

Programmawijzigingen/ Program changes 2025 -2026

BACHELOR

*De bacheloropleiding omvat **180 ECTS**. Kom je omwille van een programmawijziging niet aan 180 ECTS, gelieve de studietrajectbegeleiding te contacteren via studietraject.ir@vub.be*

Bachelor Ingenieurswetenschappen: architectuur

2de bachelor

- Het **keuzevakkenpakket** (3ECTS) wordt uitgebreid.

Opgelet: Indien je aan het einde van de bachelor niet aan 180 ECTS komt, moet je een extra keuzevak opnemen. Neem hiervoor contact op met jouw studietrajectbegeleider.

MASTER

*De **masteropleiding Industriële wetenschappen** omvat **60 ECTS**. Zit je onder dit aantal ECTS, gelieve de studietrajectbegeleiding te contacteren via studietraject.ir@vub.be*

*The **Master of Engineering** is a program of **120 ECTS**. Please notify the Learning Path Counselor if you have a total number of credits below 120.*

Master Biomedical Engineering

Compulsory courses:

- **Artificial organs** (5ECTS) will be removed from the programme.
- **Medical Equipment Safety and Regulations** (5ECTS) will be removed from the programme.

General elective courses:

- **Project Multifunctional Materials** (5ECTS) will be removed from the programme.
- **Electrochemistry** (4ECTS) will be removed from the programme.
- **Techniques of Artificial Intelligence** (6ECTS) will be removed from the programme.
- **Surface treatment : Processing and Analysis** (4ECTS) will be removed from the programme.
- **Wave physics in Living Matter** (6ECTS) will be removed from the programme.
- **Bioelectromagnetism** (3ECTS) will be removed from the programme.
- **Biomedical Acoustics** (6ECTS) will be removed from the programme.
- **Virtual Reality** (5ECTS) will be removed from the programme.

Elective courses from clusters:

- **Nuclear Reactors and Cyclotrons** (3ECTS) will be removed from the programme.
- **Techniques of Artificial Intelligence** (6ECTS) will be removed from the programme.
- **Advanced Methods in Bioinformatics** (6ECTS) will be added to the list.
- **Technological processes for Photonics and Electronics** (4ECTS) will be removed from the programme and replaced by **Micromachining Technologies and Rapid Prototyping: Practical Aspects** (4ECTS).

Master Chemical and Materials Engineering

Elective courses:

- **Nanochemistry and –technology** (4ECTS) will be removed from the programme and replaced by **Micro- Nanofabrication** (3ECTS). Students who did not pass Nanochemistry and –Technology in 24-25 should take Micro- and Nanofabrication in 25-26.

Master Electrical Engineering

Elective courses:

- The ULB elective course **Virtual Reality** (5ECTS) will be renamed to **3D Graphics in VR** and will become a year-course.
- **Physical communication** (6ECTS) will change to **Machine Learning for the physical layer: design and analysis** (3ECTS).
- **Voice, Image Coding, Media and system** (6ECTS) will be renamed to **Hands-on Channel Coding - towards Maximal Capacit** (6ECTS).
- **Embedded System Security** (5ECTS) will be added to the list.
- The ULB elective course **Project Electronics and Telecommunication** (4ECTS) will be removed from the programme and replaced by **Project on sustainable Electronics and IC** (4ECTS).
- **Sustainability and Ecological Economics of ICT** (3ECTS) will be added to the list.
- **CAE-tools for the design of analog electronic circuit** (3ECTS) goes from semester 2 to semester 1.
- **Digital communication** (4ECTS) goes from semester 2 to semester 1.

Master Electromechanical Engineering

Elective courses:

- **Risk-based Methodologies for Energy Systems** (4ECTS) will be added to the list.
- The ULB elective course **Operation, Control and Safety of Nuclear Power Plants** will be added to the list.
- The ULB elective course **Numerical Methods** will be added to the list.
- The ULB elective course **Monte Carlo Methods** will be added to the list.
- The ULB elective course **Advanced Reactor Multi-Physics** will be added to the list.
- The ULB elective course **Nuclear Fuel Cycles and Reactor Technologies** will be added to the list.
- The ULB elective course **Nuclear Measurement Techniques** will be added to the list.
- The ULB elective course **Naval Robotics** will be added to the list.
- **Aircraft and Specification** will be removed from the list.

