1.Introduction to water management
Objectives: Introduction to the basic principles of water management and their importance at national and international level.
Contents: Historical development of water management, concepts and methods of water management, current challenges, and trends.
2. National water management and water management.
Objectives: Students understand the specific aspects and challenges of water management at national level. Students understand the basics of water management and its importance for the protection and use of water resources.
Contents: Historical overview, legal foundations, responsibilities and organisational structures, main actors and stakeholders. Water law and legislation, water supply and use, water infrastructure, water body types, ecological and hydrological aspects, integrated river basin management, water protection and rehabilitation.
3. International water management
Objectives: Students will recognise the global challenges and approaches to solutions in the field of water management.
Contents: Transnational waters, international water agreements and conventions, transboundary water cooperation and conflicts.
4. Water framework directive and water policy
Objectives: Understanding of the European Water Framework Directive and other relevant water policies.
Contents: Basics and objectives of the Water Framework Directive, implementation in the Member States, water policy in other international contexts.
5. Sustainable water management
Objectives: Recognise the key aspects of drinking water supply and sanitation, understand the principles and practices of sustainable water management.
Contents: Sustainable water abstraction, water storage, water use efficiency, integrated water resource management. Wastewater collection, treatment and disposal, technological and organisational challenges.
6.Water management in change and future challenges
Objectives: Students identify trends and future challenges in water management especially in the focus of climate change and the development of adaptation strategies.
Contents: Climate-related changes in water resource disposition, technology innovations, sustainability goals, water security, adaptation, and resilience in water management.
7. External lectures
Objectives: Students gain insights into current practical examples and research topics by external experts.
Contents: Lectures by external experts on relevant topics.
8.Term paper and presentation
Objectives: Students develop presentation skills and research skills through their own presentations.
Contents: Each student prepares a paper on a water technology project from his/her home country and gives it in a seminar.
9. Seminar
Objectives: Students will learn various facilitation techniques and their application to scientific topics
Contents: Application of facilitation techniques
10. Excursion: application in practice
Objectives: Students experience practical applications of national water management.
Contents: Visit to water management facilities, meeting with experts, discussion of current projects and challenges on site.