

## **Contacts**

### UNIVERSITÉ DE PAU ET DES PAYS DE L'ADOUR

#### **Collège STEE** Sciences et techniques pour l'énergie et l'environnement

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m-green-eacm

# Head of the graduate program

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#### International Welcome Desk http://univ-pau.fr/en/welcome-desk

## Access to graduate program

### Requirement

• The GREEN Graduate school is open to high-potential students from a variety of scientific backgrounds who have completed their undergraduate training with the highest honors (special fees could be offered to promising candidates) and are highly motivated for a dedicated research-focused PhD-Track.

- Applicants must hold a Bachelor in chemistry, biology and/or environmental sciences.
- Applicants must be fluent in English, both in writing and speaking.
  A non-native English candidate must pass an internationally recognised English test or an English interview with our lecturers.
   Minimum required score CECRL B2 level in English.

Apply

• Application on Mobility on line: https://ri.univ-pau.fr/m-programs

## Assets

- Scholarships
- Training in English
- More than one third of ECTS acquired in research
- Integrating research laboratories right from the 1<sup>st</sup> semester of M1
- Student-centered learning
- Multidisciplinarity (Chemistry, Physics and Biology)
- Post-graduate studies with a PhD thesis if the criteria of excellence are recognized
- Tutorship and tailor-made programs: each student will have a tutor with whom s.he will build her/his curriculum related to his aspirations and research interest. The tutor will also help the student define a series of face-to-face or e-learning courses (up to 20 or 25% for the STEE GP) that s/he can easily keep up with.

# Graduate program EACM

# GRADUATE SCHOOL GREEN Environmental Analytical Chemistry and Microbiology





## **Presentation**

Graduate program GREEN is a 5-year integrated Master's/PhD program of excellence linked to the research fields of Energy and the Environment with research-intensive training in multiple fields.

The GREEN graduate school (GRaduate school for Energetic and Environmental iNnovation) aims to train tomorrow's research managers, for them to be enlightened about the challenges of energy and the environment, capable of understanding their complexity and proposing innovative solutions to face the challenges of transitions.

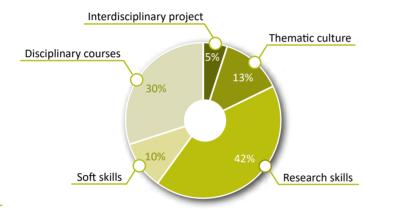
# Research-based approach

The program is carried out in close collaboration with the IPREM -Institute of Analytical Sciences and Physical Chemistry for the Environment and Materials.

## Graduate program

Interdisciplinarity and Research immersion in laboratories

In order to promote transversal and interdisciplinary activities, all the Graduate Programs proposed by GREEN are identically structured. In addition to the research training which represents 40% of a Master's credits, the courses offered in each GP are a combination of common thematic culture courses in the field of Energy and Environment (Sustainability Science, Resilience Alliance, Ecological Economics and Political Ecology, Health & Ecotoxicology, Energy Law & Policy.....) and basic soft skills completed by fundamental and specialized disciplinary courses to fit with the research or topic interest of the students.



#### Training by project

The research-based training program of our GREEN project follows the active educational approach of "student-based learning". The aim is to guide our students and help them structure their research and innovation projects, while giving them a great deal of autonomy.

In the second year, there is therefore a significant reduction in the number of faceto-face courses in favour of project-based learning, in order to put students in a professional situation so that they can experiment group work and project management. This framework encourages a strong interaction between students, lecturers, and researchers to ensure an easier integration into the host research laboratories. The interdisciplinary project proposed in the third semester should give students from all the graduate programs an opportunity to produce joint, multidisciplinary work.



## **Graduate program EACM** Environmental Analytical Chemistry and Microbiology

The aim of the proposed graduate research program is to form experts with up to date knowledge of advanced analytical chemistry, physical chemistry, molecular biology and environmental microbiology to elucidate the behavior and fate of contaminants from pollution sources to living organisms, to assess their impacts on ecosystem structure and functioning, and to implement solutions to maintain ecosystems health.

Several key challenges are addressed in this graduate program such as:

- the promotion of advanced knowledge on isotopes, inorganics, radionuclides, associated bioinorganic structures, including nanoparticles/nanoplastics in different environmental compartments and their biological effects (ecotoxicology);
- the implementation of physico-chemical and microbiological processes for remediation strategies;
- the assessment of the contaminant effects on micro-organisms at several levels of the biological organization (from molecules to communities).

These combined approaches provide a unique set of skills to allow the development of eco-concepts and eco-technologies for sustainable development.

Fields

Research

R&D structures

## **Opportunities**

#### Sector

Environment
 Chemical industries

Biotechnology

- Agribusiness
- Analytical chemistry Life sciences

- Positions
- Academic positions
- Researchers (public institutes or private companies)
- Research and Innovation Engineers