CHEMICAL NANO-ENGINEERING

ERASMUS MUNDUS MASTER DEGREE

https://chimie-sciences.univ-amu.fr/chemical-nanoengineering/

1. MARSEILLE, France:

Aix*Marseille université
Initiative d'excellence

2. ROME, Italy

Università di Roma Tor Vergata

http://chem-nano-eng.uniroma2.it/

3. WROCLAW, Poland

Wrocław University of Science and Technology

...the new deal for the nano world...

PARTNERS

Aix-Marseille University
Prof. Bogdan Kuchta
(coordinator)
(bogdan.kuchta@univ-amu.fr)

University of Rome
"Tor Vergata"
Prof. Maria Luisa Di Vona
(divona@uniroma2.it)

Wroclaw University of Science and Technology
Prof. Szczepan Roszak
(szczepan.roszak@pwr.edu.pl)

Associated Partners:

1.Chemical Engineering Department, University of Queensland, Australia

2.Laboratory of Porous Solids, National University of San Luis, Argentina

3. Engineering School, Federal University in Fortaleza, Brazil

4. Laboratory of Charles Coulomb, University Montpellier, France

5. Nano-structured Materials Group, The University Pablo de Olavide of Seville, Spain

6. Research Department, Turin Polytechnic University in Tashkent (TTPU), Uzbekistan

7. Chemical Engineering Department of the Lvov Polytechnic, Ukraine

8. Physics Department, University of Missouri, Columbia, USA

9. Department of Chemistry, Northeastern University, Boston, USA

10.T.I.M.E Association, http://www.time-association.org/membership/list/ , Technical Universities from Europe (14 countries), Australia, Brazil, Japan, Russia, Turkey and China

The list of Associated Partners is open

Who should apply?

Students with a Bachelor or Equivalent Degree in Science or Engineering (Chemistry, Physics, Materials Science, Chemical, Mechanical, Electronic Engineering…)

2 Year Master Program within

3 Partner Universities

International Master Thesis at Partner or Associated Partner Institutions (Universities or Industrial Companies)

Intensive Training: Experimental Methods and Numerical Modeling

---

Summer School Offered to All Students

Complimentary Cultural and Historical Program

Chemical Nano-Engineering Curriculum (120 ECTS)

	Marseille Sem.1	Wroclaw Sem.2	Rome Sem.3	Sem.4
Lecture modules	(Nano-Chemistry)	(Nano-Engineering)	(Nano-Applications)	
Foundations in Chemistry and in Nano-science	Nano-Electrochemistry (3 ECTS)			Master Thesis
	Solid State Chemistry and Nano-materials (7 ECTS)	Structure and Crystallography of Solids (3 ECTS)	Characterization of Nano-Engineering Systems (6 ECTS)	
	Organic Chemistry of Nano-materials (3 ECTS)		NMR of Nanosystems (2 ECTS) (Option A: Chemistry)	
Chemical and Materials Engineering		Synthesis and Fabrication of Nano-engineering Systems (3 ECTS)	Nanoscale Synthesis Methods (5 ECTS)	
		Fabrication of Smart Polymers (3 ECTS)	Macromolecular and Supramolecular Chemistry/ (5 ECTS)	
Applications of Nano-engineering		Engineering of Nano-machines (2 ECTS)	Structural and Functional Properties of Biopolymers (3 ECTS) (option A: Chemistry)	
		Bio-photonics (2 ECTS) Biomaterials-Biomedical Devices (3 ECTS)	Nanoscale Energy Technology, Nano-sensors and Micro-fluidics (5 ECTS)	
Thermodynamics and Modeling of Nano-materials	Basic Quantum Chemistry Modeling (3 ECTS)		Nanoscale Structural transformations and Kinetics (2 ECTS) (option B: Modeling)	
	Computational Modeling of Nano-Systems (7 ECTS)	Nanostructures in Industrial and Numerical Applications (5 ECTS)	Probability and Statistical Methods for Modelling Engineers (3 ECTS) (Option B: Modeling)	
	Thermodynamics of Materials- Interactions and Surface Forces (3 ECTS)			
	Nano-engineering Seminar + Project (2 ECTS)	Nano-engineering Seminar + Project (2 ECTS)	Nano-engineering Seminar + Project (2 ECTS)	
	Language (2 ECTS)	Language (2 ECTS)	Language (2 ECTS)	
		Economics and Management (5 ECTS)		

Erasmus Mundus Scholarships:

Up to 34 000 € (EU/EEA students, participation fee: 4 500 €/year)

Up to 49 000 € (non-EU/EEA students, participation fee: 9 000 €/year)

List of Documents for Application

1. Application form (see website) containing your complete and up-dated curriculum vitae
2. Officially certified copies and translations into English of your diplomas (please send a scanned version by e-mail)
3. Certified English translation of transcripts of your academic grades
4. Motivation letter
5. Officially certified document of language test (copy of the TOEFL/IELTS score report, or equivalent) if you are not graduated from a University where English is the teaching language
6. Scanned copy of your passport or any other ID
7. Photograph
8. Two recommendation letters (see website: model recommendation letter form) to be sent by referees directly to the coordinator by e-mail ONLY
9. Essay on nano-engineering (4 pages maximum)

Application files are to be e-mailed to the Coordinator:

Professor Bogdan KUCHTA
e-mail: bogdan.kuchta@univ-amu.fr

Deadline for Applications: February 18th, 2018

Verify the website before sending the application:

https://chimie-sciences.univ-amu.fr/chemical-nanoengineering/

Why Chemical Nano Engineering?

Industry demand

There will be big demand for nano-engineers in any new technology.

International experience

The program provides its students with the profound experience of working and studying in multiple countries in an international environment.

Innovation and R&D

The program links studies with product and service development skills. The ability to innovate and develop new products and services is what has the most potential for creating new business.

Competitive Erasmus Mundus Scholarships

The generous Erasmus Mundus scholarships offered for the best students allow you to concentrate on your studies without financial difficulties.

Alumni networking

The alumni network helps to find the most interesting jobs in the world.