

# HYDRAULIQUE A SURFACE LIBRE



ECTS  
5 credits



Component  
École Nationale  
Supérieure  
d'Électrotechnique  
d'Électronique

In brief

> **Code:** N8EM03

## Presentation

### Objectives

This UE addresses all the notions of hydrodynamics in environment necessary to a hydraulic engineer:

- the theoretical bases are given in the course of Free Surface Hydraulics,
- the 1D and 2D modeling project allows students to familiarize themselves with standard 1D and 2D free-surface flow simulation software in practical study-office type cases,
- numerical methods for free-surface flows make the link between theory and modeling by emphasizing the good conditions of use of software,
- the experimental project proposes direct applications of theoretical and numerical bases,
- the Canal Control and Irrigation course applies all of these concepts to the operational management of irrigation canals.

### List of courses

	Nature	CM	TD	TP	Crédits
Hydraulique à Surface Libre	Matière				