

Field of Study 8 - Environmental Hazards and Risk

Master of Science in Environmental Engineering

Students of this FoS acquire competences to analyse, assess and prevent environmental hazards and knowledge in risk assessment. They are familiar with dynamic changes in the area of water, soil and climate including human activities in order to develop strategies to minimize impacts from human-made and natural hazards. A special focus lies on the topics of Flood Risk Management as well as Landslides and Alpine Hazards. The students understand and analyse the entire flood risk cycle and the interaction of soil, water and rock mechanics including risk assessment, risk analysis, disaster mitigation, preparedness and disaster response.

Required Modules

- BGU46026 Alpine Hazards
- BV600001 Risk Analysis

Elective Modules

- BGU54009 Flood Risk and Flood Management
- BV460014 Environmental Hydrodynamic Modelling
- BGU67001 Landslides
- BGU60013 Risk Assessment
- BV040053 Computational Fluid Dynamics
- BV170004 River Engineering and Hydromorphology
- NN System Reliability
- BV600007 Computational Methods in Stochastic Dynamics
- BV180004 Modelling of Water Quality in Aquatic System
- BGU54017 Environmental Remediation Strategies
- BGU54016 Process based modelling of mesoscale pre-alpine catchments

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