
Berufsbild für M.Sc. BI-CE. „Ingenieur:in der Fachrichtung Wasserbau“ (“Engineer in the Field of Hydraulic Engineering“)

1.1. Description

As an engineer in the field of hydraulic engineering, you will be responsible for the planning, implementation and monitoring of hydraulic engineering projects. In plant engineering, you will deal with the conception, planning, dimensioning and construction of plants such as dams, locks and power plants. You regulate plant operation and plan the maintenance and dismantling of these plants. Environmental engineering is the second area of responsibility for a hydraulic engineer. As part of renaturation projects, you will deal with the morphodynamics and hydromorphology of rivers as well as watercourse and floodplain development. In addition, you will plan constructive and conceptual-organizational measures for flood protection. In terms of river continuity, you will design upstream and downstream fishways. Potential employers include engineering firms and the construction industry, as well as authorities (local, state and federal) and state and federal institutions. Career prospects can also be found in research and teaching at colleges and universities.

1.2. Module Recommendation

Basic research modules totalling 36 CP (12 CP per research subject)

Below you will find a selection of modules with a total of 6 CP for the basic research modules, adapted to the job profile "Engineer in the Field of Hydraulic Engineering". Please note that a total of 36 CP (12 CP per research subject) must be earned in the Subject-related compulsory elective area.

Research subject „Wasserbau“

- Wasserbau II (Hydromorphologie, Hochwasserschutz und Wasserkraftnutzung) (13-L2-M001/3), 3 CP
- Numerische Modellierung im Wasserbau (13-L2-M006), 3 CP

Research specialisation modules amounting to 12 CP

Please note that you must submit a total of 12 CP research specialisation modules.

Research subject „Wasserbau “

- Wasserbau III (Verkehrswasserbau, Gewässerentwicklung, Ökohydraulik) (13-L2-M018), 3 CP
- Wasserbau IV (Wasserbauliches Versuchswesen) (13-L2-M003/3), 3 CP

Modules from the subject-related elective area amounting to 36 CP

Below you will find module recommendations totaling 12 CP. Please note that you must complete a total of 36 CP in the subject-related elective area.

- Gewässerdynamik (13-L2-M009), 3 CP
- Grundwassermodellierung (13-L2-M010), 3 CP
- Laborpraktikum im Wasserbaulichen Forschungslabor (13-L2-M016), 6 CP

1.3. Further information on the job profile:

The modules can be chosen in any order. However, it is recommended to choose the modules Wasserbau II to IV in ascending order. In addition, the Bachelor's module „Wasserbau I: Funktion, Bemessung und Einsatz von Wasserbauwerken“ is recommended as a basis.

1.4. Advice on the job profile:

Contact person at the Chair of Hydraulic Engineering

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