

## Overview

<b>Programme Code</b>	45577
<b>Programme Title</b>	Pharmacy
<b>Awarding Institution</b>	Liverpool John Moores University
<b>Programme Type</b>	Integrated Masters with Foundation
<b>Programme Leader</b>	Touraj Ehtezazi
<b>Link Tutor(s)</b>	

## Awards

Award Type	Award Description	Award Learning Outcomes
Target Award	Master of Pharmacy - MPHf	See Learning Outcomes Below

<b>Alternate Award Names</b>	Pharmaceutical Studies
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## External Benchmarks

<b>Subject Benchmark Statement</b>	
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## Accreditation

### Programme Accredited by

PSRB Name	Type of Accreditation	Valid From Date	Valid To Date	Additional Notes

General Pharmaceutical Council (GPhC)	Accredited by the General Pharmaceutical Council (GPhC) in order to progress to pharmacist pre-registration training and then to register as a pharmacist. Please note, the 5-year integrated MPharm degree programme includes pre-registration training.		
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## Programme Offering(s)

Mode of Study, Mode of Delivery	Intake Month	Teaching Institution	Programme Length
Full-Time, Face to Face	September	LJMU Taught	5 Years

## Aims and Outcomes

### Educational Aims of the Programme

To inculcate an appreciation of pharmacy as a patient centred discipline and an understanding of the role of the pharmacist in a variety of professional settings. To provide knowledge of the chemical, physical and biological sciences appropriate to professional practice in pharmacy or generally in the pharmaceutical industries, research or education. To provide knowledge of legal and administrative arrangements, codes of practice and ethics and develop practical skills relevant to the profession of pharmacy. To facilitate the development of an ability to apply knowledge of basic scientific principles and/or legal and administrative arrangements to the solution of practical problems in a clinical setting and in industry and the pharmaceutical sciences. To provide knowledge of the planning and execution of research and the analysis of results obtained and to encourage a critical approach to published research leading to evidence-based decision-making skills. To facilitate the development of problem solving skills. To facilitate the development of an ability to work both independently and as a team member. To facilitate the development of all forms of communication skills. To prepare students for life-long learning and continuing professional development. To prepare students for entry into the pre-registration training required for registration by the GPhC. To encourage students to fully engage with the development of employability skills by completing a self-awareness statement.

### Learning Outcomes

Code	Description
PLO1	Explain aspects of chemistry relevant to the structure, isolation, purification, synthesis, chemical reactivity and biological activity of drugs, biotechnology, the quality control of medicinal products and the quantification of drugs in medicines and biological fluids.
PLO2	Explain the relevant health policy and pharmaco-economics.
PLO3	Explain the types and relevance of complementary therapies.

<b>Code</b>	<b>Description</b>
PLO4	Explain the drug and substance abuse and the relevant issues.
PLO5	Demonstrate the ability to arrive at an understanding of complex issues which require the assembly, assimilation, critical analysis and synthesis of a wide range of information.
PLO6	Demonstrate creativity in the production of solutions to complex problems, especially in the practice setting.
PLO7	Demonstrate the design and assessment of research and analysis of data.
PLO8	Conduct standard laboratory procedures and operate instruments likely to be met in the practice setting or laboratory.
PLO9	Safely handle potentially dangerous materials and assess risks.
PLO10	Store and supply medicines applying pharmaceutical knowledge and in accordance with legal and administrative requirements and ethics.
PLO11	Accurately perform pharmaceutical calculations and use units appropriately.
PLO12	Explain the relevance of physical chemistry including chemical kinetics and drug stability.
PLO13	Apply pharmaceutical principles and clinical governance to the formulation, preparation and packaging of products dispensed (including those prepared extemporaneously).
PLO14	Recognise common disease states and respond appropriately.
PLO15	Advise patients and other health care professionals on the use of medicines.
PLO16	Report adverse reactions to medicinal products.
PLO17	Perform diagnostic testing, health screening and engage in health promotion.
PLO18	Manage themselves in accordance with the GPhC's Standards for Pharmacy Professionals.
PLO19	Demonstrate library skills - information retrieval from primary and secondary sources.
PLO20	Demonstrate the use of information and communications technology including word processing, the use of spread sheets and online information searching.
PLO21	Demonstrate the effective dissemination of information in oral and written form to a specialist or lay audience.
PLO22	Demonstrate ability to work effectively either independently or as a member of a team Self-motivation, planning strategies and efficient time management.
PLO23	Explain all stages of drug development, assessment of safety, efficacy and cost-effectiveness marketing.
PLO24	Demonstrate the capacity for independent learning that will be required for continuing professional development.
PLO25	Explain the formulation and manufacture of medicinal products including sterile products, general and microbiological quality control and packaging and labelling.

