Cognitive & Clinical Neuroscience

Programme Specification

	Cognitive & Clinical Neuroscience
2. Awarding institution	Middlesex University
3. Teaching institution	Middlesex University
4. Details of accreditation by professional/statutory/regulatory body	N/A
5. Final qualification(s) available	*MSc Cognitive and Clinical Neuroscience* *PGDip Cognitive and Clinical Neuroscience* *PGCert Cognitive and Clinical Neuroscience*
6. Year of validation / last review **Year of amendment**	**2020/2021** **2021/2022**
7. Language of study	English
8. Mode of study	Full time or Part Time.

9. Criteria for admission to the programme

An upper second-class degree in Psychology, Neuroscience, Clinical Neuroscience or related degree is preferred. Applicants without such qualifications but relevant experience will be considered on a case-by-case basis.

Students whom English is a second language must have achieved IELTS 6.5 or above.

10. Aims of the programme

The programme aims to:

1. Provide students with the skills to engage critically with contemporary cognitive and clinical neuroscience research.
2. Develop a critical understanding of the relationship between brain states and cognition.
3. Enable students to understand and engage critically with research in developmental cognitive and clinical neuroscience.
4. Enable students to acquire an understanding of electrophysiology, non-invasive brain stimulation and neuroimaging methods to advance our understanding of the nervous system in health and disease.
5. Provide students with a knowledge base and practical skills in inferential statistics.
6. Facilitate the completion of an independent research project in cognitive neuroscience.

11. Programme outcomes*

A. Knowledge and understanding On completion of this programme the successful student will have knowledge and understanding of : 1. The complex relationship between the brain, cognition and behaviour. 2. The development of the brain and cognition across the lifespan. 3. Contemporary issues in research methods and the scientific method. 4. Inferential statistics and how they are used in biomedical and psychological research. 5. Neural and brain processes in health and disease. 6. Research methods in neuroimaging, neurophysiology and non-invasive brain stimulation.	**Teaching/learning methods** Students gain knowledge and understanding through • Attending lectures • Participatory seminars • Small group discussions • Directed learning • Group and individual exercises **Assessment methods** Students' knowledge and understanding is assessed by both formative and summative assessments that include: • Essays. • Practical assessment • Presentations. • Reports.
B. Skills On completion of this programme the successful student will be able to:	**Teaching/learning methods** Students learn cognitive and practical skills through: • Lectures • Group discussions

1. Use inferential statistics to examine biomedical and psychological data. 2. Use EEG equipment to record brain activity. 3. Use some form of non-invasive brain stimulation to change brain states. 4. Pre-process, analyse and interpret data recorded from EEG. 5. Critically evaluate contemporary research in cognitive and clinical neuroscience. 6. Design and carry out an original research project that explores cognitive processes by examining or changing brain states.	• Individual project • Laboratory session • Hands-on exercises **Assessment methods** Students' cognitive skills are assessed by both formative and summative assessments that include: • Lab reports. • Presentations. • Research reports.

12. Programme structure (levels, modules, credits and progression requirements)

12. 1 Overall structure of the programme

Full-time route

October January	January April	May September
Research methods – quantitative (15 credits)(PSY4050)		
Open Science (15 credits)(PSY4062)		
Fundamentals of Neuropsychology (15 credits)(PSY4157)	Neuropathology (15 credits) (BMS4167)	
Specialised Techniques in Clinical Neurophysiology (15 credits)(BMS4187)	Developmental Neuroscience (15 credits)(PSY4060)	
Practical Cognitive Neuroscience (30 credits)(PSY4061)		
Research: Practice and Reporting (60 credits)(PSY4035)		

Part-time route
Year 1

October January	January April	May September
Research methods – quantitative (15 credits) (PSY4050)		
Open Science (15 credits) (PSY4062)		
Fundamentals of Neuropsychology (15 credits)(PSY4157)	Developmental Neuroscience (15 credits)(PSY4060)	
Research: Practice and Reporting (60 credits)(PSY4035)		

Year 2

October January	January April	May September
Practical Cognitive Neuroscience (30 credits)(PSY4061)		
Specialised Techniques in Clinical Neurophysiology (15 credits)(BMS4187)	Neuropathology (15 credits) (BMS4167)	
Research: Practice and Reporting (60 credits)(PSY4035)		

12.2 Levels and modules		
Level 7		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Research methods – quantitative (15 credits) (PSY4050) Open Science (15 credits) (PSY4062) Fundamentals of Neuropsychology (15 credits) (PSY4157) Neuropathology (15 credits) (BMS4167) Specialised Techniques in Clinical Neurophysiology (15 credits) (BMS4187) Developmental Neuroscience (15 credits) (PSY4060) Practical Cognitive Neuroscience (30 credits) (PSY4061) Research: Practice and Reporting (60 credits) (PSY4035)	There are no optional modules.	

