

**University of Oum El Bouaghi**  
**Faculty of Exact and Life Sciences**

**Department of Natural and Life Sciences**

Program name: Master's degree in: **Biodiversity and Environment**

**Level: Master**

**Domain: Natural and Life Sciences**

**Field: Ecology and Environment**

**Specialty: Biodiversity and Environment**

### **1. Program Description:**

The "**Biodiversity and Environment**" specialty offers students a multidisciplinary training at a very appreciable level in this field, clearly oriented towards the world of research; it aims to acquire a very good knowledge of the ecology, evolution and functioning of living organisms in interaction with their environment from the individual scale to that of the ecosystem or the biosphere. A societal dimension is also addressed, through the human-nature interface, planning and territorial governance.

### **2. Entry Requirements**

It is possible to include training in competitive examinations for secondary school teachers or engineering schools in the fields of biology, agronomy, forestry or the environment. Employability niches are possible at both levels:

Regional level: Forest conservation, Department of the environment of Oum El Bouaghi, National office of dams.

National level: Universities and research centers, National Center for Biodiversity Research and Development, Ministries of the Environment and Agriculture, General Directorate of Forests, etc.

### **3. Program Units and modules**

#### **Semester 1**

- General and organic chemistry
- Cellular Biology
- Mathematics Statistics Computer Science

- Communication and Expression Techniques 1 (in French)
- Geology
- Universal History of Biological Sciences

### **Semester 2**

- Thermodynamics and chemistry of solutions
- Plant's biology
- Animal Biology
- Physical
- Communication and Expression Techniques 2
- Work methods

### **Semester 3**

- Zoology
- Environment
- Sustainable development
- Genetic
- Communication and Expression Techniques
- Work methods
- Biophysics

### **Semester 4**

- Botanical
- Microbiology
- Study methods and inventory of fauna and flora
- General Ecology
- Biostatistics

## Master Semester 1

Fundamental teaching units

### **UEF 1.**

**Module 1:** Genetic bases of biodiversity

**Module 2:** Ecosystem dynamics

### **UEF2.**

**Module 1:** Soil Biology

**Module 2:** Functional Ecology

### **UEM**

**Module 1:** GIS and remote sensing

**Module 2:** Sampling strategy and stand study methods

### **UEM**

**Module 1:** Ecotoxicology

### **UET**

**Module 1:** Communication

## Semester 2

### **UEF 1.**

**Module 1:** Biodiversity of limnic and marine environments

**Module 2:** Biodiversity and sustainable development

### **UEF 2.**

**Module 1:** Bioindicators, Bioaccumulators and Biomarkers

**Module 2:** Exchanges and global cycles

### **UEM**

**Module 1:** Statistical analysis techniques and data processing

**Module 2:** Physico-chemical and biological analysis methods

## **UED**

**Module 1:** Economic impact of environmental problems

**Module 2:** Scientific English

## **UET**

**Module 1:** Legislation

## **Semester 3**

### **UEF 1**

**Module 1:** Biodiversity dynamics and conservation biology

**Module 2:** Global changes and natural disasters

### **UEF 2**

**Module 1 :** Biologie évolutive et biogéographie

**Module 2 :** Biologie de la Conservation et Restauration

### **UEM**

**Module 1:** Geomatics applied to the environment

**Module 2 :** Laboratory Technique

## **UED**

**Module 1:** Organization and promotion of scientific research

**Module 2 :** Politique et Environnement

## **UET**

**Module 1 :** Entrepreneurship and Project Management

### **4. Others**

It is possible to incorporate formations aux concours d'enseignants du second degré or ecoles d'ingénieurs in les domaines de la biologie, de l'agronomie, de la foresterie or de l'environnement. Des creneaux d'employability sont possibles aux deux échelles:

Régional rgion: Conservations des forêts, Direction de l'environnement de Oum El Bouaghi, Office national des barrages.

Niveau national: Universities and centers of recherche, National Center of recherche and development of Biodiversity, Ministries of environment and agriculture, General Direction of forets...