Common courses:

- **Composite structures** (3ECTS) goes from 2nd Master to the 1st Master. Students who have not yet passed this course should retake the course in the track.

1st Master

Sustainable Transport and Automotive Engineering

- **Railway Technology** (6ECTS) will be removed from the programme and replaced by **Sustainable Energy** (3ECTS) and **Technological Business Development Project - EUTOPIA Learning Unit** (3ECTS). Students who did not pass Railway Technology in 24-25 Should take Sustainable Energy and Technological Business Development - EUTOPIA learning Unit in 25-26.

2nd Master

Robotics and Mechanical Constructions

- **Microfabrication** (4ECTS) will be removed from the programme and replaced by **Micro-Nanofabrication** (3ECTS). Students who did not pass Microfabrication in 24-25 should take Micro- and Nanofabrication in 25-26.

Aeronautics

- **Aircraft specification and certification** (3ECTS) will be removed from the programme.

Master Photonics Engineering

- The list of elective courses has been updated.

Vorbereidingsprogramma Fotonica

- **Materiaalkunde** (4ECTS) wordt vervangen door het vak **Fotonica** (4ECTS).

Master Sustainable Land Management

- **Applied Statistics** (5ECTS) will be removed from the programme and replaced by **Introduction to Environmental Programming and Geostatistics** (5ECTS)
- **Remote Sensing** goes from 5ECTS to 6ECTS
- **Hydrogeology** (4ECTS, 1st sem) will change its name, ECTS and semester to **Futurproof Earth: Groundwater** (5ECTS, 2nd sem)
- **Climate Change** goes from 4ECTS to 3ECTS
- **Introduction to Geotechnics** (3ECTS) will be removed from the programme and replaced by **Geotechnics, Dredging and off-shore constructions** (3ECTS)
- **Water Quality Assessment** (4ECTS) will be replaced by **Soil water Management** (5ECTS)
- **Integrated Project** (5ECTS) will become a year-course

- **Communication on Sustainable Land Management** (4ECTS, 2nd sem) will change name, ECTS and semester to **Scientific Communication on Sustainable Land Management** (7ECTS, year-course).
- **Applied Geophysics** (5ECTS) will be removed from the programme.
- **Urban Hydrology and Hydraulics** (5ECTS) will change its name to **Water Resilient Cities** (5ECTS).
- **Water Resources Management 2** (5ECTS) will be replaced by **Land-Climate Dynamics** (5ECTS)
- **Internship** goes from 5 ECTS to 10 ECTS

Elective courses:

- **Geostatistics** goes from 1st sem to 2nd sem
- **Land Evaluation** goes from 1st sem to 2nd sem
- **Soil Degradation** goes from 1st sem to 2nd sem

The following courses will be added to the list:

- **Water Quality Assessment**
- **Greening the city**
- **Water Resources Management**

The following courses will be removed from the list:

- **Clay Mineralogy**
- **Land-Climate Dynamics**
- **Sustainable Mobility and Logistics - EUTOPIA Learning Unit**
- **Irrigation and drainage**
- **Water Resources Management 2**

Opgelet: Indien je aan het einde van de master niet aan 60 ECTS komt, moet je een extra keuzevak opnemen. Neem hiervoor contact op met jouw studietrajectbegeleider.

Attention: If you do not reach 120 ECTS credits by the end of your Master's program, you will need to take an additional elective course. Please contact your study track counselor for more information.

Heb je nog andere vragen rond je studietraject? Contacteer ons gerust via studietraject.ir@vub.be. Hier heb je alvast een link naar onze website waar je onze Q&A momenten, alsook inloopmomenten en contactgegevens vindt:

[Studietrajectbegeleider Ingenieurswetenschappen | Vrije Universiteit Brussel \(vub.be\)](#)

Do you have any other questions about your study track? Feel free to contact us at studietraject.ir@vub.be. Here is a link to our website where you can find our Q&A sessions, walk-in hours, and contact details:

[Study path counselor Engineering | Vrije Universiteit Brussel](#)