Liverpool John Moores University

Title:	NEUROBIOLOGY
Status:	Definitive
Code:	**6027NATSCI** (121354)
Version Start Date:	01-08-2019
Owning School/Faculty:	Natural Sciences & Psychology
Teaching School/Faculty:	Natural Sciences & Psychology

Team	Leader
Andrias O'Reilly	Y
Will Swaney	
Sally Williamson	
Susannah Walker	
Francis McGlone	
Catharine Montgomery	
Alan Gunn	

Academic Level:	FHEQ6	**Credit Value:**	24	**Total Delivered Hours:**	52
Total Learning Hours:	240	**Private Study:**	188		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	26
Practical	12
Workshop	12

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	PR	Practical write-up	50	
Exam	Ex	Exam essays	50	2

Aims

This course aims to develop in-depth understanding of how the nervous system is organised and functions at the molecular, cellular and divisional level. The role of genetic factors and drugs, toxins or other pharmacological agents on producing disease or modified neurobiological function will be explored. This course aims to enhance the student learning experience by discussing recent and relevant research undertaken by members of the teaching team.

Learning Outcomes

After completing the module the student should be able to:

1	Assess the functional and organisational interrelatedness of the nervous system at the molecular, cellular and divisional levels
2	Appraise state-of-the-art experimental approaches and techniques used in the study of neurobiology
3	Critically evaluate how the function of a nervous system can be modified pharmacologically

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Coursework: Practical report	1	2	3
Final Exam	1	3	

Outline Syllabus

Electrical signalling in neurons. Role of neurotransmitters and neuromodulators. Structure and function of ion channels and ligand-gated receptors. The generation and propagration of nerve impulses by sensory receptors. Relationship between nerves, the spinal cord and the brain. Neuroanatomy. Pharmacology modulation of the nervous system. Neurological dysfunction and disease.

Learning Activities

This module will be delivered using a combination of lectures, practicals and workshops.

Notes

This course builds on neurobiology-related concepts taught during the L5 'Physiology of Life' or 'Comparative Animal Physiology' modules. The course will provide insight into how molecular, cellular and organ components contribute to form the body's most complex system and how different factors can produce dysregulation of the nervous system.