

MASTER OF SCIENCE IN ELECTROMECHANICAL ENGINEERING (MECHANICAL CONSTRUCTION)

MINORS: ELECTIVE COURSES MAWERK_2(EN)

120 ECTS CREDITS - LANGUAGE: ENGLISH

The Faculty of Engineering and Architecture (FEA) offers most of its Master's Programmes in Engineering in English. This underlines the faculty's international ambition, as well as the importance of international education and multiple language skills for students.

WHAT

The world of electromechanical engineering encompasses development, design, manufacturing, testing and control of tools, machines, vehicles and other electrical or mechanical systems, as well as research on these topics. The Master of Science in Electromechanical Engineering is a two-year degree programme intended to prepare students for a future technical leadership role in industry. The programme offers in-depth training in all aspects of electromechanical engineering and its economic and social implications based on a profound scientific basis.

Graduates will have acquired an attitude of scientific synthesis, analytical reasoning as well as scientific and technical independency. Training in research skills provides mastery in developing, implementing and monitoring technical and scientific innovations.

STRUCTURE

The programme consists of a general module, main subject modules, elective courses and a dissertation. The general module contains courses on all subjects related to Electromechanical Engineering, ranging from electrical drives over machine manufacturing to management skills. Students can choose one out of five main subject modules with specialist courses on different subjects of interest. The main subject **Mechanical Construction** focuses on design, manufacturing and maintenance of machines and mechanical equipment.

Through elective courses students broaden their knowledge and skills in technical and non-technical subjects. The Master Dissertation is a final step in the learning process. It aims at training the ability to independently perform scientific research.

LABOUR MARKET

Masters in Electromechanical Engineering graduating in one of the five main subjects are employed in all branches of industry. Both in government agencies and private companies, their field of activity is broadly varied: electrical energy production and distribution, electrical and mechanical equipment manufacturing, metal industry, building construction, transport, consultancy, banking and insurance. Students who opted for the main subject Mechanical Construction find work in companies developing machines

and mechanical constructions for all industrial sectors. This comprises mechanical design (materials selection, component selection, lifetime analysis), production methods (machining, forming ...) and construction methods (welding, fastening...). Particular attention goes to safety, sustainability and cost related aspects.

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

1 Rechtstreeks:

- Bachelor in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde-elektrotechniek
- Bachelor in de ingenieurswetenschappen: werktuigkunde-elektrotechniek

2 Rechtstreeks, na check door de inrichtende faculteit van formele toelatingsvereisten:

- Bachelor in de ingenieurswetenschappen, afstudeerrichting: elektrotechniek nevenrichting: werktuigkunde
- Bachelor in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde nevenrichting: elektrotechniek

3 Na het met succes voltooiën van een voorbereidingsprogramma:

MIN 30 SP - MAX 90 SP

- a opleidingen nieuwe structuur:
 - Bachelor in de bio-ingenieurswetenschappen
 - Bachelor in de fysica
 - Bachelor in de industriële wetenschappen, afstudeerrichting: elektromechanica
 - Bachelor in de industriële wetenschappen: elektromechanica
 - Bachelor in de ingenieurswetenschappen (KMS)
 - Bachelor in de nautische wetenschappen
 - Bachelor in de wiskunde
 - Een diploma van een opleiding 'Bachelor of Science in de ingenieurswetenschappen' (met inbegrip van 'architectuur')
 - Master in de nautische wetenschappen
- b opleidingen oude structuur:
 - Licentiaat in de natuurkunde
 - Licentiaat in de nautische wetenschappen
 - Licentiaat in de wiskunde

aantal studiepunten te bepalen door de faculteit

- Bachelor of Engineering Technology, afstudeerrichting: Electromechanical Engineering

4 Rechtstreekse toelating voor het volgen van een brugprogramma (horizontale instroom):

- a opleidingen nieuwe structuur:
 - Master in de industriële wetenschappen: elektromechanica
 - Master in de industriële wetenschappen: elektrotechniek
 - Master in de industriële wetenschappen: energie
 - Master in de industriële wetenschappen: industrieel ontwerpen
 - Master of Electromechanical Engineering Technology

b opleidingen oude structuur:

- Industrieel ingenieur in elektromechanica

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

Information on admission requirements and the administrative procedure for admission on the basis of a diploma obtained abroad, can be found on the following page: www.ugent.be/admission

Additional information:

Students who wish to enrol for the Master of Science in Electromechanical Engineering can enter the programme without any prerequisites if they hold the following diploma: an academic diploma of Bachelor (or Master) of Science in Engineering (university level, minimum three years), with the main subject in Electromechanical Engineering or an equivalent to this.

Admission can only be granted after an individual application procedure. The Study Programme Committee will make the final decision whether to accept the application or not. The Study Programme Committee can decide that students need to follow a preparatory course or an individual Master's programme, for instance for students who hold another diploma of Bachelor or Master.

The language requirements for this study programme can be found on: www.ugent.be/language/requirements

PRACTICAL INFORMATION

Study programme

studiekiezer.ugent.be/master-of-science-in-electromechanical-engineering-mechanical-construction-en/programma

Information sessions

Graduation Fair

afstudeerbeurs.gent/en/students/further-studies

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Open Days

30 April 2021 - - virtual tours

Application deadline

For students who **need a visa**: 1st of March

For students who **do not need a visa**: 1st of June

[Read more](#)

Tuition fee

More information is to be found on: www.ugent.be/tuitionfee

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Contact (for international degree students)

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