Module Specification

Advanced Neurophysiology

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Contents

Part 1: Information

Module title: Advanced Neurophysiology

Module code: USSYQU-60-3

Level: Level 6

For implementation from: 2026-27

UWE credit rating: 60

ECTS credit rating: 30

College: College of Health, Science & Society

School: CHSS School of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: Neurophysiology 2026-27

Excluded combinations: None

Co-requisites: None

Continuing professional development: Yes

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Advancing neuro-pathophysiology and clinical neurophysiology principles and application.

Pre-requisites: Student must have passed USSYQK-60-2 Neurophysiology before starting this module.

Features: This module is available as CPD.

Educational aims: Interpretation of neurodiagnostic procedures
Application of fundamental neuroscience to diagnosis and treatment of neurophysiological pathologies.
Perform neurodiagnostic procedures using safe effective practices and underpinning theoretical knowledge.

Outline syllabus: Advanced anatomy of the central nervous system
Advanced and anatomy of the peripheral nervous system
Advanced anatomy and physiology of the circulatory system
Ophthalmology introduction
Recording techniques and clinical application of of Evoked potentials (visual, auditory and somatosensory)
Advanced pathophysiology and neurophysiology including genetic, structural, metabolic, infectious and immune disease.
Surgical treatment of epilepsy
Developing treatment of epilepsy
Introduction to nerve conduction studies (entrapment neuropathies (carpal tunnel and ulnar neuropathy)
Developing techniques in neurophysiology

Part 3: Teaching and learning methods

Teaching and learning methods: Material within the module will be presented to the students in the form of lectures, clinical workshops and tutorials. These will be held in block weeks at certain points within semesters 1 and 2. The learning of lecture content will be reinforced by regular tutorials throughout the academic year, and time spent in independent learning by the directed reading of recommended texts and
through the use of technology enhanced learning resources that will be provided online.

A number of relevant clinical sessions will be incorporated during the block teaching, in addition to the work based learning that must be achieved under supervision by a

workplace supervisor. Clinical sessions will drive the acquisition of technical skills at both an individual and group working level.

The remainder of the independent learning time allocated to the module should be spent preparing for assessments and undertaking revision for the exam.

Scheduled learning includes lectures, seminars, tutorials, clinical workshops, external visits, work based learning.

Independent learning includes hours engaged with essential reading, portfolio completion. These sessions constitute an average time per level as indicated in the table below.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Interpret neurodiagnostic procedures.

MO2 Apply fundamental neuroscience to diagnosis and treatment of neurophysiological pathologies.

MO3 Perform neurodiagnostic procedures using safe effective practices and underpinning theoretical knowledge.

Hours to be allocated: 600

Contact hours:

Independent study/self-guided study = 200 hours

Face-to-face learning = 80 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ussyqu-60-3.html

Part 4: Assessment

Assessment strategy: The assessments within this module have been designed to show that the student has developed the required knowledge and clinical skills required to practice as a neurophysiologist. There will be two assessments of this module.

Assessment 1: Set exercise (4 hours):
This set exercise will assess a broad knowledge base, and focus on data analysis and interpretation of clinical scenarios and case based material, in order to assess the understanding and application of specialist clinical knowledge. Students will undertake a range of tasks, some interpretation and analysis based, some practical, some patient facing. This will mimic the clinical setting as far as possible, and skills required for practice, as well assessing application of academic knowledge base in context.

Assessment 2 is an integrated portfolio, which is a professional body requirement and it will provide evidence of all aspects of the course. It will include completion of a range of relevant clinical tasks undertaken in the workplace. DOPS and OCEs allow the student to demonstrate practical skills in their clinical environment. CBDs provide structured teaching and feedback in a particular area of clinical or technical practice by evaluating decision making and the interpretation and application of evidence. They also enable the student to develop presentation skills and discuss the context, professional, ethical and governance framework of their practice, and allow student to discuss why they acted as they did. The focus of the clinical workbook will be to analyse, assess, and interpret clinical data and patient scenarios. This is an essential requirement of a healthcare science practitioner.

The portfolio will be signed off by the work based supervisor, as they are completed. These elements of the portfolio will be signed off and will be assessed as a Pass or Fail only. Two components will be assessed and graded by UWE academic staff, each contributing 35 % to the final grade for the module. The remaining work must be passed, but will not be graded.

Formative feedback is available to students throughout the module through group discussions, and in workshops. Students are provided with formative feed-forward

for their set exercise through a revision and test preparation session and through the extensive support materials supplied through Blackboard.

Assessment tasks:

Set Exercise (First Sit)
Description: This set exercise will assess a broad knowledge base, and focus on data analysis and interpretation of clinical scenarios and case based material, in order to assess the understanding and application of specialist clinical knowledge. (4 hours)
Weighting: 50 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Portfolio (First Sit)
Description: Portfolio of evidence collated from the workplace during the academic year, as required by professional bodies.
Weighting: 50 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Set Exercise (Resit)
Description: This set exercise will assess a broad knowledge base, and focus on data analysis and interpretation of clinical scenarios and case based material, in order to assess the understanding and application of specialist clinical knowledge. (4 hours)
Weighting: 50 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Portfolio (Resit)

Description: Portfolio of evidence collated from the workplace during the academic year, as required by professional bodies.
Weighting: 50 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Healthcare Science (Neurophysiology) {Apprenticeship-UWE} [Frenchay] BSc (Hons) 2024-25