

## Programme Specification

### BSc Healthcare Science (Cardiac Physiology)

<b>1. Programme title</b>	BSc (Hons) Healthcare Science
<b>2. Awarding institution</b>	Middlesex University
<b>3. Teaching institution</b>	Middlesex University
<b>4. Programme accredited by</b>	
<b>5. Final qualification</b>	BSc (Hons) Healthcare Science (Cardiac Physiology)
<b>6. Year of validation</b>	
<b>Year of amendment</b>	
<b>7. Language of study</b>	English
<b>8. Mode of study</b>	Full-time and Part-time

#### 9. Criteria for admission to the programme

Candidates normally require Maths and English equivalent to at least GCSE grade C or an IELTS score band 7 as plus one of the following awards or equivalent

- A-levels (including two A2s with at least one science subject, preferably in biology or chemistry at grade C or better)
- Or Two AVCEs or one double award in Science
- Or EDEXCEL National Diploma or Certificate in biology, chemistry, forensic science, laboratory and industrial science, or medical science
- Or high school equivalent, such as an International Baccalaureate
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Applicants can make a claim for entry onto the programme with or without advance standing on the basis of either accreditation of prior certified learning or experiential learning.

CRB and health clearances are also required, which must be achieved before the start of the placement. Students do not pay for the CRB and health checks. Students, who do not get either a CRB or health clearance, will be allowed to transfer to another degree, e.g. biomedical science.

#### 10. Aims of the programme

The programme aims:

- To help the student to develop the knowledge, skills, attitude and ethical values required to provide patient-centred care and work safely and effectively in the NHS as a healthcare professional.
- To apply scientific principles and theories underpinning healthcare science to patient care.
- To carry out competently diagnostic and therapeutic investigations relevant to the role of a Healthcare Science Practitioner.
- To apply scientific methods and approaches to research, development and innovation in healthcare science.
- To develop a range of transferable academic skills required for effective life-long learning, communication, team working and leadership.

## 11. Programme outcomes

### A. Knowledge and understanding

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

1. Knowledge, skills and attitude required to work as a healthcare practitioner
2. Normal and abnormal human physiology
3. The principles of diagnosis and management of human disease
4. The sciences underpinning quality healthcare
5. The importance of scientific research in the advancement of healthcare practice
6. The role and skills required by the practitioner in the delivery and monitoring of diagnostic and therapeutic investigations
7. The role of and skills required by the practitioner for service improvement

### Teaching/learning methods

Students gain knowledge and understanding through lectures, seminars, laboratory classes, peer presentations, debates, placements in clinical physiology departments, designing and undertaking a research project, role-play and practical clinical sessions.

### Assessment Method

Students' knowledge and understanding is assessed by summative and formative assessment, including peer presentations, laboratory reports, objective-structured practical examinations, online quizzes, and unseen theory examinations and assessment of clinical practice.

### B. Cognitive (thinking) skills

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

1. Critically evaluate research evidence in the context of current theory or practice;
2. Solve clinical problems;
3. Appraise and synthesise information to gain new insights into aspects of

### Teaching/learning methods

Students learn cognitive skills through lectures, seminars, discussions, peer presentations, a research project and debates, placements, practical clinical sessions.

### Assessment Method

Students' cognitive skills are assessed by

<p>current practice;</p> <p>4. Reflect on own learning and practice to develop personally and professionally.</p>	<p>formative and summative assessment as written work, examinations, online quizzes, case studies, assessment of clinical practice and peer presentation</p>
<p><b>C. Practical skills</b></p> <p>On completion of the programme the successful student will be able to:</p> <ol style="list-style-type: none"> <li>1. Present information in the most effective format to communicate ideas clearly;</li> <li>2. Design and carry out a research project or clinical audit;</li> <li>3. Perform a wide range of investigative techniques in accordance with health and safety guidelines.</li> <li>4. Work within scope of practice and professional codes of conduct</li> </ol>	<p><b>Teaching/learning methods</b></p> <p>Students learn practical skills through laboratory classes, clinical skills sessions, placements, and by undertaking a research project.</p> <p><b>Assessment Method</b></p> <p>Students' practical skills are assessed formatively and summatively through written work, case presentations, laboratory reports, online quizzes, and in objective structured practical examinations, and assessment of clinical practice.</p>
<p><b>D. Graduate Skills</b></p> <p>On completion of this programme the successful student will be able to:</p> <ol style="list-style-type: none"> <li>1. Communicate their ideas effectively to patients, relatives, carers and colleagues using a variety of media</li> <li>2. Work both collaboratively and with an appreciation of skills required for leadership</li> <li>3. Demonstrate an autonomous and reflective approach to lifelong learning</li> <li>4. Formulate learning and career development plans</li> <li>5. Use a range of information technologies</li> <li>6. Demonstrate a high level of numeracy and problem-solving skills</li> </ol>	<p><b>Teaching/learning methods</b></p> <p>Students acquire graduate skills through reading, group work, problem-based learning exercises, structured and directed learning, analysis of case studies, and through reflection, placement and development of portfolio material</p> <p><b>Assessment method</b></p> <p>Students' graduate skills are assessed formatively and summatively using written work in the form of portfolios, and also in case studies, presentations, project and research work, and online examinations</p>

