

Cognitive Psychology & Biopsychology

7.1 Module Overview									
Module Number		Module Title	Cognitive Psychology and Biopsychology						
Stage of Principal Programme			3	Semester	2	Duration. (Weeks F/T)	12	ECTS	5
Mandatory / Elective (M/E)	E Core	Hours of Learner Effort / Week	2						
Analysis of required hours of learning effort									
Teaching and Learning Modalities					✓if relevant to this module	Approx. proportion of total (hours)			
Contact Hours									
In person face-to-face					✓	24			
Synchronous									
Indirect/Non-Contact Hours									
Asynchronous									
Work Based									
Other:									
<ul style="list-style-type: none"> Independent reading, engagement with VLE, research and preparation of assessments 					✓	101			
Total						125			

Pre-Requisite Module, if any. Module # and Title	N/A
Co-Requisite Module, if any. Module # and Title	N/A
Maximum number of learners per instance of the module	120
Specification of the qualifications (academic, pedagogical and professional/occupational) and experience required of staff working in this module.	
Role e.g., Tutor, Mentor, Lecturer, Research Supervisor, etc.	Qualifications & experience required
Lecturer	A minimum level 9 qualification in Psychology or closely cognate area
Staff - Learner Ratio X:Y	1:120

Assessment Techniques – percentage contribution					
Continuous Assessment	100%	Proctored Exam – in person		Practical Skills Based	
Project		Proctored Exam - online		Work Based	
Capstone (Y/N)?	Y	If Yes, describe	The capstone is a large piece of assessment that allows the learner to demonstrate the range of skills and knowledge they have developed in the subject over the course of the programme. It provides scope for the learner to showcase their own research and ideas on the topic.		

7.2 Minimum Intended Module Learning Outcomes (MIMLOs)

MIMLO On completion of this module a learner will be able to:	Related MIPLO #
1. Discuss, evaluate, and understand the core components of sensation, attention, and perception, within the cognitive system.	1, 2, 6
2. Demonstrate a critical understanding of higher order perceptual impairments.	1, 7
3. Engage robustly with face recognition problems, such as agnosia, and prosopagnosia.	5
4. Critically evaluate the ways that humans processes colour and movement.	4, 5

7.3 Indicative Module Content, Organisation and Structure

Cognitive Psychology and Biopsychology is considered a core aspect of psychological study (PSI, 2020). The rationale for including this module is to introduce the learner at an early stage to the ways Cognitive Psychologists study internal mental processes, including attention, perception, and object and facial recognition.

There are numerous practical applications for this cognitive research, such as providing help coping with disorders of perception, finding ways to help people recover from acquired brain injury, and structuring educational and environmental supports to enhance learning. Learning more about how individuals think, and process information not only helps learners gain a deeper understanding of how the human brain works, but it allows future psychologists to develop new ways of helping people deal with psychological difficulties.

The overall aim of this core module is to introduce the learner to how human beings attend to and gain information about the world. The objectives are that the learner will engage with the various cognitive theories and research evidence that portray how such information is perceived and processed by the human brain. The study of cognitive psychology involves investigating how the brain recognises and mentally processes information from the environment, that is received through the senses, in order to recognise objects, faces, colours and sounds. Furthermore, to examine what can go wrong when there are errors in cognition and resultant cognitive impairments. By studying this core module, the learner will deepen their understanding of psychology and enhance their knowledge of how to relate psychological learning with the ways practical steps can be taken by psychologists to improve quality of life for people with cognitive impairments.

Over the course of 12 weeks the learner will cover topic such as:

An Introduction to Cognitive Psychology:

- Exploring the landscape of psychology before the advent of cognitive psychology.
- Precursors of cognitive psychology (i.e., the influence of philosophy).
- Outline the factors that lead to the mainstreaming of cognitive psychology.
- The relevance of cognitive psychology within the modern context.

Explaining Cognitive Psychology.

- Methods used in this discipline: Introducing the Case Study Approach.
- Diagram Approaches
- Models of Understanding Approaches
- Converging Operations.

Sensation and Attention

- Bottom-Up vs Top-Down Processing
- Signal Detection Theory
- Selective Attention
- Sustained Attention
- Executive Attention
- Change Blindness

Perception:

- Explore visual perception considering early theories of perception, the constructivist approach and the ecological approach.
- Explore visual illusions and outline how these can be explained by cognitive psychology.
- Culture and perception.

