

Liverpool John Moores University

Title: COGNITIVE NEUROSCIENCE
Status: Definitive
Code: **6203PSYSCI** (121380)
Version Start Date: 01-08-2021

Owning School/Faculty: Psychology
Teaching School/Faculty: Psychology

Team	Leader
Valentina Cazzato	Y
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Academic Level: FHEQ6 **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	30
Online	4
Seminar	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	Essay	Essay assignment	60	
Exam	Exam	Exam based essays	40	2

Aims

1. To examine the relationship between brain and behaviour.
2. To introduce the main methodologies of Cognitive Neuroscience, such as brain imaging, lesion studies, electrophysiological studies.

3. *To examine how the use of different neuroscientific methodologies fosters the understanding of cognitive functions.*
4. *To explore the role of Cognitive Neuropsychology within the wider field of Cognitive Neuroscience.*
5. *To examine the effects of different types of brain damage on psychological functioning.*
6. *To examine several cognitive functions in greater detail, as for example perception, attention, memory, or executive functions.*

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically appraise the contribution of various neuroscientific methods to understanding cognitive functions
- 2 Assess the usefulness of studying acquired cognitive disorders for our understanding of normal cognitive processes.
- 3 Critically evaluate the link between brain activity and cognitive functions.

Learning Outcomes of Assessments

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

Essay	1	3
Exam	2	3

Outline Syllabus

- *Methods of Cognitive Neuroscience*
- *Conceptual and historical issues of cognitive neuroscience*
- *Attentional functions and dysfunctions*
- *Neurotransmission and Neurotransmitters*
- *Object recognition - processes and impairments*
- *Executive functions*
- *Memory and memory disorders*
- *Neuroscience of thinking and reasoning*
- *Neuroscience of language and reading*

Learning Activities

Students on this module will engage in a range of different learning activities. Many of the lectures will include interactive components which encourage students to participate in active exchange in groups and with the tutors. Directed seminar activities will facilitate the active engagement with neuroscientific knowledge. Learning will furthermore be supported by directed reading of published research and a range of online-activities such as discussion forums.

Notes

Cognitive Neuroscience addresses the question how the brain enables human cognition and behaviour by employing a variety of different methodologies. The module will examine how methodologies as for example lesion studies, functional brain imaging, electrophysiological studies and behavioural experiments contribute to our understanding of a variety of cognitive functions such as memory, attention and perception. It will encourage students to acknowledge the importance of considering converging evidence from a variety of empirical sources to understand human cognitive functions. It further provides an appropriate conceptual and historical framework of cognitive neuroscience.