Liverpool John Moores University

Title: NEURO-ENDOCRINOLOGY
Status: Definitive
Code: **7136NATSCI** (126196)
Version Start Date: 01-08-2021

Owning School/Faculty: Biological and Environmental Sciences
Teaching School/Faculty: Biological and Environmental Sciences

Team	Leader
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Academic Level:	FHEQ7	**Credit Value:**	20	**Total Delivered Hours:**	42
Total Learning Hours:	200	**Private Study:**	158		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	8
Practical	9
Seminar	6
Tutorial	12
Workshop	5

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	PORTFOLIO	Critical evaluation of scientific papers and communication to the general public (3-5 min podcast/video)	60	
Exam	EXAM	Exam	40	2

Aims

To provide an understanding of advanced and cutting edge topics in neuroendocrinology within the context of health and disease of plants, animals and humans.

Learning Outcomes

After completing the module the student should be able to:

1   Scrutinise historic and recent literature relevant to regulatory systems in different organisms (e.g. nervous system in vertebrates and invertebrates, animal and plant hormones, etc.)
2   Critically evaluate current research methods in neuroendocrine sciences
3   Understand and critically assess how the different regulatory systems contribute to the organisms' health status and risk of disease
4   Synthesize and communicate scientific information to the general public in a creative manner, with the use of internet-based communication channels

Learning Outcomes of Assessments

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

PORTFOLIO   1   2   3   4

EXAM   1   2   3

Outline Syllabus

This module focuses on cutting-edge and advanced neuroendocrinology topics, to provide understanding of the regulatory mechanisms that ensure health and how disruptions increase the risk of, or result in disease. Topics include the endocrine control of physiology, neuroendocrinology of reproduction, prenatal programming of health and disease, puberty and pubertal disorders, endocrine disrupting compounds and the developing brain, sexual differentiation, behavioural neuro-endocrinology, neuroendocrinology of metabolism and energy balance, stress, and hormones and affective disorders.

Learning Activities

The module will be delivered primarily using a problem-based learning approach, supported by tutorials and lectures. The students will work in groups to research a series of case studies guiding them through relevant advanced course material. Practical classes will provide opportunities to develop wet lab experience and relevant practical skills. Seminars will offer opportunities for critical evaluation of cutting edge research.

Notes

This module will present cutting-edge research relevant to neuroscience and endocrinology in the context of health and disease, and as such the specific contents will reflect the current trends in the field. Examples of relevant topics are: plant hormones and defence mechanisms; neuroendocrinology of reproduction; sexual differentiation; sex differences in behaviour (including gender roles, gender identity, sexual preference, or nature versus nurture concepts); puberty and pubertal disorders; endocrine disrupting compounds and the developing brain; behavioural neuroendocrinology (male and female reproductive behaviour, parental behaviour, aggression, hormone related social behaviours); neuroendocrinology of metabolism and energy balance; hormones and affective disorders (e.g. premenstrual syndrome, depression, seasonal affective disorder, etc.)