

## Master of Science in Chemistry



### DURATION

**2 years (full-time), 120 ECTS**

**1 year (full-time), 60 ECTS**

### APPLICATION DEADLINE

**1 March** (for non-EEA citizens)

**1 June** (for EEA citizens)

### ACADEMIC CALENDAR



**1st semester:** 3rd week of September → end of January (exams in January)



**2nd semester:** 2nd week of February → July (exams in June)

[www.kuleuven.be/academiccalendar](http://www.kuleuven.be/academiccalendar)

Are you looking for a career as an academic or industrial chemist? If so, your search stops here. Aiming to train the next generation of researchers, KU Leuven's MSc in Chemistry puts the globally recognised expertise of its chemistry department at your disposal. Beyond course and lab work, your master's thesis will develop your skills in formulating a research question, placing it in its correct chemical and societal perspective, and answering it. Depending on your preference for an academic or industrial career, KU Leuven will teach you to become a top specialist among peers or a productive player in a valorisation-driven environment.

It goes without saying that pursuing a PhD in Chemistry after finishing your MSc programme will even further increase your research and managerial skills as well as your market value. That is exactly why the majority of our graduates go on to pursue a PhD at KU Leuven or other renowned research institutes, where a KU Leuven MSc in Chemistry is highly valued.

### A research-driven environment

The academic staff of the Department of Chemistry is devoted to high-quality research, embedded in well-established collaborations with other universities, research institutes and companies across the world. Their primary goal is to obtain insight into the composition, structure and properties of matter and the design, synthesis and development of new (bio)molecular materials. This generally leads to applications with significant economic or societal impact.

The same top-level researchers also provide the teaching in the Master of Chemistry programme. Backed by their state-of-the-art expertise, they will introduce you to the latest insights in the field of chemistry and will allow you to do thesis research in one of the many exciting fields in chemistry.

### Selected research key words

Synthetic chemistry - combinatorial chemistry - green chemistry - bio-organic chemistry - polymer architecture - computational chemistry - quantum chemistry - rare earths - ionic liquids - hydrometallurgy - coordination chemistry - microwave assisted organic synthesis - microflow chemistry - kinetics - chemical reaction pathways - biosensors - signal transduction - crystallography - biomolecular modelling - docking - fluorescence correlation spectroscopy - single molecule spectroscopy - polymer synthesis - functional and bio-based polymers - nanophotonics and plasmonics - magnetic nanoparticles - (photo)catalysis - photophysics - organic solar cells and light emitting diodes - spintronics - nonlinear optics - photoswitchable proteins

### Programme

The overall aim of this programme is to train you to conduct research in an industrial or academic setting. Upon completion of the programme, you will be able to translate a given problem into a chemical research question and to explore the answer to this question based on your knowledge of specific and advanced chemistry topics. It won't matter to you if you will have to do this independently or in a team. Reporting your findings to peers or non-experts will be an acquired skill as well.

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### Discover KU Leuven

Founded in 1425, the University of Leuven (KU Leuven) has been a centre of learning for almost six centuries. Today, it is Belgium's largest and highest-ranked university as well as one of the oldest and most renowned universities in Europe. As a leading European research university and co-founder of the League of European Research Universities (LERU), KU Leuven offers a wide variety of programmes in English supported by high-quality interdisciplinary research.

Within the field of science, engineering, and technology, KU Leuven offers five academic educational profiles organized in five faculties: Science, Engineering Science, Bioscience Engineering, Engineering Technology, and Architecture. Boasting an outstanding central location in the heart of Europe, KU Leuven offers a truly international experience, high-quality education, world-class research and cutting-edge innovation.

As a graduate pursuing a career in the chemical industry you will be able to apply your knowledge in a global, economically and technologically-driven environment. Graduates embarking on a research career will have acquired sufficient knowledge of a specialised subfield of chemistry, including modern chemical instrumentation, and be up to date with recent findings in order to function effectively in a challenging research environment within or outside the university.

The full programme comprises 120 ECTS credits, including 18 ECTS for compulsory courses and 54 ECTS for electives. In addition, you develop advanced practical skills in an internal internship to the value of 18 ECTS, while the remaining 30 ECTS are allocated to the master's thesis.

### Admission requirements

To be eligible for the Master of Chemistry, you must have obtained an academic bachelor's degree in the field of chemistry or a related field with sufficient chemistry background.

Good knowledge of the English language is essential. Unless you are of Anglo-Saxon origin, you will be asked to submit a TOEFL or IELTS certificate. If you have already completed an English-language academic programme at an Anglo-Saxon university, your degree will be considered sufficient proof of your English proficiency.

Programme admission: [www.kuleuven.be/ma/mchemel](http://www.kuleuven.be/ma/mchemel)

General admission: [www.kuleuven.be/admissions](http://www.kuleuven.be/admissions)

### Tuition fees

The tuition fee for the 2016 – 2017 academic year is € 890 for all students. The tuition fee for future academic years may be higher as a result of indexation. Please consult the website for the most recent information: [www.kuleuven.be/tuitionfees](http://www.kuleuven.be/tuitionfees).

### Application procedure

KU Leuven uses an online application system. You can download and submit your application form via [www.kuleuven.be/application](http://www.kuleuven.be/application). Students with a Flemish degree can consult [www.kuleuven.be/studentenadministratie](http://www.kuleuven.be/studentenadministratie).

### Career perspectives

The Master of Science in Chemistry offers a wide range of specialisations. Therefore, many career options are available. More than half of our alumni work in industry, training or government positions. Within industry, graduates can opt for a technical, commercial or research-oriented career. Since the chemical industry is also a major industrial sector throughout Europe and the rest of the world, employment opportunities are enhanced by obtaining a PhD. A few examples of professional domains where chemists are needed include industry (chemistry, petrochemistry, medical sector, pharmaceutical industry, agrochemistry, food industry, etc.), government or public administration, and research institutes.