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

### 12. 1 Overall structure of the programme

Students, who pass all modules, can exit after year 1 with a CertHE or after year 2 with a DipHE in Healthcare Science

BSc(Hons) Healthcare Science (Cardiac Physiology)

#### Year 1

BMS1234 Professional Practice (30 Credits)	BMS1454 Healthcare Science 1 (30 Credits)	BMS1614 Healthcare Science 2 (15 Credits)	BMS1804 Introduction to Physiological Sciences 1 (15 Credits)	BMS1884 Introduction to Physiological Sciences 2 (30 Credits)
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#### Year 2

BMS2015 Research Methods and Professional Practice (30 Credits)	BMS2625 Medical Instrumentation and Imaging (15 Credits)	BMS2445 Cardiovascular & Respiratory Conditions (30 credits)	BMS2885 Cardiovascular Science (45 Credits)
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#### Year 3

BMS3236 Professional Practice (30 credits)	BMS3336 Dissertation (30 credits)	BMS3816 Applied Cardiovascular Science 1 (30 Credits)	BMS3846 Applied Cardiovascular Science 2 (30 Credits)
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**12.2 Levels and modules**

## Level 4

## COMPULSORY

## OPTIONAL

PROGRESSION  
REQUIREMENTSStudents must take all of  
the following:There are no optional  
modules.

All modules must be passed.

BMS1234

BMS1454

BMS1614

BMS1804

BMS1884

## Level 5

## COMPULSORY

## OPTIONAL

PROGRESSION  
REQUIREMENTSStudents must take all of  
the following:There are no optional  
modules.

All modules must be passed.

BMS2015

BMS2625

BMS2445

BMS2885

## Level 6

## COMPULSORY

## OPTIONAL

PROGRESSION  
REQUIREMENTSStudents must take all of  
the following:There are no optional  
modules.

All modules must be passed.

BMS3236

BMS3336

BMS3816

BMS3846

### **12.3 Non-compensatable modules (note statement in 12.2 regarding FHEQ levels)**

<b>Module level</b>	<b>Module code</b>
4-6	All modules

### **13. A curriculum map relating learning outcomes to modules**

See Curriculum Map attached.

### **14. Information about assessment regulations**

- The assessment regulations are the general university regulations.
- All modules of the programme and module assessment components must be passed either by assessment or pre-accreditation.
- Aegrotat degree could be offered in Healthcare Science without a specialism in the title of the award.

### **15. Placement opportunities, requirements and support**

Placements are an integral part of the programme. Over the three years, students will spend a total 50 weeks in NHS clinical physiology departments in London or the South East: 10 weeks in year 1, 15 weeks in year 2 and 25 weeks in year 3. . Placements will be Monday to Friday, usually 09:00 to 17:00hrs.

Students are only placed in University approved learning environments. Placement Tutors & the Placement Officer, in collaboration with placement providers, will ensure that learning opportunities and support will be available in the placement area to help students meet the module learning outcomes and complete the Practitioner Training Programme (PTP) training manual.

Both parties will also ensure that a robust quality monitoring processes will be in place and establish clear lines of communications.

Prior to going on placement, students are required to get both Disclosure and Barring Service (DBS) and Occupational Health(OH) clearances. Students, who do not get either a DBS or OH clearance, may have to transfer to another programme at the University.. Placement is unpaid unless the student is being sponsored by a Trust. Students cannot claim daily travel expenses whilst on placement, unless they are travelling beyond TfL Travel Zone 9

Students are notified in advanced of their placement allocation and contact details of placement staff. Students are also required to attend placement Monday to Friday during normal working hours. Their duty rota may include Bank Holidays.

