Course Specifications

General Information

Course name	Neuroscience
Course number	MEDI3330
Faculty	
Department	
Course type	College Needs
Course level	3
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Intended Learning Outcomes

Knowledge and Understanding	* The course provides a platform for continued studies in neuroscience as the participants will acquire an understanding of the basic principles underlying the operation of functional CNS networks. The course is also suitable for students from the fields of chemistry, biology, immunology, pharmacology, psychology, informatics and biotechnology. The participants will also be introduced to a simulation environment for modelling individual neurons and networks of neurons. Following a short introduction of their research activity, top-researchers in neuroscience will be giving the lectures and leading the group discussions. This will provide students with a unique opportunity to get to know and discuss with expert neuroscientists.

Course Contents

1 - this course in neurophysiology covers the basic principles of neuron signalling and interactions that underlie brain function, spanning from the function of individual neurons to the function of neuronal circuits that produce behaviour. Topics to be covered include neuron morphology, basic electrical properties, ion channels, action potential propagation, synaptic physiology, synaptic integration, and neuronal circuit configuration and function.