

## Overview

<b>Programme Code</b>	35986
<b>Programme Title</b>	Health Care Science Practitioner (Biomedical Science)
<b>Awarding Institution</b>	Liverpool John Moores University
<b>Programme Type</b>	Apprenticeship
<b>Language of Programme</b>	All LJMU programmes are delivered and assessed in English
<b>Programme Leader</b>	Joanne Foulkes
<b>Link Tutor(s)</b>	

## Awards

<b>Award Type</b>	<b>Award Description</b>	<b>Award Learning Outcomes</b>
Target Award	Bachelor of Science with Honours - BSH	See Learning Outcomes Below
Alternative Exit	Certificate of Higher Education - CHE	Apply a broad knowledge base, incorporating theoretical concepts and employing a wide range of specialised skills to real and theoretical biomedical applications. Evaluate information using it to plan and develop investigative strategies and to determine solutions to a wide range of scientific problems. Operate in a range of science contexts, and take responsibility for their contributions and outputs. Apply a broad knowledge base, incorporating theoretical concepts and employing a wide range of specialised skills to real and theoretical biomedical applications. Evaluate information using it to plan and develop investigative strategies and to determine solutions to a wide range of scientific problems. Operate in a range of science contexts, and take responsibility for their contributions and outputs.
Alternative Exit	Diploma of Higher Education - DHE	Generate ideas through the analysis of concepts at an abstract level, with a command of highly specialised skills and the formulation of responses to concrete and abstract problems. Accept responsibility for group and personal work. Analyse and evaluate information, demonstrating significant judgement across a broad range of biomedical related areas.

<b>Alternate Award Names</b>	
------------------------------	--

## External Benchmarks

<b>Subject Benchmark Statement</b>	UG-Biomedical science (2019)
------------------------------------	------------------------------

## Apprenticeship Standard

<b>Apprenticeship Standard</b>	<b>End Point Assessment</b>	<b>Proposed Off the Job Training delivery</b>
Healthcare science practitioner (integrated degree) - ST0413	Integrated	

## Accreditation

### Programme Accredited by

<b>PSRB Name</b>	<b>Type of Accreditation</b>	<b>Valid From Date</b>	<b>Valid To Date</b>	<b>Additional Notes</b>
Health and Care Professions Council, the (HCPC)	Approved by the Health and Care Professions Council (HCPC) for the purpose of providing eligibility to apply for registration with the HCPC as a biomedical scientist.			
Institute of Biomedical Science (IBMS)	Accredited by the Institute of Biomedical Science (IBMS).			

## Programme Offering(s)

<b>Mode of Study, Mode of Delivery</b>	<b>Intake Month</b>	<b>Teaching Institution</b>	<b>Programme Length</b>
Part-Time, Face to Face	September	LJMU Taught	5 Years

## Aims and Outcomes

### Educational Aims of the Programme

All programmes within the School of Pharmacy and Biomolecular Sciences aim to provide graduates with a wide knowledge and understanding of core subject matter. The Health Care Science Practitioner programme aims to provide graduates with an understanding of laboratory-based investigation of human health and disease. This programme fulfils the requirements for a Degree Apprenticeship. The programme aims to: introduce students to the hospital environment in order to help them make informed choices about the direction of their education and training in Biomedical Science; introduce the concepts of professional autonomy and accountability; develop the skills required for the application of practice as a Biomedical Scientist and to enable registration with the HCPC; develop study, information technology (IT), and communication skills to enable graduates to participate in lifelong learning; develop skills in independent research to enable graduates to undertake postgraduate study; encourage students to engage with the development of employability skills.

