

# **Hassiba Benbouali University of Chlef (UHBC)**

## **Faculty of Technology**

### **Department of Process Engineering**

#### **Master Environmental Process Engineering**

Explore the programs and courses offered by Environmental Process Engineering

##### **Program Overview:**

The Master's program in Environmental Process Engineering combines theoretical courses, directed studies, and practical work to train specialists in pollutant treatment, waste management, and the valorization of natural resources. The curriculum covers physico-chemical and biological pollution control processes, sustainable energy systems engineering, and industrial eco-design. The directed studies focus on deepening the modeling and optimization of environmental processes using specialized software. Practical work includes laboratory experiments on water, soil, and gas effluent treatment, as well as the performance analysis of green technologies. Applied projects and internships in industry complement the training, preparing students for the challenges of environmental engineering and the ecological transition.

**Teaching Language:** French/English

##### **Curriculum Highlights:**

###### **Core Courses:**

Water Chemistry

Air Pollution

Heat Exchangers

Unit Operations Fluid-Fluid (extraction, distillation, absorption, and stripping)

Solid Waste Management and Treatment

Potable Water Production

Physico-Chemical Wastewater Treatment

Adsorption and Membrane Separation Processes

**Advanced Topics:**

Advanced topics include the modeling and simulation of environmental processes to optimize the treatment of effluents and industrial emissions, advanced pollution control technologies like advanced oxidation and bioremediation, as well as renewable energy engineering to promote energy-efficient processes. The program also covers life cycle analysis of processes, sustainable management of natural resources, and the application of international environmental standards. With this specialization, graduates are prepared to design and implement industrial solutions that are environmentally friendly and comply with sustainable development requirements.

**Admissions Information:**

The program is particularly intended for holders of a license degree in Process Engineering.