<b>Code</b>	<b>Description</b>
PLO26	Demonstrate how physiology, biochemistry, pathology, microbiology, genetics and nutrition leading to an understanding of disease processes and how drugs are used to prevent, ameliorate or cure such conditions.
PLO27	Demonstrate how the processes by which drugs are absorbed into, distributed around and eliminated from the body.
PLO28	Explain and identify adverse drug reactions and drug interactions.
PLO29	Explain the law and ethics as relevant to the supply of medicines and administrative arrangements within the NHS.
PLO30	Explain social and behavioural sciences as relevant to pharmacy practice.

## Programme Structure

### Programme Structure Description

The programme is offered as a 5 year programme of full time study only. It is organised as 5 levels of study each corresponding to one year of the programme. The programme is based on a two semester academic year. A total of 600 credits is required for the award of an MPharm degree and the credits are divided equally between the 5 levels of study. Levels 4-7 have one 120 credit module. Credits are designated to each module and are awarded for the achievement of the learning outcomes of the module. Degree classification is based on 60% of level 7 credit plus 30% of level 6 credit plus 10% of level 5 credit. The programme of each individual student is detailed in their transcript. Level 7 7000IMPHAR Advancing patient-centred care Competencies required (4): Calculations Pass/Fail up to 5 opportunities Objective Structured Clinical Examination 1 Pass/Fail up to 3 opportunities Objective Structured Clinical Examination 2 Pass/Fail up to 3 opportunities Portfolio and Personal and Professional Development Plan Pass/Fail up to 2 opportunities Level 6 6000IMPHAR Complexities of healthcare Competencies required (6): Calculations Pass/Fail up to 5 opportunities Pharmacy Law Pass/Fail up to 3 opportunities Dispensing examination Pass/Fail up to 3 opportunities Objective Structured Clinical Examination Pass/Fail up to 3 opportunities Objective Structured Laboratory Assessment Pass/Fail up to 3 opportunities Portfolio and Personal and Professional Development Plan Pass/Fail up to 2 opportunities Level 5 5000IMPHAR Medicines, patients and the pharmacist Competencies required (6): Calculations Pass/Fail up to 5 opportunities Pharmacy Law Pass/Fail up to 3 opportunities Dispensing examination Pass/Fail up to 3 opportunities Objective Structured Clinical Examination Pass/Fail up to 3 opportunities Objective Structured Laboratory Assessment Pass/Fail up to 3 opportunities Portfolio and Personal and Professional Development Plan Pass/Fail up to 2 opportunities Level 4 4000IMPHAR Integrated Foundations of Pharmacy Competencies required (6): Calculations Pass/Fail up to 5 opportunities Pharmacy Law Pass/Fail up to 3 opportunities Dispensing examination Pass/Fail up to 3 opportunities Objective Structured Clinical Examination Pass/Fail up to 3 opportunities Objective Structured Laboratory Assessment Pass/Fail up to 3 opportunities Portfolio and Personal and Professional Development Plan Pass/Fail up to 2 opportunities Students who successfully complete 120 credits at Level 4 but who do not continue on the MPharm programme will be transferred to the alternative exit award of Certificate of Higher Education Pharmaceutical Studies. Students who successfully complete 240 credits at Levels 4 and 5 but who do not continue on the MPharm programme will be transferred to the alternative exit award of Diploma of Higher Education Pharmaceutical Studies. To progress to Level 4 of this programme (MPharmF), students are required to be successful in all modules. To be successful in modules 3455FNDSCI Human Anatomy and Physiology, 3458FNDSCI Introduction to Chemistry, 3459FNDSCI Introduction to Biochemistry and Cell Biology, 3460FNDSCI Further Chemistry, and 3461FNDSCI Introduction to Molecular Biology and Genetics, students need to obtain a mark of at least 55% in each assessment component. Students who successfully complete 360 credits at Levels 4, 5 and 6 but who do not continue on the MPharm programme will be transferred to the alternative exit award of BSc (Hons) Pharmaceutical Studies. Option: additional study year abroad following Level 5 The programme will offer the opportunity of an additional study year abroad following Level 5. Students will be enrolled on a 720 credit integrated masters with study abroad programme. Of those 720 credits, 120 will be taken via a Level 5 study abroad module [5002IMPHAR Study Year abroad]. The modules to be studied in the host institution must be agreed in advance.