### Learning Outcomes

Code	Description
PLO1	Appreciate fundamental concepts and principles of biological sciences that underpin biomedical science, biochemistry, cell and tissue biology, genetics, microbiology, molecular biology, physiology.
PLO2	Conduct appropriate diagnostic and monitoring procedures safely and skilfully.
PLO3	Prepare laboratory reports.
PLO4	Use laboratory equipment and reagents to prepare data.
PLO5	Analyse and interpret laboratory data relevant to the specialist subjects of cellular pathology, clinical biochemistry, clinical immunology, medical microbiology, haematology and transfusion science.
PLO6	Practice within the legal and ethical boundaries of the profession.
PLO7	Collect, record and interpret numerical data.
PLO8	Communicate effectively by discussions, written materials, use of images and presentations.
PLO9	Use information technology to prepare, process and present information.
PLO10	Identify targets and follow schedules to meet targets.
PLO11	Identify and work to collective goals and responsibilities.
PLO12	Understand that biomedical science is the integrated study of a range of human disorders and disease processes together with their laboratory investigation.
PLO13	Audit, reflect on and review practice.
PLO14	Recognise the importance of the theoretical basis of research in biomedical science
PLO15	Engage with the essential facts, concepts, and principles relevant to biomedical science specialist subjects of cellular pathology, clinical biochemistry, clinical immunology, medical microbiology, haematology and transfusion science.
PLO16	Critically evaluate information and data from a variety of sources.

<b>Code</b>	<b>Description</b>
PLO17	Apply planning, research methodology and analytical skills to the in-depth study of a topic in a chosen field of study.
PLO18	Apply problem-solving skills to the laboratory investigation of human health and disease.
PLO19	Apply strategies for the critical appraisal of laboratory methods.
PLO20	Plan and execute laboratory experiments with an awareness of good laboratory practice (GLP) and COSHH assessment.

## Programme Structure

### Programme Structure Description

Apprentices will enrol at level 4 and funding will normally come from their employer. Apprentices will study alongside full time students on Biomedical Science and Applied Biomedical Science and they take most of the modules but not necessarily in the same order. The one module that differs from the Applied Biomedical Science route is the level 6 Hospital Practice module, 6100HCSEPA. For the apprentices, this module includes the apprenticeship end-point assessment (EPA). In order to ensure that students have appropriate underpinning for the route they take the Programme Leader oversees all students and checks for completion of appropriate modules at a lower level before any given module is attempted.

Apprentices all need to complete mandatory training in Safeguarding, British Values and Prevent before they can undertake the End Point Assessment. Generic, mandatory online training programmes will offered to apprentices and this may be supplemented by additional training that is specific to the programme.

Programme Structure - 360 credit points	
Level 4 - 120 credit points	
Level 4 Core - 120 credit points	CORE
[MODULE] 4101BMBMOL Biomedical Skills Approved 2022.01 - 20 credit points	
[MODULE] 4102BMBMOL Cell Biology Approved 2022.02 - 20 credit points	
[MODULE] 4103BMBMOL Principles of Biochemistry Approved 2022.02 - 20 credit points	
[MODULE] 4104BMBMOL Introduction to Biomedical Science Approved 2022.01 - 20 credit points	
[MODULE] 4105BMBMOL Anatomy, Physiology and Genetics Approved 2022.01 - 20 credit points	
[MODULE] 4106BMBMOL Microbiology Approved 2022.01 - 20 credit points	
Level 5 - 120 credit points	
Level 5 Core - 120 credit points	CORE
[MODULE] 5101BMBMOL Biomedical Research Methods Approved 2022.03 - 20 credit points	
[MODULE] 5102BMBMOL Clinical Biochemistry Approved 2022.01 - 20 credit points	
[MODULE] 5103BMBMOL Immunology and Infection Approved 2022.03 - 20 credit points	
[MODULE] 5105BMBMOL Histology and Physiology Approved 2022.01 - 20 credit points	
[MODULE] 5106BMBMOL Blood Cell Science Approved 2022.01 - 20 credit points	
[MODULE] 5107BMBMOL Hospital Practice 1 Approved 2022.01 - 20 credit points	
Level 6 - 120 credit points	
Level 6 Core - 120 credit points	CORE
[MODULE] 6100GNBMOL Research Project Approved 2022.01 - 40 credit points	
[MODULE] 6100HCSEPA Hospital Practice 2 Approved 2022.01 - 20 credit points	
[MODULE] 6101BMBMOL Study of Disease 1 Approved 2022.01 - 20 credit points	
[MODULE] 6102BMBMOL Study of Disease 2 Approved 2022.02 - 20 credit points	
[MODULE] 6103BMBMOL Study of Disease 3 Approved 2022.01 - 20 credit points	

