

Study in **English**

at the **University of Mons**

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Belgium and the city of Mons

Belgium is Europe in a nutshell: multilingual and multicultural. Known all over the world for its gourmet chocolate and its large collection of beers, this small country also excels in science, technology, and cultural activities. Its strategic location at the heart of Europe means that the country has always benefitted from foreign influence, and its 11 million nationals are welcoming, hospitable and cosmopolitan.

Mons is an ancient town with 93,000 inhabitants, and is a major university centre with more than 10,000 students. Named Cultural Capital of Wallonia in 2002, the City of Mons was then elected to be the European Capital of Culture in 2015. Mons is easily accessible from Brussels Airport and Charleroi Airport. The city is ideally located between Brussels and Paris, it is close to the French border, and the French and British capitals can be reached in less than 3 hours.



The University of Mons

The University of Mons (UMONS) has 7 faculties, 2 schools, 10 research institutes, and 3 partner research centres. It operates on two campuses, the main one, first established in 1837, located in Mons, and a second one in Charleroi.

The University has facilities spread throughout the historical heart of the city of Mons, forming an urban campus. With one thousand instructors, researchers, and scientists, for a population of about 9,000 students, UMONS has a staff-to-student ratio that allows students to build great working relationships with instructors during their time here.

Course programme

Most of the courses are taught in French and a stay at UMONS is an excellent opportunity to improve your French language skills. This can obviously be done through your linguistic immersion, as you will do many everyday things in a French-speaking environment, but UMONS also organises language courses throughout the academic year. Students take a placement test to determine their initial levels, so that they can join the appropriate group, allowing them to meet their personal goals. These courses are complementary for students enrolled on a mobility programme at UMONS. These courses can be included in your academic programme and can count for up to 5 ECTS each semester.

Beside the wide range of courses taught in French, UMONS also organises a good number of **courses in English** in the fields listed here below.

International, just like you

During your studies at UMONS you will live a truly international experience and meet students from more than 40 countries. The University of Mons is involved in numerous international collaborations and has been awarded the ECTS label, guaranteeing the quality of the exchange process and the transferability of the credits gained during the exchange.

Organisation of the academic year

The academic year is divided into three periods :

- the **Fall term** starts mid-September, with examinations in January;
- the **Spring term** starts in February, with examinations in June;
- the **resit examination period** takes place from mid-August to mid-September.

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Study Architecture and Urban Planning in English

The Faculty of Architecture and Urban Planning (FA+U) of the University of Mons is a small-sized faculty with over 400 students. Its education is based on a combination of theoretical courses and workshops, the latter being at the heart of the learning process and the application of the theoretical courses.

The workshops organised in the Master programme address very distinct themes:



heritage, housing, landscape use, and urban planning. All these specialisations are closely linked to particular territories, for example, those which are marked by a rich historical past, or brownfields dealing with the wider issue of the reconversion of territories and cities.

For exchange students, the FA+U offers workshops with supervision in English. These workshops are organised in one or

several groups of no more than 18 students per teacher. What's more, they develop projects abroad, or organise an intensive week of projects abroad, every year.

Exchange students may also choose optional courses in French (including a special French course for beginners) to improve their language skills while studying in English.

Admission: the courses can be chosen, in agreement with the home institution, by students on international mobility programmes (in this case no degree is awarded by UMONS, but one can be awarded by the home institution if the relevant conditions are fulfilled).

More information about the FA+U:
<https://web.umons.ac.be/fau/en/>





Study Business and Economics in English

The Warocqué School of Business and Economics is one of the oldest faculties of the University of Mons. It was created in 1899, with the initial objective to train businessmen and women to play a key role in the industrial and economic contexts in Belgium and abroad. The Warocqué School of Business and Economics has met this challenge for over a century. Today, the Faculty curricula meet the expectations of the ever-evolving world of economics and management.



The Warocqué School of Business and Economics delivers outstanding teaching and a great-learning experience for students. The quality of all the processes is certified by the ISO 9001 international standard, and our institution has received several awards from the Regional Government of Wallonia. Excellence is also an important value shared by the lecturers, whose mission it is to provide high-quality education and research.

Study with us as an Exchange Student

The Warocqué School of Business and Economics (FWEG) offers a wide range of Bachelor and Master courses in French and English.

If your home institution has signed an exchange agreement with the University of Mons, you can opt for a stay of 5 or 10 months (1 or 2 semesters).

Your academic programme can be exclusively made up of courses, or can be complemented by a placement in a Belgian company or by a research internship at the university. Such an arrangement will give you the opportunity to have a great international experience and to get all the

necessary skills to meet the challenges of an international career.

As an exchange student you will have the opportunity to create your own academic programme in order to meet your career objectives, in agreement with your home institution. You can also prepare a Master thesis under the expert supervision of one of our professors.

Beyond the classroom, you will also have the opportunity to work closely with the Faculty through sponsored activities, research projects, internship programmes, and through the Junior



Business courses available in English	Level	ECTS	Semester
Auditing			
Financial Statements Analysis and Introduction to International Standards	Graduate	4	1
International Standards for Accounting and Reporting	Graduate	3	1
Internal Control and Case Studies	Graduate	5	1
Performance Analysis and Management Control	Graduate	5	1
Internal Auditing and Risk Management	Graduate	2	1
Management and Economics			
Strategic Management	Graduate	5	1
Non-Profit Management	Graduate	2	1
International and European Economics	Graduate	4	1
Seminar in International and European Economics	Graduate	4	1
Environmental Economics	Graduate	3	2
Industrial Economics	Graduate	4	1
Logistics	Graduate	3	2
Finance			
Public Finance	Undergraduate	4	1
Financial Markets and Portfolio Management	Graduate	5	1
Cases in Finance and Taxes	Graduate	3	2
International Financial Management	Graduate	6	1
Corporate Finance	Graduate	4	1
Marketing			
International Marketing Management	Graduate	4	1
Cases in Marketing Strategy	Graduate	6	1
Digital Marketing Seminar	Graduate	4	2
Marketing 2	Undergraduate	4	2
Advanced Marketing	Graduate	4	2
Other fields			
International Project	Undergraduate	5	1 or 2
Intercultural Relations	Graduate	2	2
International Relations	Graduate	3	2
Master Thesis	Graduate	20	1 or 2
English Communication Seminars	Graduate	2	1

University Certificate in International Management

Some French-taught courses are supported by reference materials available in English and students may take the exams for these courses in English.

