

## ***BSc (Hons) Neuroscience***

### Programme Specification

<b>1. Programme title</b>	BSc (Hons) Neuroscience BSc (Hons) Neuroscience with Foundation Year
<b>2. Awarding institution</b>	Middlesex University
<b>3a. Teaching institution</b>	Middlesex University
<b>3b. Language of study</b>	English
<b>4a. Valid intake dates</b>	September
<b>4b. Mode of study</b>	FT/PT
<b>4c. Delivery method</b>	<input checked="" type="checkbox"/> On-campus/Blended <input type="checkbox"/> Distance Education
<b>5. Professional/Statutory/Regulatory body</b>	N/A
<b>6. Apprenticeship Standard</b>	N/A
<b>7. Final qualification(s) available</b>	BSc (Hons) Neuroscience BSc (Hons) Neuroscience with Foundation Year BSc Neuroscience DipHE Neuroscience CertHE Neuroscience
<b>8. Academic year effective from</b>	<b>2024-2025</b>

<b>9. Criteria for admission to the programme</b>
<p>Candidates normally require Maths and English to at least GCSE grade 4 or equivalent qualifications as well as 112-128 UCAS tariff points from one of the following awards.</p> <ul style="list-style-type: none"> <li>• A-levels (including two A2s with at least one science subject, preferably in biology or chemistry at grade C or better)</li> <li>• Or EDEXCEL National Diploma or Certificate in biology, chemistry, forensic science, laboratory and industrial science, or medical science</li> <li>• Or Access course in applied science, clinical physiology, human or life sciences, medical or paramedical science, or science.</li> <li>• Or high school equivalent, such as an International Baccalaureate</li> </ul>

Applicants must be competent in English to study this course. For those for whom English is not their first language, the most commonly accepted evidence of English language ability is IELTS 6.0 (with a minimum of 5.5 in all components) qualification.

Recognition of Prior Learning (RPL) scheme: Past learning or experience will be mapped against existing programme modules within the programme and the mapping will be considered to determine both the number of academic credits and the module exceptions to be awarded.

Please refer to the programme specification for the Foundation Year for criteria for admission to [the BSc \(Hons\) Neuroscience with Foundation Year programme](#).

## 10. Aims of the programme

The programme aims to provide students with an opportunity to:

- Gain a detailed knowledge of neuron structure and function;
- Develop an appreciation of key concepts and theories in cognitive neuroscience;
- Acquire knowledge and skills required to carry out a range of investigative techniques used to assess and diagnose normal and abnormal neuronal function;
- Apply scientific methods and approaches to research, development and innovation;
- Develop a range of employability skills required for effective life-long learning, communication, team-working and leadership.
- Recognize ethical issues in clinical and research settings.

## 11. Programme outcomes\*

### A. Knowledge and understanding

On completion of this programme the successful student will have knowledge and understanding of:

1. Anatomy of the nervous system;
2. Normal and abnormal neuronal function;
3. The mind and its processes;
4. The principles of diagnosis and treatment of neurological disorders;
5. The importance of scientific research in the advancement of knowledge and to evidence-based practice;
6. The skills required to monitor and assess brain and nerve functions;
7. Neurophysiological techniques.
8. How the human body adapts or responds to environmental stressors
9. The causes of and pathophysiology of diseases of various human systems and their treatment.

1. Ethical issues related to clinical and research procedures.

**Teaching/learning methods**

Students gain knowledge and understanding through short key concept videos, interactive learning sessions, seminars/workshops and laboratory work, self-study (both directed and self-directed) and online learning.

**Assessment methods**

Students' knowledge and understanding is assessed by both summative and formative assessments, which include seminar presentations, written assignments including laboratory reports, seen practical assessments.

**B. Skills**

On completion of this programme the successful student will be able to:

1. Solve neurophysiological problems;
2. Critically appraise and synthesise information to gain new insights into aspects of neuroscience;
3. Present information in the most effective format to communicate ideas clearly;
4. Design and carry out research project;
5. Perform a range of neurological investigative techniques in accordance with health and safety guidelines;
6. Demonstrate other employability skills such as leadership, collaborative working, project management and IT skills.

**Teaching/learning methods**

Students learn skills through bite size videos covering threshold concepts, interactive sessions, seminars, peer presentations, a research project and debates, through reading, group work, problem-based solving exercises, structured and directed learning, analysis of case studies, and through reflection, and development of portfolio material.

