Title	Agrometeorology and Water Management		
Code	3KT23NAK01B		
Prerequisites			
Description	History and present composition of the atmosphere is discussed. The role of solar radiation in atmospheric motions as well as in the conditions of biosphere is presented. A detailed description is provided on the atmospheric part of water cycle, including its close connection to soil conditions and agricultural activity. Climatic zones of the Earth are generally presented. It is discussed, how the anthropogenic activity can influence the chemical composition of the atmosphere and land-use characteristics. Responses of natural systems to environmental changes are demonstrated and discussed. Processes of the hydrology and detailed description of water balance of fields are discussed. Tasks and methods of agricultural water management, including drainage, water storage, irrigation are presented. Calculation methods of water demand for plants and water deficit in soils are presented. During the practical course, a meteorological observatory and a meteorological forecast team are to be visited and agrohydrological and agrometeorological data processing and evaluation are discussed		
Lecturer	Dr. László Bozó, Dr. Katalin Juhos		
Semester	1st, spring	**Contact hours/week**	2+2
Level	BSc	**ECTS**	4
Teaching and Learning Methods:	• 1 day field practice • keeping a self-presentation in the topic "Recent and future environmental challenges in my country" during the term period; written exam during the exam period		
Reading:	• Mészáros E. (1993): Global and Regional Changes in Atmospheric Composition. Lewis Publishers, U.S.A. • FAO (2011): The state of the world's land and water resources for food and agriculture (SOLAW) – Managing systems at risk. Food and Agriculture Organization of the United Nations, Rome and Earthscan, London. http://www.fao.org/docrep/017/i1688e/i1688e.pdf • FAO (1986): Irrigation Water Management: Irrigation Water Needs. Training Manual No 3. Food and Agericulture Organization of the United Nations, Rome http://www.fao.org/docrep/S2022E/s2022e00.htm • FAO (1986): Irrigation Water Management: Methods. Training Manual No5. Food and Agriculture Organization of the United Nations, Rome, http://www.fao.org/docrep/s8684e/s8684e00.htm#Contents • Zsembeli J. and Juhász Cs. (2011): Water management. University of Debrecen, Debrecen. http://www.tankonyvtar.hu/hu/tartalom/tamop425/0032_vizgazdalkodas/ch02.html		

Assessment:	exam