Welcome to Antwerp

A guide for incoming engineering exchange students
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Belgium

Cities: Bruges, Ghent

Manneke Pis

Atomium

Red Devils
The University of Antwerp
international university in an international city
City of Antwerp

- + 500 000 inhabitants
- ± 170 different nationalities
- ± 44 000 students
- ± 1 150 restaurants and pubs
- ± 25 musea

- ± 40 min from Brussels
Antwerp

Railway station

Great Market Square

River Scheldt

River Scheldt
Port of Antwerp

2nd largest port in Europe (14th global)
Home to significant number of large and medium (petro)chemical companies

Diamonds are forever

Over 2 000 diamond shops
Global center of diamond industry
Over 30 000 jobs
UAntwerp in numbers

20 812 students (19.6% international)
  bachelor 10 096
  master 4 232
  PhD 1 851

6 205 members of staff (21 international)
141 programmes (25 English)

9 Faculties
3 650 scientific publications per year
287 PhD defenses in 2019
UAntwerp campuses
Faculty of Applied Engineering

Opportunities for Exchange
Bachelor programmes

BSc of 180 credits
Spanning 6 semesters
Fall Semester: September – December
Winter exams in January
Spring Semester: February – May
Spring exams in June
Summer exam period in August-Sept

Master programmes

MSc of 60 credits
Spanning 2 semesters
Fall Semester: September – December
Winter exams in January
Spring Semester: February – May
Spring exams in June
Summer exam period in August-Sept

PhD in applied engineering

Under supervision of promoter
PhD training – Antwerp Doctoral School
Individual fellowships (competitive), via public vacancy (job portal) and/or with external funding
In one of the 7 research groups or multidisciplinary
Possibility for double degree
Programmes

Bachelor – 180 ECTS
- Chemical Engineering Technology
- Civil Engineering Technology
- Electromechanical Engineering Technology
- Electronics and ICT Engineering Technology

Master – 60 ECTS
- Biochemical Engineering Technology
- Chemical Engineering Technology
- Civil Engineering Technology
- Electrochemical Engineering Technology
- Electronics and ICT Engineering Technology

Technology expert
Researcher
Teamworker
Citizen
Exchange Options

**Bachelor**
- Semester/year of courses (optional courses from other faculties)
- Bachelor project 6-9-15 credits

**Master**
- Semester of courses (typically semester 1)
- Master project 21 or 30 credits (incl. dissertation)

**PhD**
- Research exchange
- Graduate level courses

**Short programmes**
- Antwerp Summer University (ASU)
Chemical/Biochemical Engineering Technology

Courses and Research Themes
# Bachelor

**Chemical/Biochemical Engineering Technology**

- **Fall Semester**
  - 5-Organic Chemistry 4 ECTS
  - 5-Instrumental Analysis 3 ECTS
  - Bachelor Project 9/15 ECTS

- **Spring Semester**
  - 4-Organic Chemistry 3 ECTS
  - 4-Scientific Project CH/BCH 6 ECTS
  - 6-Gene Technology 3 ECTS
  - 6-Design of Experiments 3 ECTS
  - Bachelor Project 9/15 ECTS
Master
Chemical/Biochemical Engineering Technology

- **Fall Semester**
  - I-Capita Selecta 3 ECTS
  - I-Lab Project Chemical Engineering 6 ECTS
  - I-Electrochemical Engineering 3 ECTS
  - I-Electrochemistry & Corrosion 3 ECTS
  - I-Industrial Biotechnology 3 ECTS
  - I-Project Bioprocess Engineering 4 ECTS
  - Master Project 30 ECTS

- **Spring Semester**
  - II-Advanced Structure Determination 3 ECTS
  - II-Sustainable Material Recycling 3 ECTS
  - II-Advanced Reactor Engineering 3 ECTS
  - II-Advanced Wastewater Engineering 6 ECTS
  - Master Project 21/30 ECTS

https://www.youtube.com/watch?v=1pH4j6viDzg&t=1s
Research Themes

ELCAT
Applied Electrochemistry & Catalysis

- Electrosynthesis
- Electrocatalysis
- Electrochemical reactor engineering

Principal Investigators
Tom Breugelmans, Thomas Altantzis
Contact: Tom.Breugelmans@uantwerpen.be

BioWaVE
Biochemical Wastewater Valorization and Engineering

- Mixed cultures focusing on granular sludge for wastewater treatment
- Pure cultures for industrial biotechnology

Principal Investigators
Jan Dries, Iris Cornet
Contact: Jan.Dries2@uantwerpen.be

iPRACS
Intelligence in Processes, Advanced Catalysts & Solvents

- Polymer chemical recycling
- Catalyst heterogenization (MOFs)
- Biobased monomers
- Sustainability assessments (LCA/TEA)

Principal Investigators
Pieter Billen, Christophe Vande Velde
Contact: Pieter.Billen@uantwerpen.be

Contact:
Tom.Breugelmans@uantwerpen.be
Civil Engineering Technology

Courses and Research Themes
Bachelor
Civil Engineering Technology

- **Fall Semester**
  - Bachelor project 9/15 ECTS

- **Spring Semester**
  - 6-Strength of Materials and Stability 3 ECTS
  - 4-Scientific Project 6 ECTS
  - Bachelor project 9/15 ECTS
Master
Civil Engineering Technology

- **Fall Semester**
  - I-Acoustics 3 ECTS
  - I-Design of Steel and Wood Structures 3 ECTS
  - Master Project 21/30 ECTS

- **Spring Semester**
  - Master Project 21/30 ECTS

https://www.youtube.com/watch?v=04U9PI11mMM
Research Themes

Sustainable buildings
Principal Investigators
Amaryllis Audenaert, Stijn Verbeke
Amaryllis.Audenaert@uantwerpen.be

