

**EM3E**  
**Erasmus mundus Master in Membrane Engineering**

**Duration:** 2 years

**Course description:**

The Master in Membrane Engineering EM3E offers an advanced education programme related to membrane science and engineering at the interface between material science and chemical engineering and focused on specific applicative fields. It involves 6 HEI of 5 European countries: University of Twente (Netherlands), University of Lisboa (Portugal), University of Zaragoza (Spain), Institute of Chemical Technology Prague (Czech Republic), University Paul Sabatier (Toulouse, France) and University Montpellier 2 (France, coordinating organisation). Associated partners are the University of Calabria (Italy), the Catholic University of Leuven (Belgium) and the University Hassan II of Mohammedia (Morocco). The pedagogical project of Master comes from the closely collaboration between partners through the European Research Network of Excellence NanoMemPro.

The Master course will have duration of two years: 4 semesters corresponding to 30 ECTS each and given at least in 3 countries.

In the first year, theoretical and practical fundamentals will be provided: After an integration week, students will enter the Master at University Montpellier 2 or at University Paul Sabatier. In each of these universities, there will be common mandatory and optional units, corresponding to teaching and research field of excellence of each partner (material science in Montpellier and physico-chemical processes in Toulouse). This first semester will be adapted to students by taking into account the background and their learning objectives. During the second semester, students will follow mandatory teaching units to acquire knowledge and skills on process modelling and simulation at the Institute of Chemical Technology of Prague.

During the second year, students will choose to pursue their training in one of three university in order to acquire specific skills in an application field: Nanosciences and Nanotechnology (University of Zaragoza), Energy and Environment (University of Twente), and Biotechnologies, Food and Health (University of Lisboa). The last semester will be devoted to a 6 months master thesis in a university or an industrial company.

The number of enrolled students is expected to be 30. The language of instruction is English. During the study period, the courses and activities country languages and culture are also provided.

Students will be awarded with a multiple Master's degrees from the three hosting universities, together with a Diploma Supplement.

**Website:** <http://em3e.eu/>

**Partners:**

UNIVERSITY OF MONTPELLIER II, France (Co-ordinating Institution)  
INSTITUTE OF CHEMICAL TECHNOLOGY PRAGUE, Czech Republic  
UNIVERSITY OF ZARAGOZA, Spain  
PAUL SABATIER UNIVERSITY, France  
UNIVERSITY OF TWENTE, Netherlands  
NEW UNIVERSITY OF LISBON, Portugal

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**Maximum grant:**

710 400 € (30 000 € consortium + 680 400 € scholarships), 2011  
684 600 € (30 000 € consortium + 654 600 € scholarships), 2012  
734 000 € (30 000 € consortium + 704 000 € scholarships), 2013