

Title of the course: Chemistry II.	NEPTUN-code: RMXCA2KBNE	Weekly teaching hours: <i>l+cw+lb</i> 2+0+2	Credit: 5 Exam type: e
Course leader: Tamás Csiszér Dr.	Position: senior lecturer	Required preliminary knowledge: RMXCA1KBNE	
Curriculum:			
<p>The goal of the subject is the transfer of the basic concepts of organic chemistry required for other professional subjects. During the exercises, the students can acquire basic laboratory knowledge that is essential for the successful completion of other professional subjects.</p> <p>Basic Concepts of Organic Chemistry: The structure and properties of alkanes. Nomenclature. The structure, reactions and properties of open-chain unsaturated hydrocarbons. The structure, reactions and properties of closed-chain saturated and unsaturated hydrocarbons. Production, Physical and Chemical Properties of Halogenated Organic Compounds. The grouping, physical and chemical properties of oxygen-containing organic compounds. The Grouping, Structure and Properties of Nitrogenous Organic Compounds.</p>			
Professional competencies:			
<p>Knowledge of general and specific mathematical, natural and social scientific principles, rules, relations, and procedures as required to pursue activities in the special field of environment protection.</p> <p>Comprehensive knowledge of the basic features and interrelations of environmental elements and systems, as well as of the environmentally harmful substances affecting them. 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 reveal deficiencies in the technologies applied and process risks and to initiate mitigation measures after getting familiarized with the technology concerned.</p>			
Literature:			
1. Darrell Ebbing, Steven D. Gammon: General Chemistry, Cengage Learning, 2015, Cengage Learning, Boston, ISBN-13: 978-1305580343; ISBN-10: 1305580346			
2. John E. McMurry: Organic Chemistry, Edition: 9TH 16, Copyright: 2016, Publisher: Cengage Learning, Published: 2016, ISBN-13: 978-1305080485; ISBN-10: 1305080483			
3. David R. Klein: Organic Chemistry, 2015, Wiley, Edition: 2 nd , ISBN: Main edition: 978-1-118-45228-8; Binder version: 978-1-118-45431-2			