<b>Programme Structure - 480 credit points</b>	
<b>Level 3 - 120 credit points</b>	<b>CORE</b>
[MODULE] 3455FNDSCI Human Anatomy and Physiology Approved 2022.01 - 20 credit points	
[MODULE] 3457FNDSCI Fundamental Science Skills Approved 2022.01 - 20 credit points	
[MODULE] 3458FNDSCI Introduction to Chemistry Approved 2022.03 - 20 credit points	
[MODULE] 3459FNDSCI Introduction to Biochemistry and Cell Biology Approved 2022.01 - 20 credit points	
[MODULE] 3460FNDSCI Further Chemistry Approved 2022.02 - 20 credit points	
[MODULE] 3461FNDSCI Introduction to Molecular Biology and Genetics Approved 2022.02 - 20 credit points	
<b>Level 4 - 120 credit points</b>	
<b>Level 4 Core - 120 credit points</b>	<b>CORE</b>
[MODULE] 4000IMPHAR Integrated Foundations of Pharmacy Approved 2022.01 - 120 credit points	

<b>Level 5 - 120 credit points</b>	
<b>Level 5 Core - No credit points</b>	CORE
[MODULE] 5000IMPHAR Medicines, Patients and the Pharmacist Approved 2022.01 - 120 credit points	
<b>Optional placement - 120 credit points</b>	OPTIONAL
<b>Study Abroad - 120 credit points</b>	OPTIONAL
[MODULE] 5002IMPHAR Study Year Abroad - Pharmacy Approved 2022.01 - 120 credit points	
<b>Level 6 - 120 credit points</b>	
<b>Level 6 Core - 120 credit points</b>	CORE
[MODULE] 6000IMPHAR Complexities of Healthcare Approved 2022.02 - 120 credit points	
<b>Level 7 - 120 credit points</b>	
<b>Level 7 Core - 120 credit points</b>	CORE
[MODULE] 7100IMPHAR Advancing Patient-Centred Care Approved 2022.01 - 120 credit points	

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

## Approved variance from Academic Framework Regulations

### Variance

This programme has the following variances to the Academic Framework, approved by Education Committee in June 2018: 1. A module size of 120 credits is permitted at levels 4-7 This requirement relates to the framework for Pharmacy education and integrated nature of the programme. (GPhC standard 5.1, 5.5a) 2. Component marking - A pass mark must be achieved in each validated component of a module. - No trailing of modules or module components is permitted. All components must be passed and all competencies must be satisfied to pass a module. This is a requirement of the GPhC (GPhC standards – 5.9, 5.10, 5.11) The aim is that students are treated in a similar manner to students with a more normal modular structure, and that the effects of failure are not unusually harsh. 3. Referrals in individual assessments Failure in an individual assessment component at the first attempt will result in the student being referred in that component rather than the entire module. Referrals may be offered “in year” following a formal Board of Examiners in order to facilitate progression. Referral in an individual component (Exam/coursework) will result in the mark for the referred component being capped at the pass mark rather than the overall module mark being capped at the pass mark. If after these referrals have been completed a student has not passed all components (Exam/coursework), an exceptional second referral(s) will be offered by the Board of Examiners if: The student has passed components that contribute at least 80% of the module mark. The total of the components considered for exceptional second referral at any one level of the programme does not contribute more than 20% to the module mark. The student has attempted all the relevant referral opportunities. Students will normally be permitted an exceptional opportunity in ONE competency provided all other competencies within level have been passed. 4. The penalty for AMP2 and AMP3 tariffs should be the same as AMP1 – namely Zero for assessment component 5. Final Award Calculation To permit the use of the weighted assessment component marks at L7 rather than the overall module mark in the calculation of the award mark and consideration of borderline students.

## Teaching, Learning and Assessment

Learning is facilitated by a variety of methods. These methods include practicals (clinical and laboratory), workshops in the pharmacy clinical suites, tutorials, computer aided learning, simulation, asynchronous online directed-study and a mixture of online or face-to-face lectures, with expectations for further directed and self-directed independent study. Periods of professional placement across the pharmacy sectors will be provided. A variety of assessment methods are used, these include competencies, coursework and examinations. Formative assessment and feedback will be provided for all types of assessment. Coursework will consist of reports, posters and presentations relating to theoretical and practice-based topics, case-studies or laboratory exercises. Examinations in levels 4 - 7 will be based on multiple choice questions and extended multiple items to mirror the GPhC pre-registration examinations. Competencies will consist of practical dispensing tests, Objective Structured Laboratory Assessments (OSLAs) and Objective Structured Clinical Examinations (OSCEs), examination of pharmacy law and numeracy, and a reflective professional portfolio including personal/professional development planning. The portfolio requires students to demonstrate the acquisition of a full range of key skills. Performance in workshops, tutorials and group assignments is both formatively and summatively assessed by tutor and may also be subject to peer group assessment. Research projects are assessed by seminars, poster production and written reports and for group research, peer assessment will also be used. Learning activities will include practice-based activities (interprofessional learning, clinical and communication simulations, patient-student engagement), individual report production, group assignments, library projects and professional learning days throughout the programme and a research project is undertaken at Level 7. Effective work and study practices are introduced in face-to-face and online lectures and workshops and embedded into the Level 4 module. Computer literacy is embedded within all modules at all levels of the programme. Development of skills in the dissemination of information and communication is facilitated by the preparation and presentation of seminars and the production of written reports. At all levels, group projects, reports and practical exercises necessitate team working. A large element of independent private study is embedded within each module and students are supported in developing the skills to become independent learners by the end of Level 7.

