

## Neuropsychology

<b>Module title</b>										
<b>Neuropsychology</b>										
<b>Module NFQ level</b> (only if an NFQ level can be demonstrated)		<b>Module number/reference</b>		<b>ECTS Value</b>		<b>Duration</b>				
8				5		12 weeks				
<b>Parent programme(s)</b> . Principal programme title, and embedded(s) if relevant				<b>Stage of parent programme</b>		<b>Semester No.</b>				
BA (Honours) in Psychology				3		2				
<b>Teaching and Learning modes</b>		<b>Proportion</b> (% of Total Directed Learning)								
Classroom / Face to Face		19.2%								
Workplace										
Online										
Other (Identify)		80.8% (Directed and self-directed Learning)								
<b>Entry requirements (statement of knowledge, skill and competence)</b>										
Successful completion of Stage 1 of the programme or equivalent is required for entry onto Stage 3.										
<b>Maximum number of learners per instance of the module</b>			40							
<b>Average (over the duration of the module) of the contact hours per week</b>			2							
<b>Pre-requisite module title(s) (if any)</b>										
<b>Co-requisite module title(s) (if any)</b>										
<b>Is this a capstone module? (Yes or No)</b>			No							
<b>Module-specific physical resources and support required per centre (or instance of the module)</b>										
Lecture Hall, small group-work room; Library; IT Resources such as Moodle, Microsoft PowerPoint and Screens										
<b>Specification of the qualifications (academic, pedagogical and professional/occupational) and experience required of staff working in this module.</b>										
<b>Role e.g. Tutor, Mentor etc.</b>		<b>Qualifications &amp; experience required:</b>				<b># of Staff with this profile (WTEs)</b>				
Lecturer/Tutor		Minimum level 9 qualification in Psychology with teaching and/or research competence in the area				100%				
<b>Analysis of required learning effort</b>										
			<b>Hours of Learner effort</b>							
<b>Classroom and demonstrations</b>		<b>Mentoring and small-group tutoring</b>		<b>Other (specify)</b>		<b>Directed e-learning</b>	<b>Independent learning</b>	<b>Other (specify)</b>	<b>Work-based learning</b>	<b>Total effort</b>
Hours	Minimum ratio teacher/learn	Hours	Minimum ratio teacher/learn	Hours	Minimum ratio teacher/learn					
24	1:10						101			125

Allocation of Marks					
	Continuous Assessment	Supervised Project	Proctored Practical Exam.	Proctored Written Exam	Total
Percentage Contribution	40%			60%	100%

<p><b>Rationale for Inclusion of the Module in the Programme and its Contribution to the Overall IPLOs</b></p>	<p>The rationale for the inclusion of this module is to afford the learner the opportunity to explore psychological issues from a neuropsychological perspective. This module explores the neuropsychological underpinnings of human behaviour and looks at the way in which the brain shapes and is shaped by experience. Building on their biological knowledge from Stage 1 (<i>Biological Basis of Behaviour</i>), learners will receive advanced introduction to brain anatomical features and will also be introduced to neuropsychological assessment and research methods. More specifically, the module focuses on key areas of study such as emotion, perception and decision making and looks at how key findings in the discipline have changed the way in which human behaviour is understood. Learners will be introduced to real world applications of neuropsychology. The module will identify ways in which neuropsychology theory and research can be applied in practice. This will include topics such as neurodegenerative and psychiatric disorders, treatment and rehabilitation. Within this module, learners will integrate and critically evaluate information and data from a variety of sources to construct cogent arguments. They will attend to the distinction between primary and secondary sources of information and critically evaluate a wide range of peer reviewed research materials in neuropsychology.</p>
<p><b>Module Aims and Objectives</b></p>	<p>The main aims and objectives of this core module are to provide the learner with advanced level understanding of topics in neuropsychology, building on the earlier Stage 1 module on the biological basis of behaviour. Learners will learn about the link between the brain and behaviour in both normal and disordered individuals. The module will also discuss treatments and recovery. There will also be a strong focus on techniques used by neuropsychologists to investigate the brain and its functioning. Learners will learn about the wider implications of the brain basis of emotions and cognitive function.</p>
<p><b>Minimum Intended Module Learning Outcomes</b></p>	<p>On successful completion of this module, learners should be able to:</p> <ol style="list-style-type: none"> <li>1. Provide coherent, analytic and critical accounts of relevant literature on advanced topics in neuropsychology. (MIPLO 1, 2, 4, 6, 7)</li> <li>2. Demonstrate knowledge of research methods from brain-damaged individuals to pharmacological studies/ imaging of the healthy brain. (MIPLO 2, 3, 4, 6)</li> <li>3. Appreciate what a damaged brain can tell neuropsychologists about normal brain function. (MIPLO 1, 2, 8)</li> <li>4. Evaluate the neuropsychology of the various types of dementia. (MIPLO 1, 2, 4)</li> </ol>