Course Title in French (Email address of the professor in charge)	Course Title in English	Reference Material	Level	Semester	ECTS
Economie politique Benoit.mahy@umons.ac.be	Economics	Sloman, J., Wride, A., & Garratt, D. (2015), "Economics", 9th Ed., Pearson Education	Bachelor 1	S 1	5
				S 2	7
Macroéconomie Guillaume.vermeylen@umons.ac.be	Macro-economics	Mankiw, G. N. (2016), "Macro-economics", 7th Ed., De Boeck	Bachelor 2	S 2	4
Management 1 Marc.labie@umons.ac.be	Management	Robbins, S.P., DeCenzo, D.A., Coulter, M., "Fundamentals of Management: Es-sential Concepts and Applications", 10th Ed., Pearson.	Bachelor 2	S 1	4
Econométrie Melanie.vorral@umons.ac.be	Econometrics	Ramanathan, R. (2008), "Introductory Econo-metrics with Applications", Harcourt College Publishers.	Bachelor 3	S 2	4
Microéconomie Frank.venmans@umons.ac.be	Micro-economics	Pindyck R., Rubinfeld D., (2012), "Microeconomics", Pear-son, 8th edition, 768p.	Bachelor 3	S 1	4
Economie du travail Benoit.mahy@umons.ac.be	Labour Economics	Filer, R.K. Hamermesh, D.S. and Rees, A., (1996), "The Economics of Work and Pay", 6th Ed., Harper-Collins.	Bachelor 2	S 1	3
Séminaire d'économie du travail Benoit.mahy@umons.ac.be	Labour Economics Seminar	Ehrenberg, R. and Smith, R. (2015), "Modern Labor Econo-mics: Theory and Public Policy", 12th Ed., Pearson Education.	Master 1	S 2	2

Exchange students may also choose some English and Spanish courses specific to the field of Business and Economics, as well as French as a Foreign Language courses.

More information on: <https://web.umons.ac.be/fweg/en/>

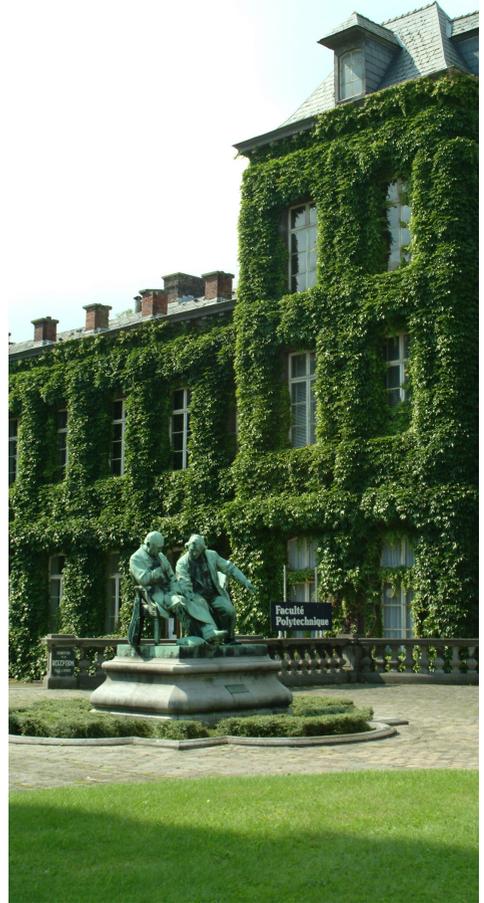


**POLYTECH
MONS**

Study Engineering in English

Founded in 1837, the Faculty of Engineering is the oldest part of UMONS, and is the oldest engineering faculty in Belgium. It is a member of the T.I.M.E. Network*, which brings together prestigious engineering schools. Every year, the Faculty of Engineering sees about 150 Master students graduate in Architectural Engineering, Chemical Engineering and Material Science, Computer Engineering and Management, Electrical Engineering, Mechanical Engineering, and Geology and Mining Engineering.

* Top Industrial Managers for Europe
www.time-association.org



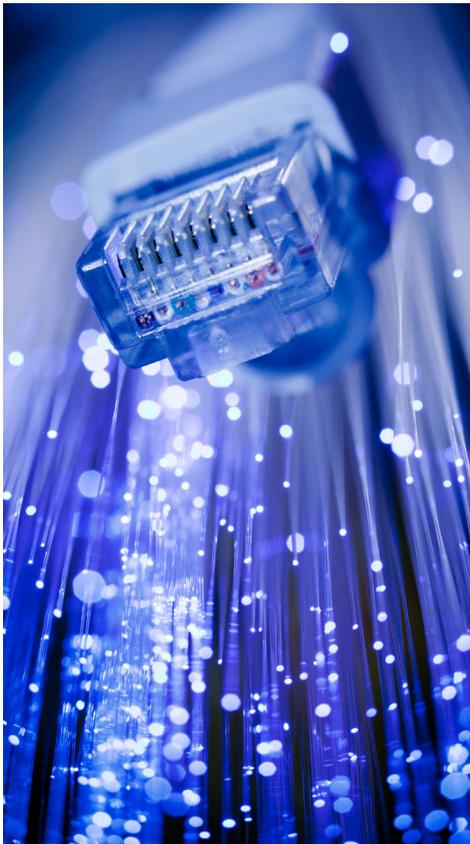
Studying Engineering as an Exchange Student

The Faculty of Engineering offers a wide range of Bachelor and Master courses taught in French and English.

