Master

EUREkA

Program Outline

The EUREkA *Graduate Program*, which is fully customizable, focuses on general scientific objectives that favor an interdisciplinary and rational research approach.
These scientific objectives are based on the function-through-structure materials design, which includes: (i) the control of complexity, (ii) the rational design and (iii) the instrumental control over (nano) structures of tailored-made materials.
This approach is implemented via three specific educational and research axes which are:

- Advanced Functional Polymer Materials
- Advanced Functional Inorganic Materials
- Advanced Functional Hybrid & Colloidal Materials

Admission Requirements

Candidates must hold a Bachelor degree with honors or 4-year/240 ECTS equivalent in chemistry and/or physics with a focus on materials science.

Academic Cooperation

Collaboration with over ten international universities :

- Brazil: Universidade Federal do ABC
- Lebanon: Lebanese University
- Japan: University of Kyoto, University of Tsukuba
- Spain: University of the Basque Country
- Switzerland: École polytechnique fédérale de Lausanne
- USA: Duke University, University of California - Los Angeles, University of Cincinnati, University of Massachussetts, University of Nebraska
- Etc.

Program duration

2 years (132 ECTS).

Language Requirements

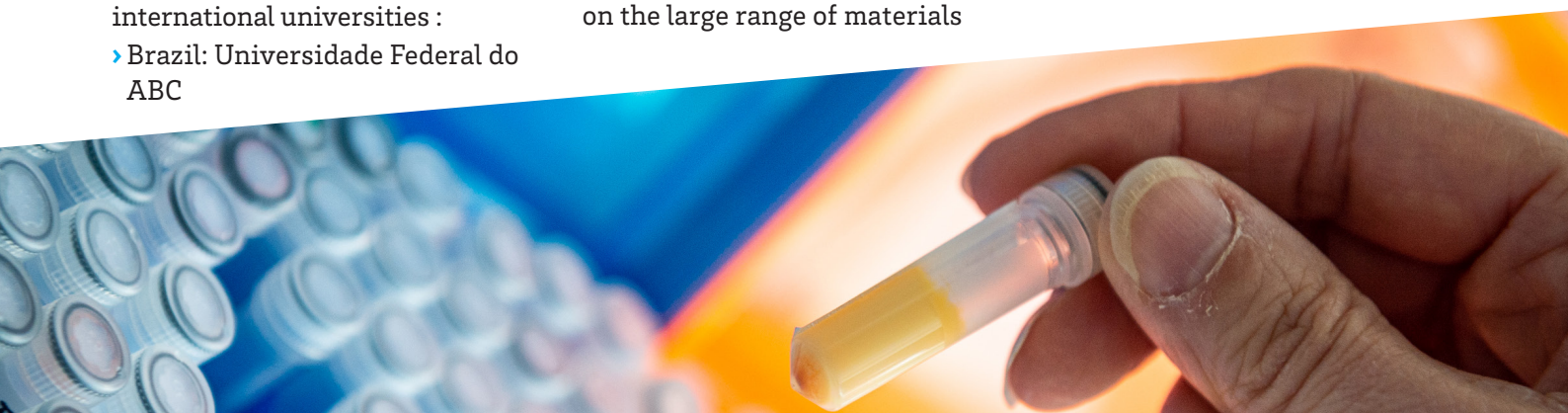
Program taught entirely in English, a B2 level according to the CEFR is required.

Fees and scholarships

- Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).
- Scholarships may be granted to selected applicants on demand.

Strengths

- Students develop skills based on the large range of materials topics studied in the University of Bordeaux campus laboratory: inorganic materials, colloids and polymers.
- Students work within campus laboratories for two internships during the 2 years (4 and 6 months full time). In addition to the campus laboratories, other academic (collaborations with more than 10 international universities) and industrial (more than 15 partners) laboratories are proposed.
- The customizable program favors optimum personal development for each student.
- A mentoring procedure provides strong academic and professional guidance over the 2 years.
- Students participate in a summer school where they may meet professors and students from abroad.
- Each semester, some courses (15 to 30%) are taught by international professors.
- The University of Bordeaux has been identified as a Campus of Excellence within the field of Materials.



Year 1

Semester 1

- Chemical bonding (6 ECTS)
- Elaboration of materials from inorganic to polymers (6 ECTS)
- Chemistry of materials taught by international visiting professors (6 ECTS)
- Project with an entrepreneurship angle in a UBx laboratory (6 ECTS)
- Two optional courses must also be chosen. (6 ECTS each)

Semester 2

- Project: from materials to devices (3 ECTS)
- Industrial seminars (3 ECTS)
- Internship of 3 to 4 months (3 ECTS)
- Batteries and alternative energies taught by international visiting professors (6 ECTS)
- Additives manufacturing (from polymers to ceramics) taught by international visiting professors (6 ECTS)
- Two optional courses must also be chosen (6 ECTS each)

Year 2

Semester 1

- Customized program with three tracks (Inorganic, Colloids or Polymers)
- Two courses to be chosen from the three below (all taught by visiting professors)
- Graduate Program's Polymers (Bioinspired Polymer) (6 ECTS)
- Graduate program's Hybrids & Colloids (6 ECTS)
- Graduate program's Inorganic (6 ECTS)
- A research project (1st chapter of thesis) must also be completed (3 ECTS)
- Three to four optional courses must also be chosen (6 ECTS each)

Semester 2

- Internship for 6 months (30 ECTS)
- One course may be taken (taken from Semester 2 of year 1 or from the doctoral school offer)

How to apply?

Candidates must send a CV, cover letter and transcript of previous grades.

And after?

The ultimate goal of the EUREkA Graduate Program is to educate top-level, next-generational academic and industrial leaders who will bring a strong innovational approach to the fields of Functional Polymers, Inorganic and Hybrid & Colloidal materials.
Graduates may pursue an academic career as PhD students or an industrial career as engineers.

Website

Contact

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FRANCE 2030

Graduate Research School

université de BORDEAUX