

Course Description: Water purification / Water supply

Department	Industrial Engineering
Degree programme	<ul style="list-style-type: none"> • Environmental Technology & Development • Environmental Technology
Module name	Water purification / Water supply
Module number	WI-B.421
Compulsory/ optional/ elective module	Compulsory module
Module coordinator	Prof. Dr. Johanna Hopp
Learning objectives	A goal is the acquisition of basic knowledge over tapwater-processing as well as drinking water supply technologies, further to get practice in scientific working and developing a scientific document.
Module content	<ul style="list-style-type: none"> • natural water cycle, fossil and renewable water resources • drinking water quality standards • basic water technologies • Artificial groundwater recharge, bank filtration • lime carbonic acid balance • Gasexchange,- Desinfection, Softening, Ionexchange • Membrane processes <p>exercise: The theoretical basic knowledge obtained in the lecture will be reinforced by the students activity in the exercise course</p> <p>practical course: efficiency testing of different processing technologies, analytical determination of drinking water parameters, Evaluation, documentation and presentation of results applying methods and standards of scientific documentation</p>
Course type (lecture, exercises, seminar, practical course)	1L - 1E - 0S - 3P
Recommended literature	/1/ Wassertechnologie, Hahn /2/ Wasseraufbereitungstechnik f. Ingenieure, DVGW /3/ Taschenbuch der Umwelttechnik, Schwister /4/ Wasseraufbereitung, Wilhelm /5/ Grundwasserökologie, Griebler
Learning materials	Foil copies for lecture, exercises with solutions, practical course script
Method(s) of instruction/ media being used	Theory transfer is accomplished by lectures. Students deepen their theoretical knowledge obtained in the lecture by treatment of exercises as well as applying water processing methods in the practical course.
Level/ category	Bachelor

Which semester (winter/ summer term)	Summer term
Which semester during the programme	4 th . semester
Requirements for attendance	successful conclusion of the module basics of environmental technologies, chemistry, physics
Assessment (written/ oral test, paper, etc.)	alternative examination: tests
ECTS credits	6
Work load in:	75 h of contact hours 105 h of self-study
Usability of this module	<ul style="list-style-type: none"> • Environmental Technology & Development • Environmental Technology
Frequency of offer	yearly
Duration of module	1 semester
Place/ room	EAH Jena
Time	According to schedule
Language(s)	English