Within the framework of a bilateral agreement between your home institution and UMONS, you can opt for a stay of 5 or 10 months (1 or 2 semesters). Your academic programme can be exclusively made

up of courses and projects, or can be complemented by a Master thesis.

As an exchange student you have the opportunity to create your own academic programme in order to meet your career objectives. In agreement with your home institution, you can choose any of the courses from the following tables. These courses can be taken in part or in full.



Multimedia and Telecommunications

This two-year Master course has been established to transmit the research expertise developed at UMONS at the Institute for Information technology and Computer science (INFORTECH) and the Institute for New Media Art Technology (NUMEDIART).

INFORTECH focuses on technologies used for sensing, formatting, transmitting, processing and exploiting data, signals and information. Its expertise covers a wide range of technological resources, as well as important research and development capabilities, enabling its participation in both regional and international research projects.

Today, INFORTECH is represented by more than 70 full-time researchers, along with researchers from two accredited research centres co-founded by the University: MULTITEL and CETIC.

Interdisciplinary research and innovation is encouraged, and is structured around several technological areas:

- Electronics and Microelectronics
- Computer Science
- Telecommunications
- Information Processing, Data Analysis and Decision Support
- Signal Processing and Multimedia

This Master programme focuses on Multimedia and Telecommunications and is organised over 2 academic years with 120 ECTS credits. The programme offers various courses and involves completing project work (during the autumn term) and undertaking a Master thesis (during the spring term), all under expert supervision.

All courses are taught in English. Students may also choose optional courses in French (including a special French course for beginners) to improve their language skills while studying in English.

Admission: the courses can be chosen, in agreement with the home institution, by students on international mobility programmes (in this case no degree is awarded by UMONS, but can be awarded by the home institution if the relevant conditions are fulfilled).



MULTITEL is an independent research centre in multimedia and telecommunications. It was founded in 1999 by the Faculty of Engineering. It currently employs about 80 people who work in multidisciplinary teams of engineers, technicians and marketing specialists. Its main goal is to develop and implement innovative projects in collaboration with local and international companies. MULTITEL's scientific fields include voice technologies, data fusion, optical fibre applications, image processing and computer network management. Besides its R&D activities, MULTITEL is active in the sectors of optics, telecommunications and company computer networks.

NUMEDIART is a multidisciplinary research institute whose main goal is to develop new technologies for companies working in the multimedia and digital sectors. This institute brings together researchers, industrialists and artists working on 6 main research themes:

- Multimedia information retrieval
- Performative media
- Monumental projections (3D mapping)
- Motion capture (MOCAP)
- Smart spaces
- Augmented reality

Multimedia and Telecommunications

Courses		ECTS	Semester	Year
Signal Processing	Signal Processing 1	4	1	MA1
	Signal Processing 2	1	1	MA1
Microwave Engineering		4	1	MA1
Digital Electronics		4	1	MA1
Analog Electronics		5	1	MA1
Wireless and Mobile Communication		2	2	MA1
Hardware/Software Platforms		2	2	MA1
Project		10	2	MA1
Human and Social Science Credits		5	1	MA1
Image Analysis and Pattern Recognition		4	1	MA1
Advanced Communication Systems		5	2	MA1
Networks for Multimedia and the Internet of Things		3	1	MA1
Optical Communications		4	2	MA1
Audio Processing		4	2	MA1
International Relations		3	2	MA2
Work Placement - Industrial Traineeship		10	1	MA2
Visual Processing and Smart Spaces		4	1	MA2
Advanced Optical Communications		3	1	MA2
Antennas and Propagation		2	1	MA2
Telecommunications Case Studies		3	1	MA2
Network Security and Management		3	1	MA2
Advanced Electronics	Embedded Systems	4	1	MA2
	Mixed Signal Circuits and Systems for Smart Agent SoC	1	1	MA2
Professional Credits		5	2	MA2
International Credits		5	2	MA2
Master Thesis		20	1&2	MA2

More information on: <https://web.umons.ac.be/fpms>

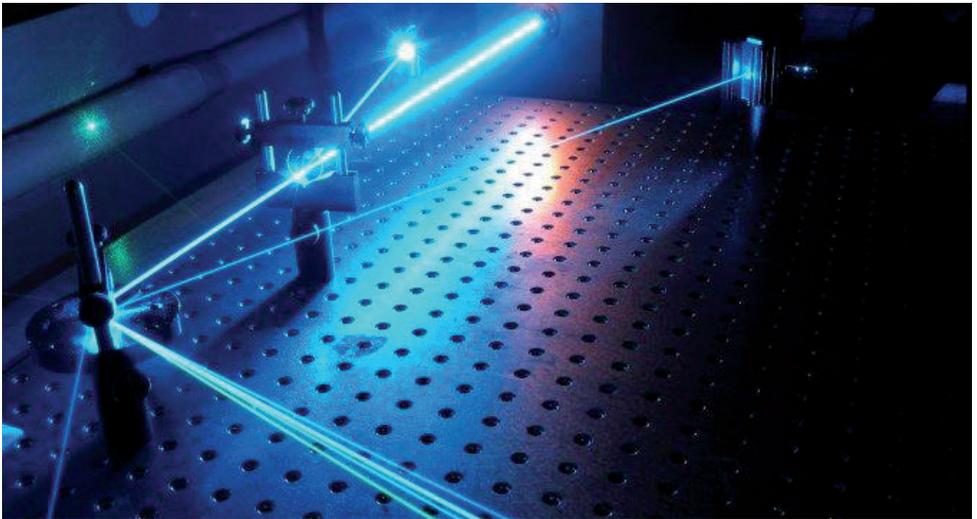
Signals, Systems and Bioengineering

This two-year Master programme focuses on methods and techniques for measurements, signal processing, system modelling, optimisation and control, as well as robotics, with applications in biomedical engineering and process applications in the bio industry.

