

**Environmental elements protection (30-70cr.):**

<b>Title of the course:</b> <b>Environmental elements protection I. - Water quality protection</b>	<b>NEPTUN-code:</b> RKXKE1ABNE	<b>Weekly teaching hours:</b> <i>lecture+practical work+lab work</i> 1+2+0	<b>Credit: 3</b> <b>Exam type: tm</b>
<b>Course leader:</b> Rita Kendrovics-Boda, Dr.	<b>Position:</b> associate professor	<b>Required preliminary knowledge (with code too):</b> -	
<b>Curriculum:</b>			
<p>Course objective is to provide overall knowledge about topics of water quality protection and water management. Within this scope it deals in details with water circulation in the nature and in the society and with water incidences available for residential utilization. It examines impacts and impurities affecting natural waters of the industrializing world and water quality resulting from that, together with monitoring possibilities. It reviews general questions of water and water management, like basics of water management, fundamentals of water resources management, current and future water demands. It shows different types of water utilization and the return options of used waters to the nature. It presents basic hydrological notions, transmission of impurities in surface and subsurface waters, as well as impacts of oil pollution to water quality and possibilities of environmental <b>clean-up</b>.</p>			
<b>Professional competencies:</b>			
<p>Comprehensive knowledge of the basic features and interrelations of environmental elements and systems, as well as of the environmentally harmful substances affecting them.</p> <p>Knowledge of the main methods to examine the quantity and quality features of environmental elements and systems, their typical measuring instruments and limitations thereof, as well as methods for the evaluation of data measured.</p> <p>Able to perform basic tests of the quantity and quality characteristics of environmental elements and systems by state-of-the-art measuring instruments; to draw up and implement measurement plans; and to evaluate data.</p> <p>Able to solve tasks of water, soil, air, radiation, and noise protection, as well as of waste treatment and processing at proposal level; to participate in preparing decisions; to perform authority audits; and to take part in the operation of these technologies.</p> <p>Able to carry out assignments as environmental officer.</p> <p>Able to carry out management duties subject to sufficient professional experience.</p>			
<b>Literature:</b>			
<p>Dr. Pregun, Csaba: Hydrology, Publication date 2011, Szerzői jog © 2011 Debreceni Egyetem. Agrár- és Gazdálkodástudományok Centruma, in e-learning system</p>			
<p>R.C.Gaur: Basic environmental engineering, New Age International Publishers. 2008 in e-learning system</p>			