**Assessment methods**

Students' skills are assessed by formative and summative assessment as written work such as lab reports, case studies, assessment of practical skills and peer presentation, work in the form of portfolios, and project and research work.

These assessment methods are designed to evaluate graduate competencies including:

1. Leadership and Influence
2. Entrepreneurship
3. Communication, Empathy and Inclusion
4. Curiosity and Learning
5. Collaborative Innovation
6. Resilience and Adaptability
7. Technological Agility
8. Problem Solving and Delivery

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

### **12.1 Structure of the programme**

#### **BSc (Hons) Neuroscience – Full Time**

##### **Year 1**

- Semester 1: Fundamental Neuroscience (BMS1494, 30 credits), Laboratory and Professional Skills (BMS1565, 30 credits)
- Semester 2: Cell Sciences & Genetics (BIO1557, 30 credits), Psychological Science: From Biology to Individual Variation (PSY1210, 30 credits)

##### **Year 2**

- Semester 1: Neurophysiology (BMS2955, 30 credits), Brain, Body and Mind (PSY2006, 30 credits)
- Semester 2: Neuropharmacology (BMS2415, 30 credits), Research Methods and Science Innovation (BMS2586, 30 credits)

##### **Year 3**

- Semester 1: Neuroanatomy and Pathology (BMS2976, 30 credits), Clinical Neurology (BMS3496, 30 credits)
- Semester 2: Optional Module (30 credits), Dissertation and Professional Development (BMS3506, 30 credits)

#### **Optional Modules:**

- Clinical Diagnostics (BMS3314 - not available 24-25)
- Molecular and Cellular Pathology (BMS3596 - not available 24-25)
- Primatology (PSY3057 - 24-25: 15 credits; PSY3250 25-26: 30 credits)
- Evolutionary Approaches to Behaviour (PSY3055 - 24-25: 15 credits; PSY3240 25-26: 30 credits)

#### **BSc (Hons) Neuroscience – Indicative Part-Time (6-year plan)**

##### **Year 1**

- Semester 1: Fundamental Neuroscience (BMS1494, 30 credits)
- Semester 2: Cell Sciences & Genetics (BIO1557, 30 credits)

##### **Year 2**

- Semester 1: Laboratory and Professional Skills (BMS1565, 30 credits)
- Semester 2: Psychological Science: From Biology to Individual Variation (PSY1210, 30 credits)

##### **Year 3**

- Semester 1: Neurophysiology (BMS2955, 30 credits)
- Semester 2: Neuropharmacology (BMS2415, 30 credits)

##### **Year 4**

- Semester 1: Brain, Body and Mind (PSY2006, 30 credits)
- Semester 2: Research Methods and Science Innovation (BMS2586, 30 credits)

##### **Year 5**

- Semester 1: Neuroanatomy and Pathology (BMS3976, 30 credits)
- Semester 2: Optional Module (30 credits)

## **Year 6**

- Semester 1: Clinical Neurology (BMS3496, 30 credits)
- Semester 2: Dissertation and Professional Development (BMS3506, 30 credits)

## **12.2 Levels and modules**

### **Level 4**

#### **Compulsory**

Students must take all of the following:

- BMS1494 Fundamental Neuroscience
- BMS1565 Laboratory and Professional Skills
- BIO1557 Cell Sciences and Genetics
- PSY1210 Psychological Science: From Biology to Individual Variation

#### **Optional**

N/A

#### **Progression requirements**

Students must pass at least 90 credits to progress to Level 5. To achieve Honours, failed credit will need to be repeated.

### **Level 5**

#### **Compulsory**

Students must take all of the following:

- BMS2586 Research Methods and Science Innovation
- BMS2415 Neuropharmacology
- BMS2955 Neurophysiology
- PSY2006 Brain, body and mind

#### **Optional**

N/A

#### **Progression requirements**

Students must have passed at least 210 credits to progress to Level 6. To achieve Honours, failed credit will need to be repeated.

### **Level 6**

#### **Compulsory**

Students must take all of the following:

- BMS3506 Dissertation and Professional Development
- BMS3496 Clinical Neurology
- BMS3976 Neuroanatomy and Pathology

#### **Optional\***

Students must also choose at least one from the following:

- BMS3314 - Clinical Diagnostics
- BMS3596 - Molecular and Cellular Pathology
- PSY3250 - Primatology
- PSY3240 - Evolutionary Approaches to Behaviour

### Progression requirements

N/A

\*Optional modules will only run if a minimum of 15 students. Please see text under programme structure diagram in Section 12.1 for optional module arrangements for the 2024/25 academic year.