The course programme is organised over 2 academic years and is composed of 120 ECTS credits. The keywords of this programme are “signals”, “systems” and “control” as well as “biomedical engineering” and “bioprocess applications”. The programme spans various domains

including biomedical signal and image processing, population and biological system modelling, hardware and software instrumentation, advanced control strategies for biomedical and bioprocess applications, and the use of technology in various processes related to human health, the environment, food and renewable energy.

This programme involves completing two projects and undertaking a Master thesis, all under expert supervision. Students can also choose some optional introductory courses, depending on their previous educational background. Alternatively, students can attend language courses, including a special French course for beginners.



Signals, Systems and Bioengineering

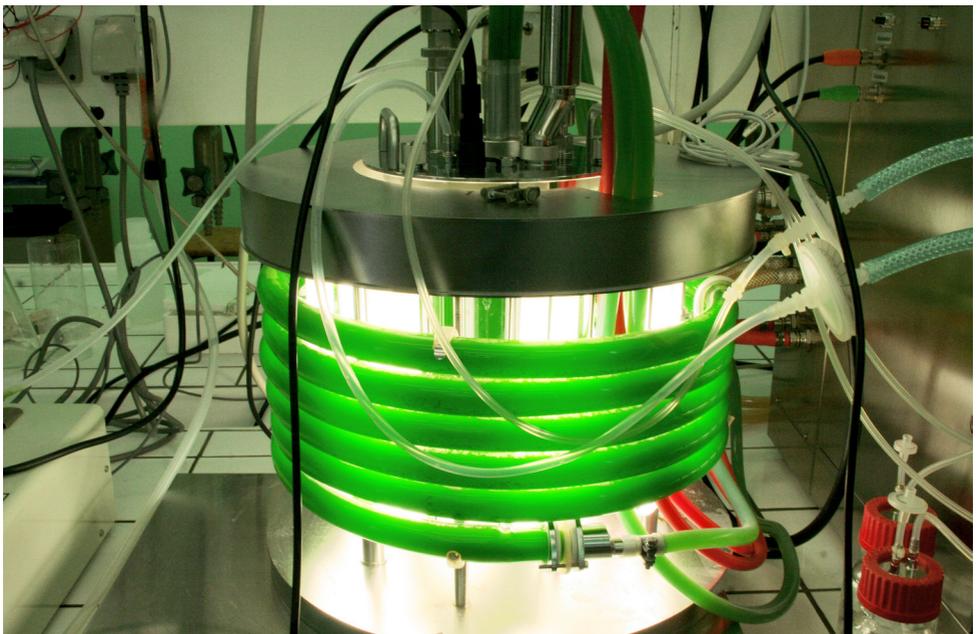
Courses		ECTS	Semester	Year
Signal processing	Signal Processing 1	4	1	MA1
	Signal Processing 2	1	1	MA1
Microwave Engineering		4	1	MA1
Digital Electronics		4	1	MA1
Analog Electronics		5	1	MA1
Hardware/Software Platforms		2	2	MA1
Power Electronics	Power Electronics 1	2	1	MA1
	Power Electronics 2	2	1	MA1
Project		10	2	MA1
Human and Social Science Credits		5	1	MA1
Image Analysis and Pattern Recognition		4	1	MA1
Advanced Control		4	2	MA1
Medical Image Processing		3	2	MA1
Instrumentation and communication	Industrial Instrumentation	2	2	MA1
	Interconnection of Sensor Devices	4	2	MA1
	Biomedical Sensors	1	2	MA1
International Relations		3	2	MA2
Work Placement - Industrial Traineeship		10	1	MA2
Biomedical Signal Processing		3	1	MA2
Optimal Control and Estimation		4	1	MA2
Biological System Modelling and Software Sensor Design		5	1	MA2
Robotics and Biomedical Applications		5	1	MA2
Discrete Event Systems		3	1	MA2
Professional Credits		5	2	MA2
International Credits		5	2	MA2
Master Thesis		20	2	MA2

More information on: <https://web.umons.ac.be/fpms>

The Master programme in “Signals, Systems and Bioengineering” was designed to incorporate the research expertise developed at UMONS in the BIOSYS Research Centre.

Admission: the courses can be chosen, in agreement with the home institution, by students on international mobility programmes (in this case no degree is awarded by UMONS, but one can be awarded by the home institution if the relevant conditions are fulfilled)

BIOSYS is an R&D Excellence group active in the scientific and engineering aspects of life sciences, including biosignal and image processing, bio-chemical system analysis and bio-process modelling, optimisation and control, ecology and environment, as well as bio-mechanics and bio-optics. Several laboratories (active in chemical and biochemical engineering, mechanical engineering, signal processing, control, computer science, mathematics and telecommunications) participate in this research group.



Electric Energy

This Master programme focuses on three core subjects: the study and modelling of electrical machines, power electronics and drives, and modern electrical power systems (including renewable energies and smart grids).

This programme was designed drawing upon research expertise developed at UMONS through the ORES “Smart Grids – Smart Metering” project, started in 2011, and in relation to the concerns of the Research Institute for Energy.

