LIVERPOOL JOHN MOORES UNIVERSITY

Biomedical Sciences

Programme Information

2022.01, Approved

Overview

Programme Code	36228
Programme Title	Biomedical Sciences
Awarding Institution	Liverpool John Moores University
Programme Type	Masters

Awards

Award Type	Award Description	Award Learning Outcomes
Target Award	Master of Science - MS	N/A
Alternative Exit	Postgraduate Diploma - PD	Demonstrate an enhanced level of understanding of practical and theoretical aspects of biomedical sciences. Demonstrate a range of key skills including: communication skills; critical analysis; data analysis/interpretation; teamwork. Demonstrate a clear understanding of the current research methodologies and themes within biomedical sciences.

Alternate Award Names	

External Benchmarks

Subject Benchmark Statement	

Programme Offering(s)

Mode of Study, Mode of Delivery	Intake Month	Teaching Institution	Programme Length Programme Length Unit
Part-Time, Distance Learning	September	LJMU Taught	1 Year

Aims and Outcomes

Educational Aims of the Programme	1. To provide students with specialist knowledge in areas of biomedical sciences, including medical genetics, cell technologies, diagnostics and therapeutics, and personalised medicine through a range of teaching and learning activities. 2. To enhance students' understanding of the instrumentation and their applications used in the field of biomedical sciences through theoretical lectures, practicals and workshops. 3. To provide students with opportunities to undertake independent research in an industrial/academic setting, so as to develop their research skills, laboratory/analytical skills and risk assessment. 4. To develop the students transferable employability skills including; written and verbal communication, IT, problem-solving.

Learning Outcomes

Code	Number	Description
PLO1	1	Demonstrate an advanced level of knowledge and understanding of concepts, principles and theories relevant to biomedical sciences.
PLO2	2	Apply appropriate techniques to the execution of a biomedical sciences research project.
PLO3	3	Employ a range bioinformatics databases to analyse, extract and process information.
PLO4	4	Provide oral and written technical presentations using a range of computational tools and packages.
PLO5	5	Convey findings to specialist and non-specialist audiences.
PLO6	6	Communicate effectively using a range of media.
PLO7	7	Demonstrate competency in the use of information technology to analyse, process, retrieve, prepare and present information.
PLO8	8	Demonstrate initiative and ability to work independently and as part of a team.
PLO9	9	Develop the organisational skills to manage resources and time.
PLO10	10	Learn to work under pressure, to deadlines and to make important decisions in an industrial/academic research setting.
PLO11	11	Develop relevant practical and analytical techniques applicable to the biomedical sciences.
PLO12	12	Develop knowledge and understanding of the academic research environment within the broad field of biomedical sciences.
PLO13	13	Critically evaluate information and data from a variety of sources.
PLO14	14	Demonstrate originality in tackling and solving problems.
PLO15	15	Draw sound conclusions from information/data and communicate their findings clearly.

PLO16	16	Plan, develop and implement appropriate research methodologies.
PLO17	17	Critically evaluate experimental design.
PLO18	18	Plan, conduct, evaluate and report the results of a scientific research project.

Course Structure

Programme Structure Description	The taught component of the programme covers a period of eight months (September - April) and the research project four months (May - August). Three 20 credit modules are assessed by a combination of continuously assessed coursework and written examination. Three 20 credit modules are continuously assessed using a range of assessment methods. All modules are core. 180 core credits at Level 7 required for Award of Master of Science.

Programme Structure - 180 credit points	
Level 7 - 180 credit points	
Level 7 Core - 180 credit points	CORE
[MODULE] 7102BSBMOL Medical Genetics Approved 2022.01 - 20 credit points	
[MODULE] 7103BTBMOL Advanced Biotechniques Approved 2022.01 - 20 credit points	
[MODULE] 7104BTBMOL Cell Technology Approved 2022.01 - 20 credit points	
[MODULE] 7105BSBMOL Diagnostics and Therapeutics Approved 2022.01 - 20 credit points	
[MODULE] 7106BSBMOL Current Issues in Biomedical Sciences Approved 2022.01 - 20 credit points	
[MODULE] 7106BTBMOL Biomolecular Research Skills and Data Analysis Approved 2022.01 - 20 credit points	
[MODULE] 7107BSBMOL Research Project Approved 2022.01 - 60 credit points	

Teaching, Learning and Assessment

Teaching, Learning and Assessment	Knowledge acquisition will be achieved through a combination of interactive lectures, seminars, workshops and practicals. Understanding is facilitated through workshops, tutorials, group work and independent study. Practical skills are developed by wet and dry practical activities, demonstrations, project work and seminars (external/internal speakers). The four month research project/placement serves to develop knowledge and understanding of concepts and theories applicable to the broad area of biomedical sciences. Knowledge and understanding are assessed through a combination of examination papers and coursework in the form of laboratory reports, oral presentations, research grant proposal, problem solving exercises, and project thesis. Intellectual skills are developed through the teaching and learning programme. Critical analysis and problem solving skills are embedded in all modules and are taught, developed and practised through workshops, tutorials (small group),formative assessment exercises and all forms of project work. Experimental, research and design skills are further developed and practised through a broad range of coursework activities, laboratory work and all project work. Individual feedback is given on all work submitted. Critical thinking and problem solving skills are normally assessed by examination and project report/laboratory report/literature review. Experimental research and design skills are assessed by portfolio, oral presentations, group report and practical report write-up. Professional practical skills are taught and developed through the programme's experimental components which include practical sessions, mini-project work and research project. Experimental design is taught in the Research Methods module via lectures and workshops. Professional practical skills are assessed in the project thesis, mini-project, paper preparation, portfolio and practical report write-up. Transferable and key skills are taught, developed and practised throughout the teaching and learning programme. Specialist mathematical skills are taught on specific modules, more basic skills are normally practised on all modules. Transferrable and key skills are assessed primarily through written examination and coursework including reports, essays and oral presentations.

Opportunities for work related learning

Opportunities for work related learning
The programme offers a four month work related learning research project (7107BSBMOL). Students will be offered a research project in biomedical sciences. The work may be undertaken in University premises or a large/SME organisation. All work offers students the opportunity to develop their critical reasoning and complex problem solving skills. Emphasis is also focused on the acquisition of new knowledge and skills that would secure future employment within the biomedical sciences and related sectors. Guest speakers from industry will contribute lectures on the programme and give an employer's perspective.

Entry Requirements

Type	Description
Other international requirements	An international qualification that equates to UK requirements. International students must also have an English language qualification equivalent to at least IELTS 6.5 (a minimum of 6.0 is required in all components) as recognized by LJMU. Satisfactory references will also be required.

Programme Contacts

Programme Leader

Contact Name
Darren Sexton

Link Tutor

Contact Name