The AMIR Master program focuses on the raw material value chain, with particular emphasis on recycling. The two main objectives are:

› Educate students to become highly-skilled European professionals with expertise in various types of materials. This expertise will enable them to develop, at a large and ambitious scale, new methods for material recycling.

In addition, the AMIR program includes classes on transferable skills such as innovation, ethics, intellectual property, life cycle assessment, sustainability and advanced research strategies.

› Develop a deep entrepreneurship mind-set with the help and expertise of associated businesses, incubators and innovation services as well as a large panel of industries.

Program factsheet

CONSORTIUM
Six universities:
› France: University of Bordeaux
› Belgium: University of Liege
› Germany: Technical University of Darmstadt
› Spain: Technical University of Madrid
› Portugal: NOVA University of Lisbon
› Hungary: University of Miskolc

Five research and technological organizations:
› France: CEA, the French Alternative Energies and Atomic Energy Commission
› Belgium: CRM Group (Centre de Recherches Métallurgiques)
› Germany: Fraunhofer Society
› Spain: Spanish National Research Council (CSIC); Tecnalia

Three large industries:
› ArcelorMittal, Arkema, Veolia (VERI)

LEVEL
Master of Science in Chemistry (specialization in Advanced Materials Innovative Recycling).

ADMISSION REQUIREMENTS
Candidates must fulfill the following requirements:
› Hold a Bachelor degree in Engineering and Environmental Sciences with advanced knowledge in Chemistry (minimum 3 years of study / 180 ECTS), or a Bachelor degree in Chemistry, Physical-Chemistry, Materials (or Matter) Sciences.

LANGUAGE REQUIREMENTS
This Master program is taught entirely in English. Students must possess a good level (level B2) of English.

PROGRAM DURATION
2 years (120 ECTS).

FEES AND SCHOLARSHIPS
› 2,000€ per year for EU students, 4,000€ per year for non-EU students.

Scholarships:
› EIT label scholarships of 9,000€ in total for all selected students as well as EIT travel and installation grants of up to 4,500€.
› University of Bordeaux grants for three students based on M1 results (750€ per month, during their M2 and 750€ travel bonus for non-EU students).

Note: incentives are proposed to industries who offer high-quality internships (Master thesis). This represents fellowships of at least 500€ per month, per student.

Program outline

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› Develop a deep entrepreneurship mind-set with the help and expertise of associated businesses, incubators and innovation services as well as a large panel of industries.

Mobility
Students choose to spend their first year at either the University of Bordeaux or NOVA University of Lisbon, and then choose their second year destination at the beginning of their 2nd semester.

› Consult the website: www.amir-master.com/program for details about the course content at each consortium member.

College of Science and Technology
Program structure

The first year of the Master program takes place at either the University of Bordeaux or NOVA University of Lisbon and includes a module focused on entrepreneurship.

Students learn about general and technical aspects of the raw material value chain (general chemistry, material science, lifecycle of materials) as well as about the main outcomes of the European Institute of Innovation and Technology (EIT): sustainability, intellectual transformation, value judgments (ethical, scientific and sustainability challenges), creativity, innovation, leadership and entrepreneurship.

Year 1

Advanced materials & recycling, transversal knowledge (60 ECTS)

- Bordeaux
- Lisbon

Year 2

Disciplinary knowledge: engineering and innovation (60 ECTS)

Specializations:
- Darmstadt: material design for recycling
- Liege: metal recycling
- Madrid: mineral recycling
- Miskolc: polymer recycling

Bordeaux: intellectual transforming skills for innovation

Industry internship (30 ECTS)

Arkema, Arcelor-Mittal, Veolia or research & technology organizations: CSIC, BRGM, CEA, CRM, Fraunhofer, etc.

And after?

- The AMIR program benefits from a strong academic, research and industrial network.
- After graduation, students are fully prepared to integrate the working environment as professionals in the recycling sector (process optimization, materials design, plant administration, project management, etc.) whether it be in the industrial field or governmental organizations. Possible sectors include: information and communication technologies, building construction, energy, machinery tools, mobility.
- Graduates also obtain the necessary skills and knowledge to set up their own company or work in sales and marketing.
- Finally, further doctoral studies are another possibility and students may apply for Ph.D. programs in Europe, including those offered in the framework of the European Multifunctional Materials Institute (EMMI: www.emmi-materials.eu).

How to apply?

The application procedure may be consulted on the website: www.amir-master.com

Strengths

AMIR graduates are international entrepreneurs and innovators, able to work anywhere in Europe and beyond.

High-level education and research environment.

Practical insights with advanced research labs.

High-quality internships.

Mandatory international and intersectoral mobility.

Supported by the European Institute of Innovation & Technology (EIT) and the International Master program of the Bordeaux “Initiative of Excellence” (IdEx).

Contact

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www.amir-master.com

www.u-bordeaux.com

TOMORROW’S SUCCESS STARTS TODAY