### 12.3 Non-compensatable modules

Module level	Module code
4	None
5	None
6	BMS3506

### 13. Information about assessment regulations

This programme will run in line with general University Regulations:  
<https://www.mdx.ac.uk/about-us/policies>

### 14. Placement opportunities, requirements and support (if applicable)

Placements are not compulsory for this programme. Students voluntarily can contact MDXWorks to find a summer placement to obtain work related experience. A suitable placement is in an academic or a commercial research laboratory, a health service organisation or a charity related to neuroscience.

### 15. Future careers / progression

On graduation, you can either continue your studies at postgraduate level by taking a diploma, Master's degree or PhD or seek employment in a variety of careers.

A graduate can undertake further studies for a career in the NHS as a clinical scientist, healthcare scientist, physiotherapist, data analyst, nurse or a medical doctor. Fast-track training programmes are available for many NHS professions.

A career in education at a school, college or university is also an option. Other science related careers include research and development industry or academia, science communication, journalism or publishing, and scientific sales and marketing of diagnostic

equipment.

Examples of non-science related careers are market research or analysis, retail, or operation management and public or private administration.

#### 16. Particular support for learning

Specialist laboratory facilities are available on campus to enable students to learn about neuroscience and develop practical skills required to work as a neuroscientist.

Online support for all modules on the programme are available on our virtual environment called My Learning.

Learning resource facilities at the University include computing suites and internet access. Access to English Language and Learning Support, including Dyslexic support, are available on campus or online.

#### 17. HECos code(s)

100272

#### 18. Relevant QAA subject benchmark(s)

Biomedical Science and Biomedical Sciences (2023)

#### 19. Reference points

The following reference points were used in designing the programme.  
*QAA (2023) Subject Benchmark Statement Biomedical Science and Biomedical Sciences. QAA*

Internal Documentation:

Middlesex University *Middlesex University Regulations*. London, MU

Middlesex University *Learning and Quality Enhancement Handbook*. London, MU

Middlesex University *2031 Learning Framework*. London, MU

#### 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 they take 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.

## 21. Curriculum map for BSc (Hons) 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	Anatomy of the nervous system
A2	Normal and abnormal neuronal function
A3	The mind and its processes
A4	The principles of diagnosis and treatment of neurological disorders
A5	The importance of scientific research in the advancement of knowledge and to evidence-based practice
A6	The skills required to monitor and assess brain and nerve functions
A7	Neurophysiological techniques
A8	How the human body adapts or responds to environmental stressors
A9	The causes of and pathophysiology of diseases of various human systems and their treatment.
A10	Ethical issues related to clinical and research procedures
Skills	
B1	Solve neurophysiological problems
B2	Critically appraise and synthesise information to gain new insights into aspects of neuroscience
B3	Present information in the most effective format to communicate ideas clearly
B4	Design and carry out research project
B5	Perform a range of neurological investigative techniques in accordance with health and safety guidelines
B6	Demonstrate other employability skills, such as leadership, collaborative working, project management and IT skills

Programme outcomes															
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B6
Highest level achieved by all graduates															
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6



Module Title	Module Code by Level	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B6
Laboratory and Professional Skills	BMS1565					x					x			x		x	x
Cell Sciences & Genetics	BIO1557	x	x			x	x	x	x	x	x		x	x		x	
Fundamental Neuroscience	BMS1494	x	x			x	x						x	x			
Psychological Science: From Biology to Individual Variation	PSY1210			x		x	x							x		x	
Research Methods & Science Innovation	BMS2586	x			x							x	x	x	x	x	x
Neuropharmacology	BMS2415	x		x									x	x			
Neurophysiology	BMS2955	x		x		x	x	x				x	x	x		x	
Brain, Body and Mind	PSY2006		x	x		x	x						x	x		x	
Dissertation and Professional Development	BMS3506				x		x				x	x	x	x	x		x
Neuroanatomy and Pathology	BMS3976	x	x	x		x	x	x				x		x		x	
Clinical Neurology	BMS3496	x		x			x		x	x		x	x	x		x	
Molecular and Cellular Pathology	BMS3596					x				x							
Clinical Diagnostics	BMS3314					x			x	x		x				x	
Evolutionary Approaches to Behaviour	PSY3240		x				x		x				x	x			
Primatology	PSY3250		x				x						x	x			