Object Recognition Phase 1

- Understanding the power of Object Recognition
- Object Recognition and Naming
- Object Constancy
- Agnosia-the lack of normal recognition
- A Case Study of Agnosia

Object Recognition Phase 2

- Higher Order Perceptual Impairment
- Introducing Integrative Agnosia
- Introducing the Optic Agnosia
- Case Studies

Visual and Spatial Abilities

- How we process colour
- How we process movement
- What is Blindsight?
- Visual Location and Soldiers in WW1
- Spatial Attention and Extinction

Face Processing

- What is it?
- A Functional Model of Face Recognition
- The case study of PH and his inability to recognise faces
- Prosopagnosia
- Face Memory Errors
- Case Studies

Name Retrieval Problems

- Covert recognition in Prosopagnosia
- Specificity of Face Recognition Problems
- Different Types of Face Recognition Ability
- Expression Analysis
- Lip-reading

7.4 Work-based learning and practice-placement (if applicable)

N/A

7.5 Specific module resources required (if applicable)

There are requirements for the psychology learner to have access to statistical packages for psychological research in the psychology lab, such as SPSS and NVIVO. These licenses and packages are provided to the learners in the College.

7.6 Application of programme teaching, learning and assessment strategies to this module

The module will be delivered over 12 weeks, which consists of lectures (12). The lecturer will utilise research informed theories, analysis and critique in delivering the content. Group work also provides opportunity to apply psychological theories and research to real world scenarios.

Assessments for this module consists of a major essay or project of 3,000 words.

Major Essay.

The essay will be an assignment to examine students' learning and skills developed over the course of the programme. It will also examine their understanding of the content of this module. Learners have the opportunity to demonstrate understanding of material and ability to compare, contrast and critique psychological theories, as well as their research, academic writing, and referencing skills (MIMLOs 1, 2, 3, 4).

7.7 Summative Assessment Strategy for this module

MIMLOs	Technique(s)	Weighting
1-4	Major Essay/Project (3,000 wds)	100%

7.8 Sample Assessment Materials

Major Essay

This module will ask the learner to write an essay on one of the following subjects:

- Sensation and Attention
- Perception
- Object and Facial Recognition
- Name Retrieval Problems

This will have a word limit of 3,000 words. The guidelines involve:

1. Adhering to APA formatting within the presented work.
2. Work must be proof-read for spelling and grammatical errors.
3. Include a Title page for the presentation and a separate page of references.
4. Employing a discursive and critical approach to the topic.
5. Using a balanced, objective approach to the question outlined.
6. Do not refer to "I" in this work, instead write in the third party.
7. All work should include reference to appropriate peer-reviewed texts or resources when making a specific point or argument.
8. Demonstrate an appropriate depth and breadth of reading.

This work will be graded as follows:

- Structure (Guidelines 1 – 3) is worth 20%.
- Academic understanding and ability as per Guidelines 4 – 6 is worth 50%.
- The remaining 30% is awarded for content comprehension and excellent flow to the work (as indicated by Guidelines 7 - 8).

Marking of assessments will be in line with the Marking Assessment Guidelines as outlined in Section 3.3 of the College's [Regulations in Relation to Assessment and Standards](#) unless otherwise indicated.

7.9 Indicative reading lists and other information resources

Indicative Core Reading:

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders (5th ed., text rev.)*. <https://doi.org/10.1176/appi.books.9780890425787>

Anderson, J. R. (2020). *Cognitive psychology and its implications* (9th ed.). UK: Macmillan Learning.

Goldstein, E. B. (2018). *Cognitive psychology: Connecting mind, research, and everyday experience* (5th ed.). Boston: Cengage.

Goldstein, E. and Van Hooff, J. (2018). *Cognitive Psychology* (4th ed.). Stanford: Cengage Learning.

Heyes, C. (2018). *Cognitive Gadgets: The Cultural Evolution of Thinking*. Belknap Press.

Indicative Other Resources:

Case Studies and articles as posted on Moodle by the Lecturer. These include articles from journals such as:

Cognitive Science

Cognitive Linguistics

Topics in Cognitive Science

Cognitive Neuroscience

Applied Cognitive Psychology

Journal of Cognitive Psychology

Cognitive Development

Advances in Cognitive Psychology

Essential Viewing:

Clips of patients with cognitive disorders

Brain imaging videos