## BIO344/376-1305

## **Development of the Nervous System**

Date	Title	Lecturer	Content	required knowledge <sup>1)</sup>
18.09.2017	Introduction	ES	Overview/Introduction	Ch. 1,22,23
25.09.2017	Neurogenesis	ES	Neurulation, generation of cells in the NS, patterning	22
02.10.2017	Axon Growth & Survival	ES	Molecular mechanisms of axon growth and neuronal survival	23
09.10.2017	Axon Guidance	ES	How do axons navigate through the preexisting tissue?	23
16.10.2017	Neural Circuits	ES	Integration of basic mechanisms to neural circuit formation and maturation	23
23.10.2017	Cell Migration	DZ	Mechanisms and importance of cell migration in neural development	22, 23
30.10.2017	Synapse Formation	MM	Molecular mechanisms of synapse formation	23
06.11.2017	Synaptic Plasticity and Homeostasis	MM	How are synapses changing during learning and memory?	
			How is synaptic strength maintained?	
13.11.2017	Neural Circuits of Behavior	АН	How can we use a simple NS to study the correlation between structure and function?	1
20.11.2017	Adult neural stem cells	SJ	Contribution of stem cells in the adult NS, therapeutic potential of adult stem cells	25
27.11.2017	Neural Development & Sleep	RH	Importance of sleep during neural development,	
			changes in sleep patterns during brain development	
04.12.2017	Neural Crest Cells	LS	Generation of the PNS, contribution of NC stem cells to neural development and	22, 25
			function	
11.12.2017	Neurodevelopmental Disorders	ES	What are the consequences of aberrant neural development?	
18.12.2017	Neurodevelopmental Disorders	ES		

<sup>1)</sup> Chapters in Purves et al., Neuroscience, 5<sup>th</sup> edition