

Field of Study 3 - Hydraulic Engineering

Master of Science in Environmental Engineering

A specialization in this FoS provides students with the competence of modelling, managing and influencing flows and sedimentation processes in rivers and open channels. In addition, students are familiar with the planning and deployment of dams and large-scale reservoirs, construction and utilization of hydropower plants, and flood protection measures. The students are able of ensuring the function of natural river ecosystems in co-existence with human interventions. A special focus of this FoS is on the assessment of impacts of impoundments and hydropower stations on fish population and appropriate mitigation strategies.

Required Modules

NN Water Resources and Hydro Power

NN Hydraulic Engineering and Hydromorphology

Elective Modules

BV460014 Environmental Hydrodynamic Modelling

BGU46027 Rapidly Varying Flows in Hydraulic Engineering

BGU46020 Project Work in Hydraulic Engineering and Water Resources Management

BGU46026 Alpine Hazards

NN Ocean and Wind Energy I+II

BV460012 Rivers as an ecosystem

Pending module codes will be updated before the beginning of the semester.