The “Smart Grids – Smart Metering” project funded by ORES (the company in charge of the electricity and natural gas distribution grids in Wallonia, Belgium) is to prepare the technological revolution represented by smart grids for the electricity sector. It aims to develop knowledge in this field as well as in the field of smart meters. It focuses on:

- studying the impact of decentralised electricity production on distribution grids
- managing electricity demand and its relevance to production
- solving computer security problems regarding the transfer of data on power distribution networks
- examining the impact of developing the use of electric vehicles on these networks



All these topics are being addressed by a team of about 10 PhD researchers.

The Research Institute for Energy organises research activities in the field of energy at UMONS. This institute brings together 85 researchers and teachers working on themes which are covered by the Joint Programmes carried out by the European Energy Research Alliance, for example, smart cities, energy storage, smart grids, wind power and photovoltaic technologies, to name but a few.

The course programme is organised over 2 academic years and is composed of 120 ECTS credits. The programme offers various courses and involves completing a first-year industrial Master project, during which the student has to tackle a real-world technical challenge, and undertaking a Master thesis, all under expert supervision. All courses are taught in English. Students can also select optional courses (in French), depending on their educational background. A special French course for beginners is offered as well.

Electric Energy

Courses		ECTS	Semester	Year
Signal processing	Signal Processing 1	4	1	MA1
	Signal Processing 2	1	1	MA1
Microwave Engineering		4	1	MA1
Digital Electronics		4	1	MA1
Analog Electronics		5	1	MA1
Hardware/Software Platforms		2	2	MA1
Power Electronics	Power Electronics 1	2	1	MA1
	Power Electronics 2	2	1	MA1
Project		10	2	MA1
Human and Social Science Credits		5	1	MA1
Energetics of Modern Power Systems		4	1	MA1
Advanced Control		4	2	MA1
Electric Vehicle Drives		5	2	MA1
Steady-State and Transient Operation of Synchronous Machines		5	2	MA1
International Relations		3	2	MA2
Work Placement - Industrial Traineeship		10	1	MA2
Power Systems Dynamics and Stability		3	1	MA2
Computer-Aided Design of Energy Systems		4	1	MA2
Electrical Networks and Protection		4	1	MA2
High Voltage Engineering		2	1	MA2
Special Machines and Actuators		3	1	MA2
Smart Grids		4	1	MA2
Professional Credits		5	2	MA2
International Credits		5	2	MA2
Master Thesis		20	2	MA2

More information on: <https://web.umons.ac.be/fpms>

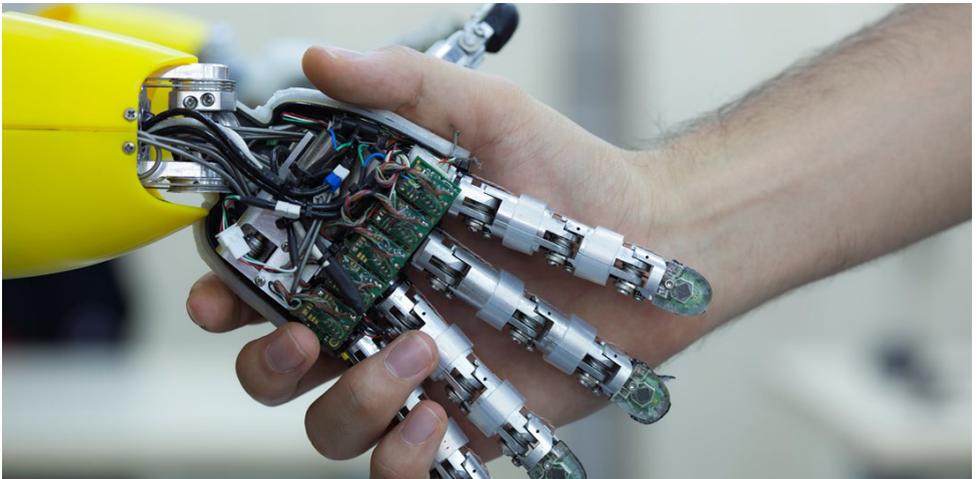
Mechatronics

The Master in Mechanical Engineering comprises a common core of 75 credits, 15 credits of elective courses, and a specialised focus of 30 credits to be chosen from “Design and Production”, “Energy and Power Systems” and “Mechatronics”. The common core programme provides a background in solid and fluid mechanics, machinery, heat transfer, and design/production, as well as in some cross-disciplinary topics, such as control and electronics. Students must also complete an industrial work placement (12 weeks) and the Master thesis.

During the second semester of the first year, students can have their full curriculum in English if they choose to focus on Mechatronics.

According to the NF E 01-010 French standard, mechatronics consists of an “approach aimed at the synergistic integration of mechanics, electronics, control theory, and computer science within product design and manufacturing, in order to improve and/or optimise its functionality”. Robots, drones, driver/pilot assistance systems in the automotive or aeronautics industry, self-balancing personal transporters, or computer-aided manufacturing systems are all examples of mechatronic applications.

The programme is constructed from the usual structure of a mechatronic system: in order to improve the performance of a given mechanical system, it is fitted with sensors and actuators. The signals from the sensors are acquired by a processing unit which, in turn, commands the actua-



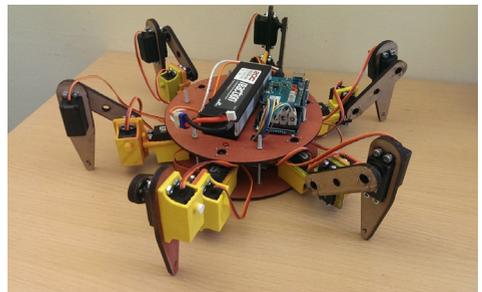
tors so as to obtain the desired behaviour of the mechanical system. The programming of the processing unit generally requires some modelling of the system and the application of control theory. Moreover, the programme includes a machine design project, whose outcome

is the computer-aided design (CAD) of a moderately complex machine, and a digital control project, consisting of programming the control of an actual mechanical system, such as a robot leg, a unicycle robot, a retrofitted plotter, etc.

