

SCIENCES, TECHNOLOGIES AND HEALTH

Engineering of functional materials

Master in Materials science and engineering



Target level
Baccalaureate
+5



ECTS
120 credits



Duration
2 years

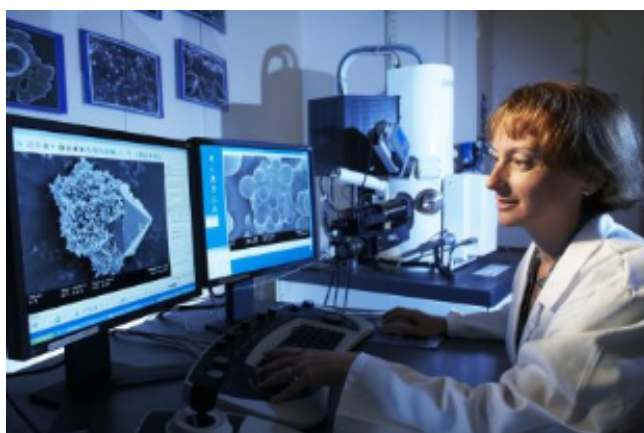


Component
Grenoble
INP - Phelma
(Physique,
électronique
et matériaux),
UGA



Language(s) of
instruction
English

Presentation



This internationally oriented course serves as a structure for hosting the FAME (Functional Advanced Materials Engineering) master, an Erasmus Mundus Master in partnership with several other European institutions (<http://www.emmi-materials.cnrs.fr/index.php/education-and-training>). Accordingly, the program hosts both students of the FAME master in 1st year, who then go to one of the network's other institutions for their 2nd year, and students in master 2nd year, who have completed their master 1st year in Germany in the framework of FAME. In addition, this program is available directly at Grenoble INP in the 2 years under the same conditions as for the students of the Erasmus Mundus

master, and as a dual course for students of Grenoble INP-PHELMA.

This program, **taught entirely in English**, has specific registration fees of €4000 / year.

The aim of this master is to train researchers for industry and academia in the area of advanced functional materials. One of the objectives after the master is for a large number of graduates to go on to doctoral studies (>50%), in particular joint theses between university laboratories and industrial partners (large choice in the Grenoble region).

Skills

- Development of materials
- Electrochemical and physicochemical characterisation methods
- Unitary separation operations
- Matter and heat exchange
- Experimental plan
- Simulation and Modelling of electrochemical processes
- Electrochemical kinetics and electrocatalysis
- Electrochemistry of materials and materials for electrochemistry (semiconductors, metals, oxides, etc.)

International education : Internationally-oriented programmes

International dimension

100 % in English

Organisation

Admission

Access conditions

Entry is possible after a course in the fields of materials chemistry, physical chemistry, process engineering and electrochemistry. Students enter at 2st year master level after completing an licence 3rd year (bachelor degree), or at 2nd year after completing an master 1st year. To be considered for this master, apply directly via the web using the EQUIV online application.

Candidature / Application

- Note : you can apply for more than one course within Grenoble INP. In this case, you must specify this when registering your application dossier and send a complete dossier for each course. Before the deadline indicated on the dossier, tick the box "Make my application final" in the EQUIV application for your dossier to be taken into account
- Prepare your application on paper and compile the requested documents
- Send your COMPLETE dossier no later than : 26 june for students from a Member State of the European Union / 29 may for students from a country outside the European Union

to : Admission sur titre - Master Electrochimie et procédés Phelma - 3 Parvis Louis Néel - CS 50257 38 016 GRENOBLE Cedex 01 If you are applying to PHELMA for more than one course (for example Master EIP and AST) you must send a complete application dossier for each course. For students residing in the following countries: ALGERIA, ARGENTINA, BENIN,

BRAZIL, BURKINA FASO, CAMEROON, CHILE, CHINA, COLOMBIA, CONGO BRAZZAVILLE, COTE D'IVOIRE, CZECH REPUBLIC, GABON, GUINEA, INDIA, JAPAN, LEBANON, MADAGASCAR, MALI, MAURITIUS, MEXICO, MOROCCO, PERU, RUSSIA, SENEGAL, SOUTH KOREA, SYRIA, TAIWAN, TUNISIA, TURKEY, UNITED STATES, VIETNAM, ZIMBABWE.

- Note : to be accepted, students of non-French-speaking countries must provide certificates justifying their level of English and French. You must apply via CampusFrance. You must register online via the EQUIV application

And after

Further studies

- Doctorate in Electrochemistry
- Doctorate in Process engineering
- Doctorate in Materials science and engineering

Doctoral school of Engineering - materials, mechanics, energy, environment, processes, production (IMEP2), specialisation in materials, mechanics, civil engineering, electrochemistry (2MGE) or fluid mechanics, energy, erocesses (MEP).

Sector(s)

- Academic research and teaching
- R&D engineer in a company
- Technical manager
- Management

Useful info

Contacts

Program director

Daniel Bellet

✉ Daniel.Bellet@grenoble-inp.fr

Course location(s) - City

📍 Grenoble

Campus

🏠 Grenoble - University campus

Program

Specifics of the program

Awaiting update