



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 (Science or Engineering) in Mathematics or equivalent. Strong eager to research is mandatory.
- Applicants must be comfortable in English, both in writing and speaking. A non-native English candidate must pass an internationally recognized English test or an English interview with our lecturers. Minimum required score CECRL B1 level in English.

Apply

- Application on Mobility online: <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 1st semester of M1
- Student-centered learning
- Multidisciplinarity
- 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.



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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<https://formation.univ-pau.fr/m-green-m2a2e>

Head of the graduate program

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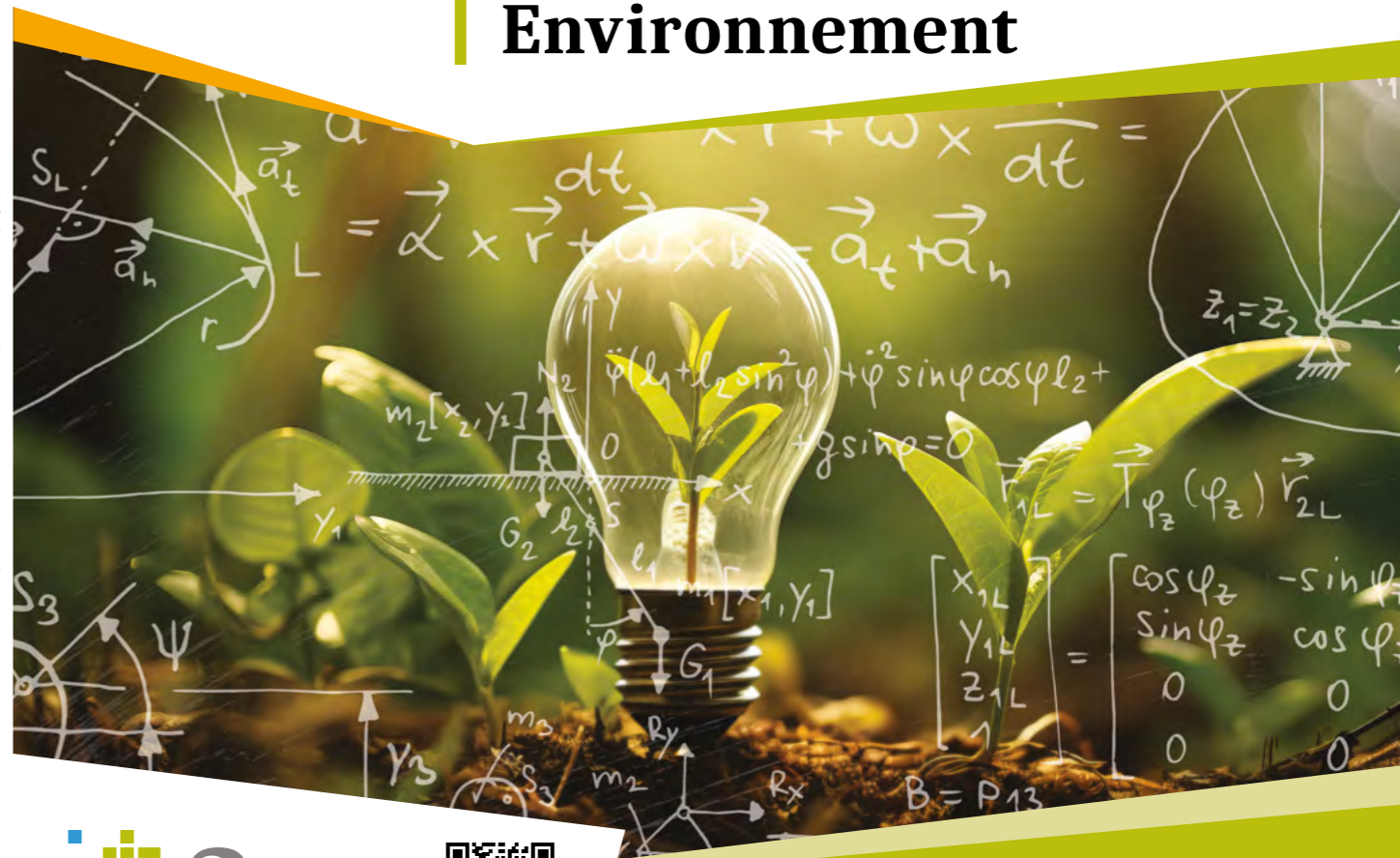
International Welcome Desk

<http://univ-pau.fr/en/welcome-desk>

GRADUATE SCHOOL GREEN

Graduate program M2A2E

Mathematics, Modeling and Applications to energy and Environnement



Conception : Direction de la communication - Impression : Centre de reprographie - UPPA - Décembre 2023



<https://formation.univ-pau.fr/m-green-m2a2e>

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.

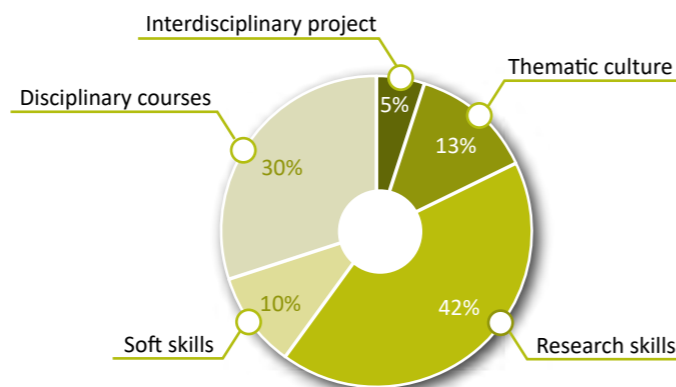
Research-based approach

The program is carried out in close collaboration with the LMAP - Laboratory of Mathematics and its Applications of PAU

Graduate program

Interdisciplinarity and Research immersion in laboratories

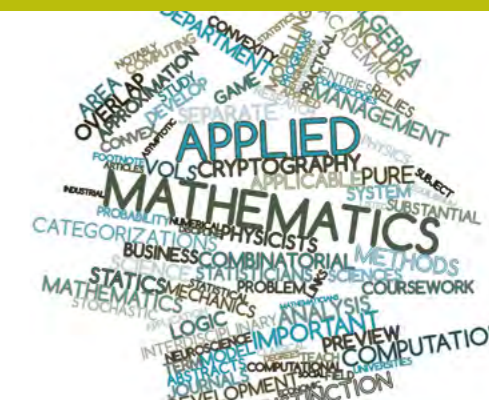
In order to promote transversal and interdisciplinary activities, all the Graduate Programs proposed by GREEN are identically structured. In addition to the research training which represents 40% of a Master's credits, the courses offered in each GP are a combination of common thematic culture courses 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 face-to-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 M2A2E - Mathematics, Modeling and Applications to energy and Environment

The aim of the proposed graduate school research program is to form experts with up-to-date knowledge of advanced skills in Applied Mathematics, statistical and machine learning methods and Scientific Computing to elaborate, to analyze and simulate mathematical models arising from issues and predicted impacts in energy and environment.

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

- Elaboration of complex and accurate mathematical models arising in energy and environment
- Optimization, combination and implementation of advanced simulation methods associated to computer tools

This Graduate program degree offers multidisciplinary key courses to achieve an advanced specialist level in all areas involving mathematical modeling (deterministic and stochastic) and numerical simulation. It is suited for students planning both an academic or an industrial career and provides the theoretical basis and the practical expertise required to pursue in academic research or R&D structures

Opportunities

Sector

- Industry
- Academic

Fields

- Research
- R&D structures

Positions

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