## Opportunities for work related learning

4000IMPHAR Half day (each) in hospital and community pharmacy - information gathering Student-patient engagement, 1 hour Interprofessional learning with other healthcare students 5000IMPHAR One day community pharmacy visit Student-patient engagement, 2 hours Interprofessional learning - exploring professional role with other healthcare students 6000IMPHAR Hospital pharmacy ward visits Simulation/interprofessional learning Full day placement in other healthcare settings Student-patient engagement Exercise on 'transferring patients safely' with a pharmacist 7100IMPHAR Hospital pharmacy placements Simulation/interprofessional learning Student-patient engagement At all levels - strongly encouraged and assisted to self-source at least 1 week's work experience in hospital and 1 week in community pharmacy during own time, e.g. during the summer break. Large proportions of all modules are directly relevant to the work of a Pharmacist and are delivered in a manner that closely simulates real working conditions.

## Entry Requirements

Type	Description
Other international requirements	International students are required have IELTS 7.0 with a minimum of 6.5 in all components (or recognised equivalent qualification) (see Standard 4.2b). International students will be required to provide, in addition to the Fitness to Practise requirements noted above, the following: • an overseas DBS as outlined in the UK Visa and Immigration website • a Letter of Good Character

A levels	The entrance requirements for the MPharm programme are described on the University webpages at <a href="https://www.ljmu.ac.uk/study/courses">https://www.ljmu.ac.uk/study/courses</a> UCAS Tariff Points Required: 96 pts Tariff points may differ for International Baccalaureate qualifications. A Levels: Minimum number of A Levels required: 2 Subject specific requirements: A2 Chemistry and minimum AS Biology General Studies is not acceptable AS level awards are acceptable only when combined with other qualifications. A maximum of 20 AS points accepted AS Double Award: Acceptable only when combined with other qualifications All applicants are advised to study at least 2 sciences at A2 GCSE and Equivalents GCSE/Standard grades required: At least Grade 4 (or equivalent) in English and Maths . Grade 4 (or equivalent) or above in all sciences studied.
BTECs	BTEC Extended Diploma - MMM BTEC Diploma - DD
Alternative qualifications considered	All eligible applicants for the Pharmacy with Foundation Year programme will be interviewed as part of the admissions selection process. NVQ Levels 1, 2 and 3 are not accepted. English requirements for the LJMU MPharm programme are explicitly stated on the University's and UCAS website. UK applicants must have GSCE at Grade 4 (or equivalent) or above in English. The Fitness to Practise requirements refer to both the prospective student's character and health. All applicants are required to self-declare in writing that their character and health are aligned to the HEOPs regulations. During the course of the first year of the programme, students are required to complete a DBS check and undergo a health screening to ensure that they align to the HEOPs standards for pharmacy students. A Fitness to Practise Panel will undertake a review, if there is inconsistency with a student's self-declaration and the outcome of their DBS check. The Panel will determine if such students should remain on the MPharm programme. If the health screening undertaken by the LJMU Occupational Health Unit does not reach the HEOP standards then the student is required to leave the MPharm programme. However, an alternative LJMU degree programme will be offered after appropriate discussion has taken place. All the relevant Fitness to Practise criteria are to be fulfilled before a student is able to progress to the next level of the programme. Due to the integrated nature of the MPharm programme no recognition of prior learning will be permitted. Students are only able to enter at Level 3 of this programme.
International Baccalaureate	International Baccalaureate - Acceptable on its own and combined with other qualifications Minimum 26. Grade 6 in Chemistry and Biology (higher level). Welsh Baccalaureate Advanced Diploma acceptable only when combined with other qualifications. Advanced Diploma grades/subjects required 88 UCAS pts.