

**University of Szeged  
Foundation Year**

Curriculum (2016-2017)

<b>SUBJECT: BIOLOGY</b>	
<b>2nd semester</b>	
<b>WEEK</b>	<b>CLASS</b>
	(6 hrs/week)
1.	DNA and its role in heredity. The structure and function of DNA. DNA replication, mutation and repair.
2.	From DNA to protein. RNA, transcription. The genetic code. Translation. Protein modifications. Mutations, mutagenesis.
3.	The genetics of viruses and prokaryotes. Structure of the eukaryotic genome.
4.	Regulation of eukaryotic gene expression.
5.	Hormones and homeostasis. The endocrine system.
6.	The immune system.
7.	Consultation, test.
8.	The human reproductive system. Structure and function of neurons. Neuronal communication, synapses, receptors, neurotransmitters. Neuronal signal transduction.
9.	Central and peripheral nervous system. The autonomic nervous system.
10.	The sensory systems: vision, hearing/balance, gustation, olfaction, nociception.
11.	The musculo-skeletal system. Muscle contraction, locomotion.
12.	Gas exchange. The human respiratory system. The circulatory system: heart, blood vessels, blood.
13.	The human gastrointestinal system. Nutrition, digestion, adsorption. Salt and water balance, nitrogen excretion: the kidneys.
14.	Consultation.
15.	Consultation. End-of-semester test.