UNIVERSITÉ DE ROUEN NORMANDIE

Normandie Université

DIPLÔME NATIONAL DE MASTER CONTRÔLÉ PAR L'ÉTAT

MASTER

ENVIRONMENTAL MANAGEMENT

Course
Management of Biodiversity in Terrestrial Ecosystems

Campus Mont-Saint-Aignan

sciences-techniques.univ-rouen.fr

UFR Sciences et Techniques

CONDITIONS FOR ADMISSIBILITY

Master 1 is accessible to students with a Bachelor degree in Ecology and Organisms Biology, and potentially to those with a Bachelor degree in Science and Technique for the Environment, an Engineer degree or an equivalent foreign degree.

Master 2 Biodiv is also open to students in continuing education, with possible accreditation of prior experiential learning. Applications by students who validated their Master 1 in another university are also suitable.

In any case, all applications are examined by the pedagogical commission for admission.

Educate Environmental engineers and Ph.D. (after a doctorate) specialized in management and conservation of the diversity and functionning of terrestrial ecosystems

TRAINING

Master Biodiv provides a pluridisciplinary education in environmental sciences by teaching the students thorough fundamental knowledge, methods and technique for :

- Biodiversity, functionning and dynamics of terrestrial ecosystems
- Methods for acquiring and analysing environmental data (GIS, statistics, data bases, water chemical analyses, …)
- Environmental management (waste management, soils management and conservation, ecological restoration, environmental management, risk policies,…)

TEACHING ORGANISATION

Master Biodiv relies on a teaching team of academic teachers-researchers and external contributors.

The course is based on a high amount of field trips and professional experience : 2 internships, 5 weeks of field trip (Normandie, Limousin), a collaboration with regional authority as project managers in Master 1. Internships in firms, authorities or laboratories are a crucial aspect of the course, where the students can build and refine their professional objectives.

During the training, supervised projects (GIS project, bibliographical reviews, integrated projects from field sampling to lab and data analyses) aim at developping students' skills and autonomy for project management in their upcoming careers.

Master Biodiv also offers opportunities for international exchange with academic partners of Université de Rouen (for instance, Erasmus partnerships).

COURSE PROGRAM

M1

1st semester

- Geographic Information Systems and Remote sensing (50 h)
- Data analysis for Environmental science (60 h)
- Soil Ecology (60 h)
- Above-belowground Interactions (60 h)
- *In situ* Methods for Ecology (35 h)
- One choice amongst (35 h)
  .. Analytical Chemistry for the Environment
  .. Behavioural Ecology
  .. Global change and Anthropic impacts
  .. Organic Matter in the environment

2nd semester

- English, Communication and Business knowledge (50 h)
- Environmental Law and Economics (40 h)
- Biogeography and Population genetics (65 h)
- Soil uses, Management and Conservation (34 h)
- Internship (at least 8 weeks)

M2

3rd semester

- Biology for Ecosystem Conservation: Management of confined populations (64 h)
- Natural environments: field trip (64 h)
- Ecological Restoration of Ecosystems (24 h)
- Communication, Languages and Business knowledge (35 h)
- Data bases and Geographic Information Systems (43 h)

Semestre 4

Professional Master:

- Biology for Ecosystem Conservation: Management of natural populations (35 h)
- Internship in firm or regional authority (16 to 24 weeks)

Master for Research:

- Internship in research laboratory (16 to 24 weeks)

CAREER POTENTIALS

- Project manager for:
  - Management of fragile natural ecosystems
  - Management of populations ex situ
  - Natural heritage
  - Environmental education
  - Geographic Information Systems (GIS)
- Environmental Engineer for:
  - Impact assessment
  - Ecological restoration
  - Environmental education
  - Geographic Information Systems (GIS)
- Executive manager for:
  - Environmental sections in regional authority
  - Regional parks and natural reserves
- Doctorate: in a research laboratory only, or in partnership with a private company (CIFRE fundings)

Potential employers:

- Regional parks, natural reserves, ONCFS, hunting federation
- Conservatories for natural areas/for coastal areas
- Regional authorities (Agglomeration, Departments)
- Environmental consulting firms
- Chamber of agriculture, forestry offices (ONF, CRPF)

EDUCATION THROUGH RESEARCH

Master education relies on the skills of research team ECODIV – EA 1293 (lab for Study and Comprehension of Biodiversity).

This laboratory offers internships for the initiation of Master 1 and Master 2 students to academic research.

Students with M.Sc. degree from Master Biodiv course can apply for doctorate studies related to ECODIV research thematics.

ADVISORY BOARD

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