



Programme Specification

A statement of the knowledge, understanding and skills that underpin a taught programme of study leading to an award from The University of Sheffield

Programme Details

| 1. Programme title | Pharmacy |
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| 2. Programme code | HESU003 |
| 3. QAA FHEQ level | Level 7 |
| 4. Faculty | Health |
| 5. Department | School of Allied Health Professions, Nursing and Midwifery |
| 6. Other departments providing credit bearing modules for the programme | None |
| 7. Accrediting Professional or Statutory Body | General Pharmaceutical Council |
| 8. Date of production/revision | May 2024 |

| Awards | Type of award | Duration |
|-------------------------|--|-----------------------|
| 9. Final award | Masters' of Pharmacy (MPharm) | 4 years (480 credits) |
| 10. Intermediate awards | BMedSci in Pharmaceutical Studies | 3 years (360 credits) |
| | Diploma of Higher Education in Pharmaceutical Studies | 2 years (240 credits) |
| | Certificate of Higher Education in Pharmaceutical Studies | 1 year (120 credits) |

Programme Codes

| 11. JACS code(s) Select between one and three codes from the <u>HESA website.</u> | B230 | |
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| 12. HECoS code(s) Select between one and three codes from the <u>HECoS</u> <u>vocabulary.</u> | 100251 | |

Programme Delivery

| 13. Mode of study | Full-time |
|----------------------|-----------|
| 14. Mode of delivery | In Person |

15. Background to the programme and subject area

The 4-year MPharm degree programme will provide students with the knowledge and practical skills to become, after completion of a Foundation training year, a General Pharmaceutical Council (GPhC) registered Pharmacist.

The course provides a unique combination of science and practice as a healthcare professional with students considering the role of drugs and medicines from their design, through therapeutic use and patient counselling and prescribing. Through University based learning and periods of experiential learning and inter-professional learning, students will develop their consultation, clinical decision making and leadership skills. The course will be delivered through disease based integrated modules which increase with complexity over the course. Learning will be case study based and delivered through team teaching to develop integrated problem-solving techniques. Varied assessment methodologies will be used including examinations, Observed Structured Clinical Examinations, coursework and placement-based tasks.

This course is being opened as a response to changes in the role of Pharmacists nationally to become prescribers and the regional (South Yorkshire) shortage of Pharmacists across all sectors of the profession. The University has committed strategic investment funds for the development of appropriate specialised estate and recruitment of personnel for the delivery of the programme.

16. Programme aims

| MPh | MPharm Pharmacy aims to: | |
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| A1 | Educate graduates to meet the Learning Objectives set by the General Pharmaceutical Council for an accredited MPharm and Registration as a Pharmacist. | |
| A2 | A2 Prepare graduates to be evidence-based clinical decision makers able to apply a strong scientific foundation to clinical practice and prescribing. | |
| A3 | Prepare graduates that will be responsible for their own learning and continuing professional development and be reflective, flexible, ethical and professional practitioners. | |
| A4 | Prepare graduates equipped with a research basis to critically evaluate practice and develop their profession. | |
| A5 | Prepare graduates with a strong background in public health and social accountability ready to work in the best interests of the health of people and society. | |

17. Programme learning outcomes

| | earning Outcomes: Person Centred Care and Collaboration cessful completion of the programme, students will be able to demonstrate the g | Links to Aim(s) |
|------|---|--------------------|
| PCC1 | Demonstrate empathy and keep the person at the centre of their approach to care at all times. | A1, A5 |