Sustainability Assessment
Principal Investigators
Amaryllis Audenaert, Matthias Buyle, Bart Craeye
Amaryllis.Audenaert@uantwerpen.be

Sustainable Road Engineering
Principal Investigators
Wim Van den bergh, Cedric Vuye, Johan Blom, Zhi Cao, Bart Craeye, Navid Hasheminejad, David Hernando, Seyed Reza Omranian
Wim.Vandenbergh@uantwerpen.be

https://www.uantwerpen.be/en/research-groups/emib/
Electromechanical Engineering Technology

Courses and Research Themes
Bachelor
Electromechanical Engineering Technology

- Fall Semester
  - Bachelor Project 9/15 ECTS
- Spring Semester
  - Bachelor Project 9/15 ECTS
Master
Electromechanical Engineering Technology

- **Fall Semester**
  - I-Motion Control 6 ECTS
  - I-Model-Based Systems Engineering 3 ECTS
  - I-Robotics 3 ECTS
  - Master Project 21/30 ECTS

- **Spring Semester**
  - Vision 3 ECTS
  - Communication in Engineering Innovations 3 ECTS
  - Master Project 21/30 ECTS

https://www.youtube.com/watch?v=S83jWBZNk0s&t=59s
Research Topics

**Mechatronics**
- Motion control
- Electromechanical engineering

Principal Investigators
Stijn Derammelaere
Contact: Stijn.Derammelaere@uantwerpen.be

**Vision**
- Optical measurement techniques
- Industrial (3D) vision technology
- Advanced mechanical design

Principal Investigators
Steve Vanlanduit
Contact: Steve.Vanlanduit@uantwerpen.be

**Energy**
- Renewable Energy
- Offshore Energy
- HVAC....

Principal Investigators
Ivan Verhaert
Contact: Ivan.Verhaert@uantwerpen.be
Electronics and ICT Engineering Technology
Courses and Research Themes
Bachelor
Electronics and ICT Engineering Technology

- Fall Semester
  - 5-Digital Image Processing 3 ECTS
  - 5-Mobile Communication 3 ECTS
  - 5-Telecommunication 2 3 ECTS
  - 5-Software Design 3 ECTS
  - Bachelor Project 9/15 ECTS

- Spring Semester
  - 4-Telecommunication 1 3 ECTS
  - 6-Digital Signal Processing 3 ECTS
  - 6-Telecommunication 3 3 ECTS
  - 6-Distributed Systems 6 ECTS
  - 4-Scientific project 6 ECTS
  - Bachelor Project 9/15 ECTS
Master
Electronics and ICT Engineering Technology

- **Fall Semester**
  - I-Electronic Systems 6 ECTS
  - I-Model-Based Systems Engineering 3 ECTS
  - I-Cyber-Physical Systems 9 ECTS
  - I-IoT: Lower Power Embedded Communication 12 ECTS
  - I-Distributed Artificial Intelligence 12 ECTS
  - I-Computer Graphics 3 ECTS
  - I-Prototyping 3 ECTS
  - I-Robotics 3 ECTS
  - Master Project 21/30 ECTS

- **Spring Semester**
  - II-Communication Systems 6 ECTS
  - II-Software Engineering 6 ECTS
  - II-Cyber-Physical Systems 3 ECTS
  - Master Project 15/21/30 ECTS

https://www.youtube.com/watch?v=hlOUg-iXzno&t=11s
Research Themes

CoSyS-Lab
The design of embedded technology for cyber-physical systems
- Model-based systems engineering for CPS
- Sensors, signal processing and control for CPS

Principal Investigators
Paul De Meulenaere, Jan Steckel, Walter Daems, Stijn Derammelaere, Joachim Denil
Contact: Paul.Demeulenaere@uantwerpen.be

IDLab
Fundamental and applied research on Wireless technologies
- Wireless Networking
- Artificial Intelligence
- Modeling of Complex Systems

Principal Investigators
Peter Hellinckx, Maarten Weyn, Johann Marquez-Barja
Contact: Steven.Latre@uantwerpen.be
All departments

Courses and Research Themes
Bachelor & Master

- French (2 levels) 3 ECTS
- English (2 levels) 3 ECTS
- Global Justice 3 ECTS
- Communication in Engineering Innovations 3 ECTS

- Other faculties
  https://www.uantwerpen.be/en/study/international-mobility/erasmus-and-exchange-students/study-information/courses-learning-agreement/
Relevant Contacts and Links
Faculty International Coordinators

- **Administrative International Coordinator:** Sofie Krol
  Sofie.Krol@uantwerpen.be

- **Academic International Coordinators**
  - **(Bio)Chemical Engineering Technology:** prof. Pieter Billen
    Pieter.Billen@uantwerpen.be
  - **Civil Engineering Technology:** prof. Wim Van den bergh
    Wim.Vandenbergh@uantwerpen.be
  - **Electronics and ICT Engineering Technology:** prof. Joachim Denil
    Joachim.Denil@uantwerpen.be
  - **Electromechanical Engineering Technology:** dr. Cosmin Copot
    Cosmin.Copot@uantwerpen.be
Central University Services

- Contact
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  - Gratiekapelstraat 10 - 2000 Antwerpen, Belgium
Your Positivity and encouragement brightened our stay. I find a drastic change in my personality, I was very shy and always feared to face someone. It is only because of JMDSAE that made me a person who can now face any challenge in life.

It is not only me, but my parents also feel that positive change in me since I moved abroad.

You also were concerned about all of us during this pandemic of Corona and never left any of us alone.

• Akshay Shah, India