Join the cutting edge of contemporary chemistry! Theoretical and computational chemistry will mark the coming new era of the molecular sciences. The Erasmus Mundus Master of Theoretical Chemistry and Computational Modelling is a joint initiative of seven European Universities, including KU Leuven. Coordinated by the Universidad Autónoma de Madrid. The international programme is recognized by the Erasmus Mundus Action for joint Master’s courses, and has acquired the Euromaster label from the European Chemistry Thematic Network Association (ECTNA), which came into effect in 2010.

This programme is organised in cooperation with:

- Universidad Autónoma de Madrid (coordinating institution)
- Universiteit Groningen
- Università degli Studi di Perugia
- Universidade do Porto
- Université Paul Sabatier - Toulouse III
- Universitat de Valencia.

**Programme**

The Erasmus Mundus Master of Theoretical Chemistry will train you to master a wide range of theoretical and computational tools. The first year brings all participants to a common level of excellence. The second year starts with a four-week intensive course, taking place over the summer between the two years. It welcomes several international experts as lecturers and is organised by one of the participating universities. The remainder of the second year is devoted to tutorials on the material of the intensive course and to a thesis project, carried out in part at one of the other universities in the consortium.

For detailed descriptions of the courses and for the course timetable, please consult www.kuleuven.be/ma/tccm.

**Admission requirements**

The TCCM International Committee takes care of the admission of students and selection of the Scholarship holders. All application files (including those of students from countries outside Belgium and those with other Bachelor’s degrees) are evaluated by the committee. You should fill in and submit the corresponding on-line application form that will be published each year on the web page of the Master: https://emtccm.qui.uam.es/

Candidates holding a Bachelor’s degree in chemistry, physics or material science (or an equivalent degree as authorised by the legislation of the corresponding European country) are eligible for admission. Holders of other scientific Bachelor’s degrees may be accepted provided the student takes complementary levelling courses under the supervision of his/her local tutor. Candidates must submit an internationally recognised English proficiency certificate equivalent to a TOEFL score of minimum 500/213, or an IELTS score of 6.
The same criteria apply to students from third countries (outside the EU). For students from third countries or students with Bachelor’s degrees different from those mentioned above, the prerequisite knowledge level should be certified, as specified above.

For students coming from third countries or holders of a Bachelor’s degree different from those mentioned in the admission requirements, proficiency in the following (or equivalent) subjects at the level of the Chemistry Eurobachelor must be certified: Chemical Bonding, Atomic and Molecular Structure and Intermolecular Interactions, General Physics, Mathematics, General Physical Chemistry, Thermodynamics and Kinetics, Spectroscopy. Some deficiencies in mathematics, physics or chemistry may be remedied through the levelling courses. If there are deficiencies in more than two of these areas, however, the applicant will not be accepted.

Programme admission: www.kuleuven.be/ma/tccm
General admission: www.kuleuven.be/admissions

Application procedure

Both European and non-European students can apply for Erasmus Mundus scholarships. All applications for admission and scholarships must be submitted via the online application on the website of the coordinating institution.

Please consult the website for detailed information: emtccm.qui.uam.es

Career perspectives

In addition to commanding sound theoretical knowledge in chemistry and computational modelling, you will be equipped to apply or develop any of the scientific codes mastered in the programme in a work environment. You will have attained the necessary skills to pursue a scientific career as a doctoral student in chemistry, physics or material science will also be qualified to work as an expert in molecular design in the pharmaceutical industry, at petrochemical companies or in the new-materials industry. You will also have a suitable profile to work as a computational expert.

Contact
www.kuleuven.be/ma/tccm