| PCC2 PCC3 | Work in partnership with people to support and empower them in shared decision-making about their health and wellbeing. | A1, A5 |
|--------------|---|-------------------|
| PCC3 | | 1 |
| | Demonstrate effective communication at all times and adapt their approach and communication style to meet the needs of the person. | A1, A5 |
| PCC4 | Understand the variety of settings and adapt their communication accordingly. | A1, A5 |
| PCC5 | Proactively support people to make safe and effective use of their medicines and devices. | A1, A2, A5 |
| PPC6 | Treat people as equals, with dignity and respect, and meet their own legal responsibilities under equality and human rights legislation, while respecting diversity and cultural differences. | A1, A5 |
| PPC7 | Obtain informed consent before providing care and pharmacy services. | A1, A5 |
| PPC8 | Assess and respond to the person's particular health risks, taking account of individuals' protected characteristics and background. | A1, A2, A5 |
| PPC9 | Take responsibility for ensuring that personal values and beliefs do not compromise person-centred care. | A1, A3, A5 |
| PPC10 | Demonstrate effective consultation skills, and in partnership with the person, decide the most appropriate course of action. | A1, A2, A5 |
| PPC11 | Take into consideration factors that affect people's behaviours in relation to health and wellbeing. | A1, A5 |
| PPC12 | Take an all-inclusive approach to ensure the most appropriate course of action based on clinical, legal and professional considerations. | A1, A3, A5 |
| PPC13 | Recognise the psychological, physiological and physical impact of prescribing decisions on people. | A1, A2, A3, A5 |
| PPC14 | Work collaboratively and effectively with other members of the multi- disciplinary team to ensure high-quality, person-centred care, including continuity of care. | A1, A3 |
| | earning Outcomes: Professional Practice essful completion of the programme, students will be able to demonstrate the fo | llowing |
| PP1 | Demonstrate the values, attitudes and behaviours expected of a pharmacy professional at all times. | A1, A3, A5 |
| PP2 | Apply professional judgement in all circumstances, taking legal and ethical reasoning into account. | A1, A2 |
| PP3 | Recognise and work within the limits of their knowledge and skills and get support and refer to others when they need to. | A1, A3 |
| PP4 | Take responsibility for all aspects of pharmacy services, and make sure that the care and services provided are safe and accurate. | A1, A3, A6 |
| PP5 | Take responsibility for all aspects of health and safety and take actions when necessary. | A1, A6 |

| PP6 | Act openly and honestly when things go wrong and raise concerns even when it is not easy to do so. | A1, A3 |
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| PP7 | Apply the science behind pharmacy in all activities. | A1, A2 |
| PP8 | Demonstrate how the science behind pharmacy is applied in the discovery, design, development and safety testing of medicines and devices. | A1, A2 |
| PP9 | Recognise the technologies that are behind developing advanced therapeutic medicinal products and precision medicines, including the formulation, supply and quality assurance of these therapeutic agents. | A1, A2 |
| PP10 | Keep abreast of new technologies and use data and digital technologies to improve clinical outcomes and patient safety, keeping to information governance principles. | A1, A2 |
| PP11 | Apply pharmaceutical principles to the safe and effective formulation, preparation, packaging and disposal of medicines and products. | A1, A2 |
| PP12 | Consider the quality, safety and risks associated with medicines and products and take appropriate action when producing, supplying and prescribing them. | A1, A2 |
| PP13 | Take responsibility for the legal, safe and efficient supply, prescribing and administration of medicines and devices. | A1, A2, A3 |
| PP14 | Demonstrate effective diagnostic skills, including physical examination, to decide the most appropriate course of action for the person. | A1, A2 |
| PP15 | Apply the principles of clinical therapeutics, pharmacology and genomics to make effective use of medicines for people, including in their prescribing practice. | A1, A2 |
| PP16 | Appraise the evidence base and apply clinical reasoning and professional judgement to make safe and logical decisions which minimise risk and optimise outcomes for the person. | A1, A2, A4 |
| PP17 | Critically evaluate and use national guidelines and clinical evidence to support safe, rational and cost-effective procurement for the use, and prescribing of, medicines, devices and services. | A1, A2. A4 |
| PP18 | Accurately perform calculations. | A1, A2 |
| PP19 | Effectively promote healthy lifestyles using evidence-based techniques. | A1, A5 |
| PP20 | Apply the principles of effective monitoring and management to improve health outcomes. | A1, A5 |
| PP21 | Anticipate and recognise adverse drug reactions and recognise the need to apply the principles of pharmacovigilance. | A1, A2 |
| PP22 | Apply relevant legislation and ethical decision-making related to prescribing, including remote prescribing. | A1, A2, A3 |
| PP23 | Prescribe effectively within the relevant systems and frameworks for medicines use. | A1, A2 |