Mechatronics courses available in English	ECTS	Semester
Machine Design Project	10	2
Fluid Power Actuators: Principles and Command	3	2
Advanced Control and Estimation	5	2
Modelling and Simulation of Active Mechanical Systems	4	2
Microprocessor-based Systems and Digital Control	5	2
Industrial Automation Systems	3	2

Admission: the courses can be chosen in agreement with the home institution, by students on international mobility programmes (in this case no degree is awarded by UMONS, but one can be awarded by the home institution if the relevant conditions are fulfilled)

To get the most out of this experience, students should master machine design (machine components), be familiar with at least one CAD system (SolidWorks, NX, Catia, ProEngineer, etc.), and know the basics of control theory, signal processing and programming.



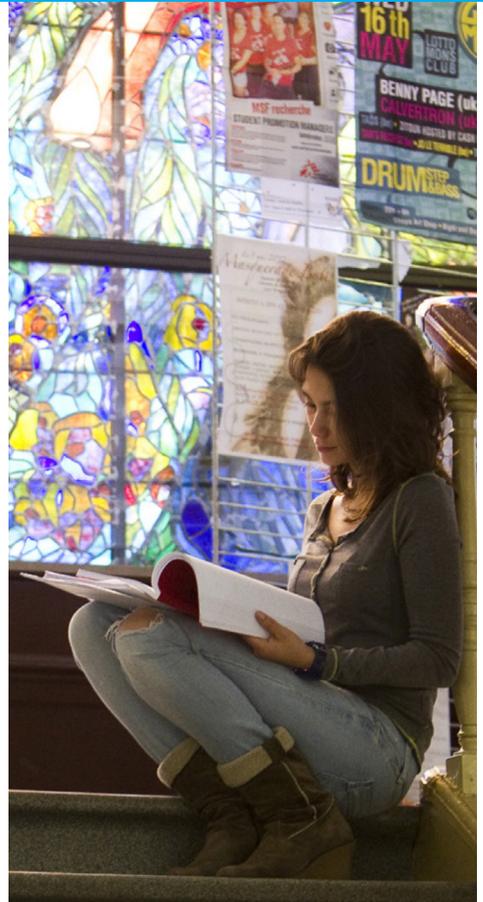
More information on: <https://web.umons.ac.be/fjms>



Study Psychology in English

The drastic and rapid changes in society reinforce the need to train specialists who can contribute to human development and well-being. The Faculty of Psychology and Education (FPSE) of the University of Mons participates in the training of these specialists by offering studies in three disciplines: Psychology, Education and Speech Therapy.

Through the programmes offered, teachers are keen to share their knowledge and practical experience with the students, stimulate their intellectual curiosity, help them to develop their analytical



and thinking skills, improve their communication skills, and sharpen their critical thinking.

Research in psychology seeks to understand and explain people's thoughts, emotions, and behaviours.

The Master programme in Psychology is taught mostly in French, but students may take up to 30 research-focused credits in English.

Psychology courses available in English	ECTS	Semester
Scientific Communication	5	1
Research Methodology	5	1
Methods and Techniques for Research in Psychology	5	1
Psychology Research Placement	15	1 or 2

Exchange students may also choose optional courses in French (including a special French language for beginners) to improve their language skills while studying in English.

Admission: the courses can be chosen, in agreement with the home institution, by students on international mobility programmes (in this case no degree is awarded by UMONS, but one can be awarded by the home institution if the relevant conditions are fulfilled).



More information on: <https://web.umons.ac.be/fpse>



Study Science in English

The Faculty of Science of the University of Mons was created in 1965 and is composed of five Departments: Biology, Chemistry, Computer Science, Mathematics, and Physics.

What could be more enthralling than pursuing studies that help us understand the universe and prepare for the future? Studying at the Faculty of Science means questioning the laws of nature.

Students learn about our closest and remotest environments, and strive to understand their mechanisms in order to manage them more efficiently. This can



help prepare a better future for all of us.

Each day, scientists invent a little piece of our future. By getting involved in science, students become actors in their own future!

The majority of courses at the Faculty of Science are taught in French, but the five Departments (Biology, Chemistry, Computer Science, Mathematics, and Physics) all offer students a selection of courses in English.

Biology

The Biology Department organises a series of courses in English on modern methods useful to the study of living organisms. The courses are organized during the second semester of the academic year (February to May).

The full programme takes 3 months to complete. Students who take the 7 courses will be credited 30 ECTS. Students may also select some of the courses and complement their stay with an internship in one of our research labs. They may also choose to prepare their Master thesis at UMONS for 30 ECTS.



Biology courses available in English	Semester
Electron Microscopy	2
Sequencing and Molecular Phylogeny	2
Biological Micro and Macrophotography: Image Processing and Analysis	2
Proteomics	2
Environmental Microbiology	2
Ribosomal RNA Biogenesis	2
Immunohistochemistry and Morphometry	2
Master Thesis in Biology	1 & 2

The courses are taught by a team of experts in the field and include a significant hands-on practical element.

Non-French speaking international students may also take the course of “French as a Foreign Language” in the first and second semester of the Master programme, for 5-6 ECTS per semester.

More information on: <https://web.umons.ac.be/fs>



Chemistry

The Chemistry Department offers a series of courses in English at Bachelor and Master levels. Students are also encouraged to prepare and write their Master thesis in English.