12.3 Non-compensatable modules	
Module level	**Module code**

Research: Practice and Reporting	PSY4035

13. Information about assessment regulations

Assessment regulations are followed as approved by Middlesex University:

https://unihub.mdx.ac.uk/study/assessment/regulations

14. Placement opportunities, requirements and support

No placement opportunities are offered as part of this programme.

15. Future careers / progression

Students graduating with a Cognitive and Clinical Neuroscience MSc will be provided with skills and knowledge necessary for careers in UK health services and research centres. The programme is suited for students who want to pursue a career in data science, cognitive science, academic research (MPhil/PhD), teaching in higher education, and clinical neurophysiology (e.g. in the NHS).

The range of professional skills that Cognitive and Clinical Neuroscience MSc graduates develop ensures that they are highly valued across the economy. The programme develops a range of broad skills including critical thinking and scientific reasoning. As well as this, specific expertise in neuroimaging and stimulation techniques are developed. Further, students are taught advanced data handling, information processing and statistical techniques. With a greater presence on data handling and critical engagement with statistics in today's workplace these skills are thought to provide better opportunities for graduates to enter positions where data analytics are valued. The specific skills in practical engagement with neuroimaging and stimulation provide a grounding in experience for students to progress along a clinical career. Furthermore, claims about cognitive neuroscience are pervasive in marketing – the programme will also adequately equip students with the data handling and critical skills to be able to pursue marketing careers.

16. Particular support for learning (if applicable)

All new students go through an induction programme and some have early diagnostic numeric and literacy testing before starting their programme. The Learner Enhancement Team (LET) provide one-to- one tutorials and workshops for those students needing additional support in these areas.

High quality specialist laboratories equipped with research grade software and hardware where appropriate, for formal teaching as well as self-study.

Research activities of academic staff feed into the teaching programme, which can, on some occasions, provide an opportunity for students to work with academics on some aspect of research.

17. JACS code (or other relevant coding system)	C861 and C845 and B140
18. Relevant QAA subject benchmark group(s)	

19. Reference points

Internal documentation

- Middlesex University (2006) Learning Framework Document. London, MU
- Middlesex University (2019) Middlesex University Regulations. London, MU
- Middlesex University (2019) Learning and Quality Enhancement Handbook. London, MU
- Middlesex University (2019) Medical Science and Technology Learning, Teaching and Assessment Strategy. S&T

External documentation

- Quality Assurance Agency (2008) Framework for Higher Qualification. London, QAA

20. Other information

Please note programme specifications provide a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve if s/he takes full advantage of the learning opportunities that are provided. More detailed information about the programme can be found in the rest of your programme handbook and the university regulations.

Curriculum map for *Cognitive & Clinical Neuroscience*

This section shows the highest level at which programme outcomes are to be achieved by all graduates, and maps programme learning outcomes against the modules in which they are assessed.

Programme learning outcomes

Knowledge and understanding	
A1	The complex relationship between the brain, cognition and behaviour.
A2	The development of the brain and cognition across the lifespan.
A3	Contemporary issues in research methods and the scientific method.
A4	Inferential statistics and how they are used in biomedical and psychological research.
A5	Neural and brain processes in health and disease.
A6	Research methods in neuroimaging, neurophysiology and non-invasive brain stimulation.
Skills	
B1	Use inferential statistics to examine biomedical and psychological data.
B2	Use EEG equipment to record brain activity.
B3	Use some form of non-invasive brain stimulation to change brain states.
B4	Pre-process, analyse and interpret data recorded from EEG.

B5	Critically evaluate contemporary research in cognitive and clinical neuroscience.
B6	Design and carry out an original research project that explores cognitive processes by examining or changing brain states

Programme outcomes														
A1	A2	A3	A4	A5	A6		B1	B2	B3	B4	B5	B6		
Highest level achieved by all graduates														
7	7	7	7	7	7		7	7	7	7	7	7		

Module Title	Module Code by Level	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6
Research methods: quantitative	PSY4050			x	x			x					
Fundamentals of Neuropsychology	PSY4157	x				x						x	
Practical Cognitive Neuroscience	PSY4061	x		x			x		x	x	x		
Open Science	PSY4062			x	x			x					
Research: practice and reporting	PSY4035			x				x				x	x
Neuropathology	BMS4167					x						x	
Developmental Neuroscience	PSY4060		x			x							
Specialised Techniques in Clinical Physiology	BMS4187					x	x				x		