

Overview

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| Programme Code | 36229 |
| 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. |

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| Alternate Award Names | |
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External Benchmarks

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| Subject Benchmark Statement | |
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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 | 2 Year |

Aims and Outcomes

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| Educational Aims of the Programme | <p>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.</p> |
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Learning Outcomes

| Code | Number | Description |
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| 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. |

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| 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

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| Programme Structure Description | <p>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. This part-time study route is offered and will be delivered across 2 years. Students on the part-time route would take modules at the same time as full time students (36228). A flexible approach to module selection across year 1 and 2 of the PT route will be adopted depending on a student's circumstances. However, Research Methods would be mandatory for year 1 of study, it would be strongly recommended that Biotechnology Principles and Applications is also taken in year 1 and the Research Project would be taken in year 2. For example a typical part time route may have the following delivery pattern: Year 1: 4x20 credit modules, to include Research Methods Year 2: 2x20 credit modules, 1x60 credit Research Project module</p> |
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| Programme Structure - 180 credit points | |
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| 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

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| Teaching, Learning and Assessment | <p>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.</p> |
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Opportunities for work related learning

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| Opportunities for work related learning |
| <p>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.</p> |

Entry Requirements

| Type | Description |
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| Other international requirements | <p>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.</p> |

Programme Contacts

Programme Leader

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| Contact Name |
| Darren Sexton |

Link Tutor

Contact Name