Non-French speaking international students may also take the course of “French as a Foreign Language” in the first and second semester of the Master programme, for 5-6 ECTS per semester.

Chemistry courses available in English	ECTS	Semester	Year
English for Chemistry	3	1	BA2
English for Scientific Communication	3	1 & 2	BA3
Electron Spectroscopy for the Characterisation of Nanomaterials	2	1	MA1
Research Internship	8	2	MA1
Calculation Methods Applied to Chemistry	3	1	MA2
Quantum Chemistry for Materials Science	3	2	MA2
Ribosomal RNA Biogenesis	3	2	MA2
Corrosion and Surface Treatments	4	2	MA2
Semiconductors	5	2	MA2
Reactive Extrusion Processing of Polymer Materials	3	2	MA2
Master Thesis	28	1 & 2	MA2



More information on: <https://web.umons.ac.be/fs>

Computer Science

The Computer Science Department offers a series of courses in English at Bachelor and Master levels. Students are also encouraged to prepare and write their Master thesis in English.



Computer Science courses available in English	ECTS	Semester	Year
English for Science	3	1 & 2	BA2
Signal Processing	5	1	BA3
Real-Time Computing Systems	3	1	BA3
Software Evolution	6	2	MA1
High Performance and Cloud Computing	3	1	MA1
Project	12	1 & 2	MA1
English for Scientific Communication	3	1 & 2	MA1
Image Analysis and Pattern Recognition	5	1	MA2
Audio-Processing	4	2	MA2
Project – Initiation to Research	8	1 & 2	MA2
Scientific Research Trip	12	1 & 2	MA2
Research Seminar in: (choose one) - Cryptography - Verification - Graph Theory - Networks - Software Engineering - Algorithms - Databases	10	1 & 2	MA2
Master Thesis in Information Technology	25	1 & 2	MA2

Non-French speaking international students may also take the course of “French as a Foreign Language” in the first and second semester of the Master programme, for 5-6 ECTS per semester.

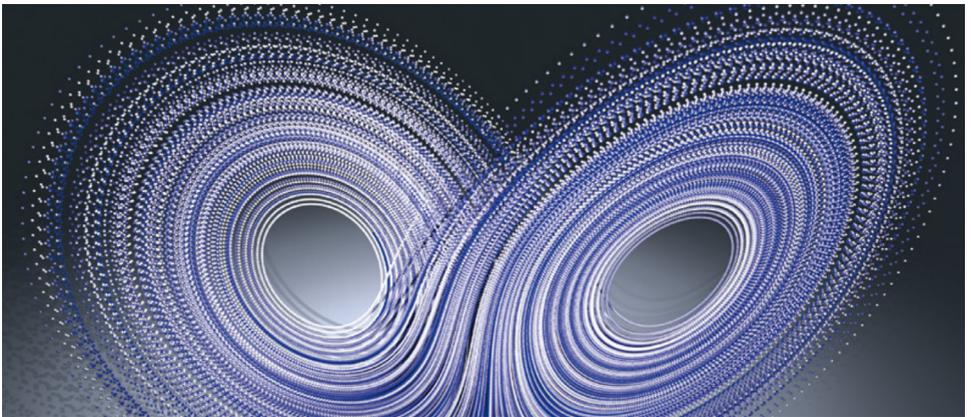
More information on: <https://web.umons.ac.be/fs>

Mathematics

The Mathematics Department offers a series of courses in English at Bachelor and Master levels. Students are also encouraged to prepare and write their Master thesis in English.

Non-French speaking international students may also take the course of “French as a Foreign Language” in the first and second semester of the Master programme, for 6 ECTS per semester.

Mathematics courses available in English	ECTS	Semester	Year
English for Science	3	1 & 2	BA2
English for Scientific Communication	3	1 & 2	BA3
Integrated Project	18	1 & 2	MA1
Research Methodology	3	1	MA2
Seminars in: (choose one or more) - Numerical Analysis - Model Theory and Applications (6 ECTS) - Geometry of Banach Spaces - Local fields - Model Theory and Applications - Effective Mathematics	12	1 & 2	MA2
Master Thesis in Mathematics	30	1 & 2	MA2



More information on: <https://web.umons.ac.be/fs>

Physics

The Physics Department offers a series of courses in English at Bachelor and Master levels. Students are also encouraged to prepare and write their Master thesis in English.

Non-French speaking international students may also take the course of “French as a Foreign Language” in the first and second semester of the Master programme, for 5 ECTS per semester.



Physics courses available in English	ECTS	Semester	Year
English for Science	3	1 & 2	BA2
English for Scientific Communication	3	1 & 2	BA3
Project in Physics	15	2	MA1
Particle Radiation Detection and Measurement	5	2	MA1
Semiconductors	5	2	MA1
Advanced Ceramics	5	1	MA2
Recent Trends in Material Science	5	2	MA2
Master Thesis in Physics	30	1 & 2	MA2

Admission (for all Departments of the Faculty of Science)

The courses can be chosen, in agreement with the home institution, by students on international mobility programmes (in this case no degree is awarded by UMONS, but one can be awarded by the home institution if the relevant conditions are fulfilled).

More information on: <https://web.umons.ac.be/fs>



Study Biomedecine in English

The Faculty of Medicine and Pharmacy of the University of Mons welcomed its first students in October 1973. There are already numerous doctors, chemists and biomedical scientists that can testify to the rigorous humanistic education given at the “Plaine de Nimy” campus.

The Faculty’s teacher-researchers, whether mathematicians, physicists, chemists, biochemists, biologists, pharmacists or physicians, also bolster to our training offer, further ensuring that high quality education is delivered to all.



Optimal supervision, a good balance between the number of students and the teaching spaces, and accessibility to the research services integrated into the Faculty infrastructure all contribute to this fact.