<p><b>Information Provided to Learners about the Module</b></p>	<p>College Prospectus specifies module name, stage and ECTS.</p> <p>College website and programme handbook to contain (in addition to above) short description of module content, module learning outcomes, prerequisite modules, and assessment mechanisms.</p> <p>Module Moodle Page to contain (in addition to above) schedule of classes and topics, detailed assessment information with titles and submission dates, full bibliography and list of learning resources.</p>
<p><b>Module Content, Organisation and Structure</b></p>	<p>Over the course of 12 two-hour lectures, the learner will cover topics such as:</p> <p><b>Introduction and Overview</b></p> <ul style="list-style-type: none"> <li>• The Development of Neuropsychology</li> <li>• Debates on The Origins of Human Behaviour</li> <li>• Ethical Issues and Individual Differences in Neuropsychology</li> </ul> <p><b>Nervous System Organisation</b></p> <ul style="list-style-type: none"> <li>• The Structure and Electrical Activity of Neurons</li> <li>• Communication Between Neurons</li> <li>• Neurotransmission: The Structure and Function of the Central Nervous System from Cell Level to Brain Regions</li> </ul> <p><b>Hormones and Behaviour</b></p> <ul style="list-style-type: none"> <li>• The Influence of Drugs and Hormones On Behaviour</li> <li>• Critical Hormonal Function</li> </ul> <p><b>Evolution and Human Behaviour</b></p> <ul style="list-style-type: none"> <li>• Behavioural and Population Genetics</li> <li>• Human Behavioural Ecology</li> <li>• Evolutionary Psychology and Game Theory</li> <li>• Neural Correlates of Emotion and Everyday Experiences</li> </ul> <p><b>Neuropsychological Assessments and Methods</b></p> <ul style="list-style-type: none"> <li>• Neuroimaging Techniques and Methodologies</li> <li>• Imaging the Brain's Activity</li> </ul> <p><b>Cortical Organisation</b></p> <ul style="list-style-type: none"> <li>• Organisation of The Sensory Systems</li> <li>• Organisation of The Motor Systems</li> <li>• Principles of Neurocortical Function</li> <li>• Cerebral Asymmetry</li> <li>• Variations in Cerebral Asymmetry</li> </ul> <p><b>Cortical Functions</b></p> <ul style="list-style-type: none"> <li>• The Occipital Lobe</li> <li>• The Parietal Lobe</li> <li>• The Temporal Lobe</li> <li>• The Frontal Lobe</li> <li>• Disconnection Syndromes</li> </ul> <p><b>Higher Functions</b></p>