At the start of each placement, students will receive an induction and support and guidance will be provided for students with diverse needs.

Each placement area is assigned a Placement Tutor and given a copy of the placement handbook, which outlines for example lines of communication, contact details of key academic staff, attendance policy and complaint procedures. Practice learning is assessed using the training manual and written assignments.

In the final year, students have an opportunity to undertake a research project. As per Academy for Healthcare Science (AHCS) rules, data cannot be collected whilst students are on placement, so research projects will be either a literary review or a clinical audit.

**16. Future careers (if applicable)**

On completion of the programme, graduates could apply for band 5 physiological science posts in the NHS. Suitably qualified graduates can study to become physiological scientists, working in the NHS at Band 7 or higher. They would need to get onto a NHS Scientist Training Programme (STP). For STP training places, a 2:1 in a relevant science degree is the minimum required.

**17. Particular support for learning (if applicable)**

Specialist laboratory facilities available on site to learn and develop practical skills  
 Online support for all modules in the programme available on My Learning  
 Learning resource facilities at the University including computing suites and internet access  
 Access to English Language and Learning Support on campus  
 Dyslexic support

**18. JACS code (or other relevant coding system)**

B 702

Cardiac Physiology 144B91F

**19. Relevant QAA subject benchmark group(s)**

N/A

**20. Reference points**

The following reference points were used in designing the Programme:

**Internal documentation:**

- Middlesex University (2006) *Learning Framework Document*
- Middlesex University (2013) *Middlesex University Regulations*. MU
- Middlesex University (2013) *CLQE Handbook*. MU

**External Documentation:**

1. Quality Assurance Agency (2001) *The QAA Framework for framework for higher education qualifications in England, Wales and Northern Ireland*. QAA
2. Quality Assurance Agency (2007) *Code of practice for the assurance of academic quality and standards in higher education - Section 9: Work-based and placement learning*. QAA
3. Department of Health (DH) (2010) *Modernising Scientific Careers Programme BSc (Hons) in Healthcare Science, Cardiovascular, Respiratory and Sleep Sciences (Physiological Sciences), Learning Outcomes and Indicative Content 2010/11*. DH
4. Department of Health (DH) (2010) *BSc (Hons) Healthcare Physiological Sciences: Cardiovascular, Respiratory and Sleep Sciences 2010/11 draft training manual*. DH

## **21. 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



## Appendix 2

Curriculum map for BSc (Hons) Medical Physiology (Cardiovascular Science & BSc (Hons) Medical Physiology (Neuroscience)

### Curriculum map for *BSc(Hons) Medical Physiology (Cardiovascular Science)*

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		Practical skills	
A1	Knowledge, skills and attitude required to work as a healthcare science practitioner	C1	Present information in the most effective format to communicate ideas clearly
A2	Normal and abnormal human anatomy and physiology	C2	Design a research project or clinical audit
A3	The principles of diagnosis and management of human disease	C3	Perform a wide range of investigative techniques in accordance with health and safety guidelines
A4	The sciences underpinning quality healthcare	C4	Work within scope of practice and professional codes of conduct
A5	The importance of scientific research in the advancement of healthcare practice		
A6	The role and skills required of the practitioner in the delivery and monitoring of diagnostic and therapeutic investigations		
A7	The role of and skills required by the practitioner for service improvement		
Cognitive skills		Graduate Skills	
B1	Critically evaluate research evidence in the context of current theory or practice	D1	Communicate their ideas effectively to patients, relatives, carers and colleagues using a variety of media
B2	Solve clinical problems	D2	Work both collaboratively and with an appreciation of skills required for leadership
B3	Appraise and synthesise information to gain new insights into aspects of current practice	D3	Demonstrate an autonomous and reflective approach to lifelong learning
B4	Reflect on own learning and practice to develop personally and professionally	D4	Formulate learning and career development plans
		D5	Use a range of information technologies
		D6	Demonstrate a high level of numeracy and problem-solving skills

# BSc(Hons) Healthcare Science (Cardiac Physiology)

Programme outcomes																												
A 1	A 2	A 3	A 4	A 5	A 6	A 7		B 1	B 2	B 3	B 4		C 1	C 2	C 3	C 4		D 1	D 2	D 3	D 4	D 5	D 6					
Highest level achieved by all graduates																												
6	6	6	6	6	6	6		6	6	6	6		6	6	6			6	6	6	6	6	6					