The Faculty offers a two-year Master course in Biomedicine Specialist Focus on Neuroscience. Its programme provides a unique interdisciplinary and integrated training approach that covers all major topics of brain research, from normal brain functions to brain disorders. As an exchange student, you have the opportunity to create your own programme in order to meet your career objectives, in agreement with your home institution.

Biomedicine - Neuroscience

At the interface between psychology and biology, this programme provides both theoretical and practical research training. This specialisation covers the field of Neuroscience from brain cells to cognition, using knowledge from different neuroscience disciplines, such as molecular

biology and behavioural testing, to study the brain and know how it functions.

The programme will help you to understand the mechanisms that are the reason for certain psychological processes and psychiatric and neurological disorders and will provide you with the skills needed to conduct fundamental and pre-clinical research into these disorders and mechanisms.

Courses	ECTS	Semester	Year
Biomedical Neuroscience (24 ECTS)			
Brain Plasticity	4	1	MA1
Research Techniques in Neuroscience	6	1	MA1
Neuropharmacology	4	1	MA1
Neurotoxicology and Safety Pharmacology	4	1	MA2
Integrative Biomedicine	6	1	MA1
Human Neuroscience (16 ECTS)			
Clinical and Psychological Neuroscience: group co-working	8	1	MA1
Neuroscience in Society	8	1,2	MA2
Transversal Skills (20 ECTS)			
GMP/GLP	2	1	MA2
Interdisciplinary Programme in Healthcare Innovation	2	2	MA2
Intellectual Property	2	1	MA2
Innovation Awareness Project	3	1,2	MA2
Certificate in Animal Testing	8	1	MA1
Practical Work (60 ECTS)			
Experimental work in neuroscience laboratory	10	1,2	MA1
Scientific writing and communication	10	2	MA1
Master's dissertation	19	2	MA2
External training	21	2	MA2

More information on:

<https://web.umons.ac.be/fmp/en/training-offer/biomedicine-neuroscience/>

Writing a PhD Thesis in English at UMONS

The University of Mons offers PhD education supervised by experts, which can be done in English (the main language for international research) in most of the fields covered by its faculties:

- PhD in Architecture and Urban Planning
- PhD in Arts and Art Sciences
- PhD in Biomedical and Pharmaceutical Sciences (choice of specialisation)
- PhD in Economics and Management
- PhD in Engineering Sciences and Technology
- PhD in Interpreting
- PhD in Medical Sciences
- PhD in Philosophy
- PhD in Psychology and Education
- PhD in Science (specialisation in Biology, Chemistry, Computer Science, Mathematics, or Physics)
- PhD in Political and Social Sciences
- PhD in Language, Literature and Translation Studies

There are also many opportunities to write a Master thesis with supervision in English.

More information on: <https://web.umons.ac.be/research>

Testimonials

"I considered a PhD as a way to delve deeper into issues that had emerged during my studies and my clinical practice as a speech therapist. Being able to continue this in-depth study systematically through research seemed to be the appropriate route."

Doctor, Faculty of Psychology and Education, Head of the paramedical department and referent psychologists, Grand Hôpital de Charleroi



"The small size of our university means that the academic staff and I knew each other well. This environment is quite reassuring and is conducive to carrying out a thesis under good supervision."

Julien Leblud - Doctor at the Faculty of Science, researcher in the field of mobility and road safety

Linguistic and cultural recipes for a successful stay at the University of Mons

APERITIF

Tandemons

In collaboration with the International Relations Office and the students, a reception committee for international mobility students has been set up. Tandems, composed of a UMONS student and an international student, promote the better integration of the incoming student and allow the UMONS student to discover another culture or cultures.

STARTER

French as a Foreign Language for international students

Throughout the academic year, French as a foreign language (FLE) courses are organised in the evening for international students and researchers (56 hours / 5 ECTS per term).

Students are divided into groups, based on their language level on arrival (A1, A2 or B1).

Evening courses are preceded by optional preparatory courses (intensive sessions). These are face-to-face courses and cover not just language but also cultural activities, which encourage the integration of the student or researcher in the local and national socio-cultural environment.

SORBET

Remediation: English and Dutch

Interfaculty remediation courses in English and Dutch (evening courses) are offered to newcomers who have an insufficient language level, which could put them in difficulty in their normal programme.

MAIN COURSE

Credited language initiatives

Courses and seminars in English, Dutch and Spanish are integrated into the Bachelor's and Master's programmes.

Our language courses consist of face-to-face classes, exercises, conversation seminars, laboratory sessions, distance learning courses and other educational activities (flipped classroom, off-site activities, etc.).

Placement reports, Master's dissertations and scientific posters, written and presented in English, are validated with credits and assessed based on linguistic quality.

DESSERT

Certification of Language Skills

The following international tests are organised at UMONS:

- **TEFAQ** (Test d'évaluation du français adapté au Québec) and TEF Canada
- **TOEIC** (Test of English for International Communication)
- **TOEFL** (Test of English as a Foreign Language)
- **IELTS** (International English Language Test System)
- **CNaVT** (Certificaat Nederlands als Vreemde taal)

More information on: <https://web.umons.ac.be/en/international/tandemons/>

Information

- Feel free to contact the International Relations Office for any information about our programmes in French or English.

UMONS International Relations Office

Place du Parc, 22 - 7000 Mons, Belgium
Phone +32 65 37 32 36
relint@umons.ac.be

- To apply for a University Certificate or Master programme, please contact the Registration Office.

UMONS Registration Office

Place du Parc, 22 - 7000 Mons, Belgium
service.inscriptions@umons.ac.be

View this brochure online on: <http://bit.ly/UMONS-Study-in-English>