	<ul style="list-style-type: none"> <li>• Developmental Neuropsychology and Critical Periods (ASD, ADHD)</li> <li>• The Neuropsychological Basis of Memory, Language and Perception</li> <li>• Neuropsychology and Emotion</li> </ul> <p><b>Plasticity and Disorders</b></p> <ul style="list-style-type: none"> <li>• Biological Basis of Psychological or Behavioural Abnormalities</li> <li>• Executive Functions and Frontal Lobe Disorders,</li> <li>• Neurodegenerative Disease and Psychiatric Disorders</li> <li>• Neuropsychology of Dementia (E.G. Alzheimer’s Disease)</li> <li>• Phantom Limb Phenomenon</li> </ul> <p><b>The Neuropsychology Of Brain Damage</b></p> <ul style="list-style-type: none"> <li>• Consequences, Recovery and Rehabilitation.</li> <li>• Treatments for Brain Damage and Disordered Behaviour</li> <li>• Psychopharmacology, Drug Action and Addiction.</li> </ul>
<p><b>Module Teaching and Learning (including formative assessment)Strategy</b></p>	<p>This module will be delivered in a two-hour lecture for twelve weeks. The rationale for this teaching mode rests in the amount of information to be covered in this timeframe. Contact hours will consist of lectures with opportunities for small group discussions and Q&amp;A. It is envisaged that online learning activities and resources will be provided to support face to face contact time.</p> <p>Moodle will be used each week to upload relevant articles, required reading and in some instances, links to essential viewing.</p>
<p><b>Work-Based Learning and Practice-Placement</b></p>	<p>N/A</p>
<p><b>E-Learning</b></p>	<p>N/A</p>
<p><b>Specifications for Module Staffing Requirements</b></p>	<p>Staff: Learner ratio is typical of the overall programme approach with a maximum of 40 learners.</p> <p>Staffing requirements: 1 lecturer with teaching and/or research competence in the relevant area.</p>
<p><b>Module Summative Assessment Strategy</b></p>	<p>Assessments for this module include:</p> <p>(A) Group presentation on a neuropsychological topic (e.g. types of dementia) (40%)</p> <p>(B) End of Semester Exam (60%) (Learners will answer two out of four questions).</p>
<p><b>Sample Assessment Materials</b></p>	<p><b>A) Group Presentation:</b></p> <p>This module will ask the learners (in groups of three or four) to provide a 20-minute presentation based Group presentation on a neuropsychological topic (e.g. types of dementia).</p> <p>This assessment addresses MIMLOs 1-4.</p> <p>This presentation will be equivalent to 1,000 – 1,250 words and should take at least eight hours of learner effort. The guidelines involve:</p> <ol style="list-style-type: none"> <li>1. Adhering to APA formatting within the presented work.</li> </ol>

	<ol style="list-style-type: none"> <li>2. Work must be proof-read for spelling and grammatical errors.</li> <li>3. Include a Title page for the presentation and a separate page of references.</li> <li>4. Employing a discursive and critical approach to the topic.</li> <li>5. Using a balanced, objective approach to the question outlined.</li> <li>6. Do not refer to “I” in this work, instead write in the third party.</li> <li>7. All work should include reference to appropriate peer-reviewed texts or resources when making a specific point or argument.</li> <li>8. As this is a presentation, learners must ensure that their slides are not overly cluttered and are clearly legible, while still demonstrating an appropriate depth and breadth of reading.</li> <li>9. Communicate clearly and effectively.</li> </ol> <p>This work is worth 40% of the Continuous Assessment and is graded as follows:</p> <ul style="list-style-type: none"> <li>• Structure (Guidelines 1 – 3) is worth 10%.</li> <li>• Academic understanding and ability as per Guidelines 4 – 6 is worth 20%.</li> <li>• The remaining 10% is awarded for content comprehension and excellent flow to the work (as indicated by Guidelines 7 - 9).</li> </ul> <p><b>(B) Exam</b> The learner must answer two out of four exam questions.</p> <p><b>Sample Exam Question:</b> Discuss <b>three</b> types of brain injury and how they impact human behaviour. Refer to neuropsychological research studies in your answer.</p>
<p><b>Reading Lists and Other Information Resources</b></p>	<p><b>Core Reading:</b> Andrews, D. (2015). <i>Neuropsychology: From theory to practice</i>. New York: Routledge.</p> <p>Coolidge, F. L. (2020). <i>Evolutionary neuropsychology: An introduction to the structures and functions of the human brain</i>. New York: Oxford University Press.</p> <p>Kolb, B. (2015). <i>Fundamentals of human neuropsychology</i>. UK: Worth.</p> <p><b>Online/Digital Resources:</b> Google Scholar EBSCO Digital Journal Resource Educational Ted Talks/YouTube Videos</p> <p><b>Other Reading:</b> Articles and studies uploaded to Moodle by the module Lecturer from journals such as:</p> <p><i>Neuropsychology Review</i> <i>Journal of Neuropsychology</i> <i>Neuropsychology</i> <i>Child Neuropsychology</i> <i>Archives of Clinical Neuropsychology</i> <i>Journal of Clinical and Experimental Neuropsychology</i> <i>Developmental Neuropsychology</i></p>

	<i>Aging Neuropsychology and Cognition</i>
<b>Module Physical Resource Requirements</b>	Lecture Hall and tutorial room with PowerPoint, DVD and internet access.