

Course Unit Descriptor

Study Programme: Master Academic Studies in Environmental Protection - Environmental Protection Analyst			
Course Unit Title: Water Management			
Course Unit Code: IKK-508			
Name of Lecturer(s): Full Professor Milena Bečelić-Tomin			
Type and Level of Studies: Master of Science Degree			
Course Status (compulsory/elective): Elective			
Semester (winter/summer): Summer			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): Face-to-face			
Number of ECTS Allocated: 5			
Prerequisites: None			
Course Aims: Train students on integrated water management on the basis of previous lessons learned about water quality, water monitoring, water pollution control.			
Learning Outcomes: After completing the course, students know how to explain in detail the management of water in the river basin, explain the importance of emission limit values and water standards in pollution control, apply the methodology to determine the status of surface water and groundwater, use cadastre of polluters and plants for purpose of wastewater treatment and management.			
Syllabus: <i>Theory</i> Valuation of water as a resource. Water and sustainable development. Integrated water management: water quality protection, water quality management and control of water pollution. Water allocation. Water quality management in light of the statutory provisions. Emission limits values and water standards. The catchment area as the basic unit for water management. Development plans for river basin management. The methodology for determining the status of surface waters and groundwaters. Protected water areas. Priority pollutants. Application of inventory of pollutants and polluter cadastre and facilities for wastewater treatment in water management. Economic aspects of public participation in water management. <i>Practice</i> Case studies on water resources management: agriculture water use; urban water supply; industrial water use; aquatic ecosystem. Examples of adaptive and integrated management practice of water resources. Application of methodology for determining the pressures and impact on the quality and quantity of water resources on specific examples in the region. Analysis of the application of economic and legal instruments in water management on national level.			
Required Reading: 1. K. L. Pennington and T.V.Cech: Introduction to Water Resources and Environmental Issues, Cambridge University Press, UK, 2010 2. R. Q. Grafton and K. Hussey: Water Resources Planning and Management, Cambridge University Press, UK, 2011.			
Weekly Contact Hours: 4	Lectures: 2	Practical work: 2	
Teaching Methods: Lectures, seminar(s)			
Knowledge Assessment (maximum of 100 points): 100			
Pre-exam obligations	points	Final exam	points
Active class	5	Written exam	40

participation			
Practical work	5	Oral exam	20
Preliminary exam(s)	20		
Seminar(s)	10		