Module specifications may be accessed at <https://proformas.ljmu.ac.uk/Default.aspx>

## Teaching, Learning and Assessment

Lead lectures, tutorials, seminars, laboratory sessions, work-based learning (portfolio), workshops, poster sessions, case studies, literature analysis, problem solving, data analysis and self directed study. Coursework (essays, reports, reviews) examinations (essay style, MCQ and short answer, problem solving, data analysis) and poster presentations. Portfolio-based exercises. Lead lectures, tutorials, case studies, laboratory practical classes, research based teaching materials and methods, literature reviews, seminars. Written examinations, laboratory reports, research project reports, literature review manuscripts, seminars and case study reports. Practical laboratory classes, work placements in clinical laboratories, data handling workshops, problem-based learning, seminars and lectures Practical reports, portfolios, case study reports, project reports and written exams. Transferable/key skills are embedded in modules within the programme. Examples include the use of spreadsheet and computer packages to analyse data, seminars, oral presentations, reflective portfolios and research projects. Practical computer based exams on the use of IT, group seminars, oral presentations, project reports and portfolios.

## Opportunities for work related learning

Apprentices will be working in an accredited laboratory and completing work-based learning throughout their studies. Students will be completing their portfolio of competence whilst studying, and will formally be assessed in the modules 5107BMBMOL and 6100HCSEPA alongside full time students on Applied Biomedical Science. 5107BMBMOL addresses the concepts of professional autonomy and accountability as well as enabling the students to develop the skills required for the application of practice in the work place. 6100HCSEPA completes their professional portfolio and prepares students for the End Point Assessment (EPA). Prior to completion of the programme, students will be required to undertake an EPA which requires apprentices to apply the learning and skills developed during the apprenticeship. The EPA will consist of three elements which will be assessed by an independent assessor. The three elements will be a Readiness for Practice situational judgement test, a Professional Discussion based on the apprentice's portfolio or record of evidence and a Presentation and Review of the apprentice's research project. All three elements will be assessed in 6100HCSEPA. Students who successfully complete these two modules are eligible to apply for HCPC registration when they achieve their Honours degree.

## Entry Requirements

Type	Description
A levels	Applicants should have (or expect to obtain) at least 2 'A2' levels or equivalent, including Biology and/or Chemistry with a minimum of 112 points.
Alternative qualifications considered	Non standard entrants may be interviewed. Declaration of disclosure of any criminal convictions including those outstanding is required. Occupational Health screening and vaccinations as necessary. In common with standard University policy, applicants should have GCSE passes in Mathematics and English with a minimum grade C, or equivalent. Students on this degree apprenticeship programme need to be employed as a degree apprentice by a suitable employer. For further information see <a href="https://www.ljmu.ac.uk/study/degree-apprenticeships/learners/become-a-degree-apprentice">https://www.ljmu.ac.uk/study/degree-apprenticeships/learners/become-a-degree-apprentice</a>
BTECs	For entry this provision depends on the modules the student has successfully completed and the level at which each module was passed. Three level III units, passed with DMM will normally be required.
Other international requirements	A wide variety of qualifications may be acceptable provided that they equate to UK requirements. An IELTS score of 6.0 (5.5 in each element) is a requirement.

International Baccalaureate	Applicants must have (or expect to obtain) the full award including grade 5 in an appropriate science.
-----------------------------	--

<b>Extra Entry Requirements</b>
---------------------------------