

## Course title: Urban water management

Course basic information			
Academic unit:	Faculty of Civil Engineering		
Course title:	Urban water management		
Level:	BSc		
Course status:	Mandatory		
Year of study:	2 <sup>nd</sup> Year/4 <sup>th</sup> Semester		
Number of classes per week:	2+2		
ECTS Credits:	6 ECTS		
Time/Location:	According to timetable		
Teacher:	Prof.Asoc.Dr. Figene Ahmedi		
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Course description			
Course description:	Through the course the possibilities of urban water management will be presented. Topics elaborated in this course are: Introduction to urban water management; water characteristics and water quality; Drinking water demands; Wastewater sources; Sewerage and wastewater treatment; Planning the urban water infrastructure.		
Course goals:	Course aims to provide global picture on water supply, sewerage and wastewater treatment as topics of urban water management. The focus will be placed on developing the student's ability, to understand how the supply and sewerage systems could be and for what they may serve. Comparing these systems, they may assess the appropriate system to manage urban water.		
Expected learning outcomes:	Upon completion of this course the student will be able to: <ul style="list-style-type: none"> <li>• assess water quality based on its pollutant composition</li> <li>• determine the water quantity for water users, and</li> <li>• planning the urban water supply and sewerage infrastrucutre.</li> </ul>		
Student workload (should be in compliance with student's Learning Outcomes)			
Activity	Hours	Day/Week	Total
Lectures	2	15	30
Theory/Lab work/Exercises	2	15	30
Practical work			
Midterm test preparation	2	15	30
Consultation with the teacher	1	6	6

Field work			
Test, seminar paper	2	2	4
Homework	2	12	24
Self-study time (library or home)			8
Preparation for final exam			10
Assessment time (test, quiz, final exam)			8
Projects, presentations, etc.			
<b>Total</b>			<b>150</b>

<b>Teaching methods:</b>	Through lectures, classroom work in a group of 2-3 students (exercises) and individual homework.
<b>Assessment methods:</b>	Prerequisite: Fluid mechanics Evaluation is done from 0-100 % First midterm: 35 % Second midterm: 35 % Home works: 30 % Regular attendance – decisive in borderline cases Final exam.

<b>Primary literature:</b>	1. Lectures prepared by Prof. asoc. F. Ahmedi
<b>Additional literature:</b>	1. Jahic. M., <i>Urbani Vodovodni Sistemi</i> . Sarajevo, 1988. 2. Metcalf & Eddy, Inc. Wastewater Engineering: Treatment and Reuse. 4th ed, McGraw Hill, Inc., New York, 2003 3. Daka. S., Furnizimi me ujë, 2007 4. Butler. D., Davies. J. Urban Drainage, 2000

<b>Design teaching plan:</b>	
<b>Week</b>	<b>Title of the lecture</b>
Week 1:	Introduction to water resources, water supply and sewerage
Week 2:	Collecting surface and ground water for urban water supply
Week 3:	Evaluation of inhabitants and water demands
Week 4:	Determination of water supply quantity
Week 5:	Water supply scheme: gravitational distribution and via pumps
Week 6:	Water supply system
Week 7:	Design and hydraulics of water supply network
Week 8:	Pumps and reservoirs
Week 9:	Urban sewerage and urbanization
Week 10:	Types of urban sewerage systems
Week 11:	Types of urban sewerage systems (cont.)
Week 12:	Design and hydraulics of sewerage network
Week 13:	Design and hydraulics of sewerage network (cont.)
Week 14:	Wastewater and its treatment

Week 15:	Planning the urban water infrastructure
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**Academic policies and code of conduct**

Regular attendance of lectures and exercises. Silence in teaching. Entrance in class within time.  
Tools used during class must be cleaned and stored away at the end of class.  
Mobile/smart phones, and other electronic devices must be turned off (or on vibrate) and hidden from view during class time.  
Laptop and tablet computers are allowed for quiet use only (if required for use in class); other activities such as checking personal e-mail or browsing the Internet are prohibited.