

PS121-15 Brain & Behaviour

23/24

Department

Psychology

Level

Undergraduate Level 1

Module leader

Friederike Schlaghecken

Credit value

15

Module duration

12 weeks

Assessment

32% coursework, 68% exam

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module will introduce the biological and methodological basis of current approaches to sensing, responding, and learning.

[Module web page](#)

Module aims

Taken together, PS121 (Brain and Behaviour), PS120 (Neuropsychology & Psychopathology) and PS122 (Psychology in Context) will provide a general introduction to Psychology designed to support work in the second and third years of the Psychology Honours Degree. The module has two sections. The first section presents a basic introduction to the structure and function of the nervous system. The second section presents an understanding of how organisms detect and respond to stimulation and how learning and goal-directed action are rooted in the brain.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Section 1 will focus on the biological basis of behaviour. Topics will include, for example, the

overall structure of the nervous system, the forebrain and neurons (structure and intracellular signal transmission), chemical synapses (signal transmission, neurotransmitters, pathways and neuro-plasticity), brain development (learning and memory), and injury and rehabilitation. Section 2 will focus on perception, action and learning. Topics will include, for example, sensing and responding (stimulus-elicited behaviour, complexity of reflex action) and behaviour change and learning (habituation and sensitization, pavlovian learning and conditioning, process and mechanism in pavlovian learning).

Learning outcomes

By the end of the module, students should be able to:

- Describe in general terms the anatomical and functional organisation of the nervous system.
- Describe in general terms how neurochemical processes provide the basis of nervous system function.
- Understand in general terms the brain as a continually adapting system at the macro- (developmental) and the micro-level (learning, memory, rehabilitation).
- Understand in general terms how learning, memory, language, emotion, and goal-directed action are rooted in the structure and function of the brain.
- Understand how memory can be lost and learning can be undone.
- Understand how organisms detect and respond to stimulation, how their responses are changed by experience, and the neural processes and circuits that underly these capacities.
- Understand in general terms the links between reflexive, conditioned, habitual, and voluntary (goal-directed) behaviour.

Indicative reading list

Bear, M. F., Connors, B. W., and Paradiso, M. A. (2016). *Neuroscience: Exploring the Brain*. Lippincott Williams and Wilkins

Tresilian, J. (2012). *Sensorimotor control and learning: an introduction to the behavioral neuroscience of action*. Palgrave Macmillan

Kring, A. M., Johnson, S. L., Davison, J. C., & Neale, J. M. (2017). *Abnormal psychology: the science and treatment of psychological disorders*. John Wiley

[View reading list on Talis Aspire](#)

Subject specific skills

Describe in general terms the anatomical and functional organisation of the nervous system.
Describe in general terms how neurochemical processes provide the basis of nervous system function.

Understand in general terms the brain as a continually adapting system at the macro- (developmental) and the micro-level (learning, memory, rehabilitation).

Understand in general terms how learning, memory, language, emotion, and goal-directed action are rooted in the structure and function of the brain.

Understand how organisms detect and respond to stimulation, how their responses are changed by experience, and the neural processes and circuits that underlie these capacities.

Understand in general terms the links between reflexive, conditioned, habitual, and voluntary (goal-directed) behaviour.

Transferable skills

Apply a biologically informed perspective to theory and research in psychology.
Apply a biologically informed perspective to study skills.

Study

Study time

Type	Required
Lectures	34 sessions of 1 hour (23%)
Private study	116 hours (77%)
Total	150 hours

Private study description

116 hours guided private study and preparation for assessment

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group D1

	Weighting	Study time
Online Test 1	16%	
MCQ test covering all material from lectures 1-9 (week 1-5)		
Online Test 2	16%	
MCQ test covering all material from lectures 11-19 (week 6-10)		
Online Examination	68%	
Multiple choice exam		

~Platforms - AEP

- Online examination: No Answerbook required

Feedback on assessment

Formative: Moodle Quiz feedback (question-by-questions mark, correct answer, explanation); Feedback & Revision lectures.

Summative: Moodle Quiz feedback (overall test mark), Tabula (overall exam mark), Sitebuilder Data Reveal (mark break-down for each test and for the exam).

[Past exam papers for PS121](#)

Availability

Post-requisite modules

If you pass this module, you can take:

- PS120-15 Neuropsychology & Psychopathology

Courses

This module is Core for:

- Year 1 of UPHA-L1CA Undergraduate Economics, Psychology and Philosophy
- Year 1 of UPSA-C800 Undergraduate Psychology
- Year 1 of UPSA-C804 Undergraduate Psychology with Education Studies
- Year 1 of UPSA-C802 Undergraduate Psychology with Linguistics

This module is Core optional for:

- Year 1 of UPHA-VL78 BA in Philosophy with Psychology
- Year 1 of UIPA-C8L8 Undergraduate Psychology and Global Sustainable Development