

# Programme Specification



## BSc Healthcare Science (Cardiac Physiology)

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.

<b>1. Programme title</b>	BSc (Hons) Healthcare Science (Cardiac Physiology)
<b>2. Awarding institution</b>	Middlesex University
<b>3. Teaching institution</b>	Middlesex University
<b>4. Programme accredited by</b>	National School of Healthcare Science
<b>5. Final qualification</b>	BSc (Hons) Healthcare Science (Cardiac Physiology)
<b>6. Academic year</b>	2018/2019
<b>7. Language of study</b>	English
<b>8. Mode of study</b>	Apprenticeship Route

### 9. Criteria for admission to the programme

Candidates normally require Mathematics and English equivalent to at least GCSE grade C plus one of the following awards or equivalent at 112 UCAS tariff points.

- 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.

All apprentices for this programme must have the right to live and work in the UK.

## 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

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. Personal Professional Development Standard);
2. Normal and abnormal human physiology;
3. The principles of diagnosis and management of human disease;
4. The sciences and processes underpinning quality healthcare (4. Quality and Audit/Service Improvement Standard);
5. The importance of scientific research and innovation in the advancement of healthcare practice (8. Research and Innovation Standard);
6. The role and skills required by the practitioner in the delivery and monitoring of diagnostic and therapeutic investigations (5. Technical Scientific Services Standard);
7. The role of and skills required by the practitioner for service improvement (Audit/Service Improvement Standard).
8. How to provide person-centred care (1. Person-centred Care and Professional Practice Standard).
9. The responsibilities and skills required to provide a safe clinical environment for both staff and patients. (3. Health, Safety and Security and 6. Clinical Care Standard).
10. Role of a leader in the clinical setting and concepts applied to clinical leadership (9. Leadership Standard)

### 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, portfolio and assessment of clinical practice, and the End-point Assessment.

**B. 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 current practice;
4. Reflect on own learning and practice to develop personally and professionally.
5. Present information in the most effective format to communicate ideas clearly;
6. Design and carry out a research project or clinical audit;
7. Perform a wide range of investigative techniques in accordance with health and safety guidelines and the Good Scientific Practice;
8. Work within scope of practice and professional codes of conduct;
9. Communicate their ideas effectively to patients, relatives, carers and colleagues using a variety of media;
10. Work both collaboratively and with an appreciation of skills required for leadership;
11. Demonstrate an autonomous and reflective approach to lifelong learning;
12. Formulate learning and career development plans;
13. Use a range of information technologies;
14. Demonstrate a high level of numeracy and problem-solving skills.

**Teaching/learning methods**

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

**Assessment Method**

Students' cognitive skills are assessed by formative and summative assessment as written work, examinations, online quizzes, case studies, assessment of clinical practice and peer presentation and in objective structured practical examinations.

## 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

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

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

<b>BMS3236</b>  Professional Practice (Include the EPA)  (30 credits)	<b>BMS3336</b>  Dissertation  (30 credits)	<b>BMS3816</b>  Applied Cardiovascular Science 1  (30 Credits)	<b>BMS3846</b>  Applied Cardiovascular Science 2  (30 Credits)
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<b>12.2 Levels and modules</b>		
Level 4		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following:  BMS1234  BMS1454  BMS1614  BMS1804  BMS1884	There are no optional modules.	All modules must be passed.
Level 5		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following:  BMS2015  BMS2625  BMS2445  BMS2885	There are no optional modules.	All modules must be passed.
Level 6		
COMPULSORY	OPTIONAL	COMPLETION REQUIREMENTS
Students must take all of the following:  BMS3236  BMS3336  BMS3816  BMS3846	There are no optional modules.	All modules must be passed and the End-Point Assessment.

**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.
- Before the student can progress onto the End-point Assessment, they must meet the following Gateway criteria:
  - Completion of the Professional Practice Portfolio
  - Level 2 English and Mathematics must be achieved
- Aegrotat degree could be offered in Healthcare Science without a specialism in the title of the award.

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

Apprentices will be employed as Cardiac Physiology Degree Apprentices for the duration of the programme.

**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)****From Middlesex University**

Academic Advisor

Use of MyLearning and other on-line technologies for directed learning activities

Clinical Skills Laboratory

Middlesex University Libraries

Academic and Learning Support Services

Disability and Dyslexia Support

**From the workplace**

Named mentor who plans learning, reviews progress and professional learning

<b>18. JACS code (or other relevant coding system)</b>	B 702 Cardiac Physiology 144B91F
<b>19. Relevant QAA subject benchmark group(s)</b>	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
5. Degree Apprenticeship Standard for Healthcare Science Practitioner (Level 6): <https://haso.skillsforhealth.org.uk/wp-content/uploads/2017/04/L6-Healthcare-Science-Practitioner-Standard.pdf>
6. Degree Apprenticeship Standard for Healthcare Science Practitioner (Level 6) End-point Assessment: <https://haso.skillsforhealth.org.uk/wp-content/uploads/2017/04/L6-Healthcare-Science-Practitioner-Assessment-Plan.pdf>

## 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 Healthcare Science (Cardiac Physiology)*

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		Skills	
A1	Knowledge, skills and attitude required to work as a healthcare science practitioner	B1	Critically evaluate research evidence in the context of current theory or practice
A2	Normal and abnormal human anatomy and physiology	B2	Solve clinical problems
A3	The principles of diagnosis and management of human disease	B3	Appraise and synthesise information to gain new insights into aspects of current practice
A4	The sciences underpinning quality healthcare	B4	Reflect on own learning and practice to develop personally and professionally
A5	The importance of scientific research in the advancement of healthcare practice	B5	Present information in the most effective format to communicate ideas clearly
A6	The role and skills required of the practitioner in the delivery and monitoring of diagnostic and therapeutic investigations	B6	Design a research project or clinical audit
A7	The role of and skills required by the practitioner for service improvement	B7	Perform a wide range of investigative techniques in accordance with health and safety guidelines and Good Scientific Practice
A8	How to provide person-centred care	B8	Work within scope of practice and professional codes of conduct
A9	The responsibilities and skills required to provide a safe clinical environment for both staff and patients	B9	Communicate their ideas effectively to patients, relatives, carers and colleagues using a variety of media
A10	Role of a leader in the clinical setting and concepts applied to clinical leadership	B10	Work both collaboratively and with an appreciation of skills required for leadership
		B11	Demonstrate an autonomous and reflective approach to lifelong learning
		B12	Formulate learning and career development plans
		B13	Use a range of information technologies
		B14	Demonstrate a high level of numeracy and problem-solving skills







