Module Specification

Methods in Neuroscience

Version: 2022-23, v3.0, 19 Jan 2022

Contents

Part 1: Information

Module title: Methods in Neuroscience

Module code: USPKJN-15-3

Level: Level 6

For implementation from: 2022-23

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Social Sciences

Partner institutions: None

Delivery locations: Frenchay Campus

Field: Psychology

Module type: Standard

Pre-requisites: Mind, Brain, and Development 2022-23

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: In this module the methods used in neuroscience will be explored in theory and practice.

Outline syllabus: The content of the module varies from year to year to take account of the expertise of staff and developments in the field. However, the list below provides a summary of the potential content of this module which focuses on physiological and neurophysiological research methods in psychology and cognitive neuroscience.

Potential topics include:

- nerve conduction velocity, autonomic measures, EDA, EMG, EEG, EOG, fMRI, and eye-tracking;

- methodological issues with each measure including timing, directness of measure, analysis, and interpretation;

- behavioural and neuropsychological testing;

- programming experiments.

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled learning will take a variety of forms, such as lectures, seminars, workshops, and online materials. Independent learning includes essential and further reading, assignment preparation and completion, etc. Throughout the module students will collect a portfolio of evidence for the module learning outcomes.

The following Generic Graduate Skills will be also be Introduced (I), Practiced (P), or Evidenced (E):   1. Communication   2. Professionalism (E) 3. Critical Thinking (E) 4. Digital Fluency (E) 5. Innovative and Enterprising (E) 6. Forward Looking (E) 7. Emotional Intelligence   8. Globally Engaged

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

MO1 Demonstrate a critical understanding of a variety of physiological and neurophysiological methods used in psychology and cognitive neuroscience

MO2 Critically evaluate information that is captured by different physiological and neurophysiological methods

MO3 Critically evaluate the utility, effectiveness and efficiency of methods in terms of time, cost, specificity and sensitivity in a research and clinical context.

MO4 Demonstrate an understanding and awareness of theoretical, psychological, behavioural, experimental timing, and methodological issues in the design and execution of cognitive neuroscience and psychology research that involves physiological or neurophysiological methods

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

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/uspkjn-15-3.html

Part 4: Assessment

Assessment strategy: The assessment will consist of a single portfolio of work where students will demonstrate their understanding and knowledge of physiological and neurophysiological methodologies as employed in contemporary psychology and cognitive neuroscience research. This will include written work and a variety of other forms of assessment, which may include online multiple-choice questions, skills demonstrations and/or video presentations for example.

Students will also evidence strategy development, time management and problem solving skills. They will demonstrate understanding of analytical instrumentation and

associated specialist software. Throughout the module students will receive continuous formative opportunities.

Assessment components:

Portfolio - Component A (First Sit)

Description: Coursework Portfolio

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Portfolio - Component A (Resit)

Description: Portfolio

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Law with Psychology [Sep][FT][Frenchay][3yrs] LLB (Hons) 2020-21

Criminology with Psychology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Psychology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Applied Psychology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Health Psychology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Social Psychology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Psychology and Mental Health [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Biological Psychology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Psychology with Sociology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Psychology with Criminology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Sociology with Psychology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Law with Psychology [Sep][SW][Frenchay][4yrs] LLB (Hons) 2019-20

Criminology with Psychology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20

Criminology with Psychology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Psychology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Psychology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20

Health Psychology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Psychology and Mental Health [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Biological Psychology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Applied Psychology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Social Psychology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Psychology with Sociology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20

Psychology with Sociology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Psychology with Criminology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20

Psychology with Criminology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Sociology with Psychology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20

Sociology with Psychology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Sociology with Psychology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

Psychology with Sociology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

Psychology with Sociology [Sep][PT][Frenchay][6yrs] BSc (Hons) 2018-19

Psychology [Sep][PT][Frenchay][6yrs] BSc (Hons) 2018-19

Psychology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

Psychology with Criminology [Sep][PT][Frenchay][6yrs] BSc (Hons) 2018-19

Psychology with Criminology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

Criminology with Psychology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19