from the list)

| Sem | Teaching course | SSD* | TAF* | Credits | h |
|----------------------------|---|------------|------|---------|----|
| 1st year | | | | | |
| 1 | Numerical Calculus | MAT/08 | C | 6 | 60 |
| 1 | Thermal Hvac Systems | ING-IND/11 | C | 6 | 60 |
| 2 | Finite Elements Analysis | ING-IND/14 | C | 6 | 60 |
| 2 | Renewable Energy Technologies | ING-IND/09 | C | 6 | 60 |
| 2nd year | | | | | |
| 1 | Environmental Impact Energy Systems | ING-IND/09 | C | 6 | 60 |
| 1 | Computational Modeling of Fluid Systems | ING-IND/08 | C | 6 | 60 |
| 1 | Experimentation in Fluid Machines | ING-IND/08 | C | 6 | 60 |
| 2 | Quality Management | ING-IND/16 | C | 6 | 60 |
| 2 | Experimental Mechanics | ING-IND/14 | C | 6 | 60 |

Other optional activities:

| Sem | Laboratory | SSD* | TAF* | Credits | h |
|-----|--|------------|------|---------|----|
| 1 | Symulation of Dynamical Systems with Matlab-Simulink | ING-INF/04 | F | 3 | 30 |
| 2 | Fluid Automation | ING-IND/13 | F | 3 | 30 |
| 2 | Nondestructive Testing | ING-IND/14 | F | 3 | 30 |
| 2 | Mechanical Design Project* | ING-IND/14 | F | 3 | 30 |

* available only in a.y. 2017/18

***Abbreviations**

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