| PP24 | Understand clinical governance in relation to prescribing, while also considering that the prescriber may be in a position to supply the prescribed medicines to people. | A1, A2 |
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| PP25 | Take responsibility for people's health records, including the legality, appropriateness, accuracy, security and confidentiality of personal data. | A1, A2, A5 |
| PP26 | Understand and implement relevant safeguarding procedures, including local and national guidance in relation to each person. | A1, A2, A3, A5 |
| PP27 | Effectively make use of local and national health and social care policies to improve health outcomes and public health, and to address health inequalities. | A1, A5 |
| PP28 | Proactively participate in the promotion and protection of public health in their practice. | A1, A5 |
| PP29 | Identify misuse of medicines and implement effective strategies to deal with this. | A1, A2 |
| PP30 | Respond appropriately to medical emergencies, including the provision of first aid. | A1, A3, A5 |
| | Learning Outcomes: Leadership and Management cessful completion of the programme, students will be able to demonstrate the fo | llowing |
| LM1 | Demonstrate effective leadership and management skills as part of the multi- disciplinary team. | A1, A6 |
| LM2 | Make use of the skills and knowledge of other members of the multi- disciplinary team to manage resources and priorities. | A1, A6 |
| LM3 | Develop, lead and apply effective strategies to improve the quality of care and safe use of medicines. | A1, A6 |
| LM4 | Actively take part in the management of risks and consider the impacts on people. | A1, A6 |
| LM5 | Use tools and techniques to avoid medication errors associated with prescribing, supply and administration. | A1, A2 |
| LM6 | Take appropriate actions to respond to complaints, incidents or errors in a timely manner and to prevent them happening again. | A1, A3, A6 |
| LM7 | Recognise when and how their performance or that of others could put people at risk and take appropriate actions. | A1, A3, A6 |
| LM8 | Demonstrate resilience and flexibility, and apply effective strategies to manage multiple priorities, uncertainty, complexity and change. | A1, A3, A6 |
| | earning Outcomes: Education and Research | llowing |
| 504 | Reflect upon, identify, and proactively address their learning needs. | A1, A3 |
| ER1 | | , |

| | improvement, and demonstrate how these are used to improve care and | A1, A4 |
|--|---|--------|
| | services | |

18. Learning and teaching methods

A variety of learning approaches will be used across the curriculum to enable all students to succeed and to allow all educators to work within their preferred methodology. From year 1 there will be an emphasis on active learning, using application and case-based scenarios to reinforce core content through workshops and simulation teaching sessions. Whilst in year 1 significant material will be delivered through traditional lectures in the early stages, this will move to a more flipped approach as the year develops and as the students' progress through the years. To reinforce integration and contextualisation, workshops will be delivered through a team-teaching approach with crossdisciplinary scenarios developed by subject specialists.

Experiential learning and interprofessional learning are key aspects of the programme. Students will undertake periods of learning in practice, from volunteering through to a variety of Pharmacy settings from Year 1, to develop their skills and competencies. They will learn of the importance of team working in healthcare through interprofessional learning activities with students from across the Faculty of Health.

The course will adopt methods of learning that incorporate social and participatory dimensions including peer-learning, group working and learning from patients and the public.

19. Assessment and feedback methods

Assessment design is based on the GPhC 2021 Standards for the Initial Education and Training of Pharmacists Learning Outcomes and the University of Sheffield Assessment Framework.

Key aspects of the design of assessments for the MPharm include:

- Ensuring authenticity wherever possible through for example simulated activities and casebased approaches. This will be facilitated through working with experiential learning providers.
- Equipping graduates for further study *e.g.* Foundation training examination or CPD.
- Providing consistency of approach when using the same assessment type to provide clarity to students. Assessment criteria and rubrics will also be available on the VLE for students to access.
- Ensuring accessibility of assessment for all students and signposting of students for additional support to University wide services.
- Integrating an inclusive approach in the design and implementation of assessment in line with the expectations of Higher Education Advance.
- The assessment strategy and programme will be informed by appropriate theory (*e.g.*, Miller's Triangle) and educational research (*e.g.* Patients as Educators) to ensure graduates feel prepared for practice.

A variety of assessment types will be developed appropriate to specific module learning outcomes. All assessments will be mapped to learning outcomes and the mapping made available to students. Exam delivery will be in-person and timed. For synoptic exams, we will aim to mirror practice by providing access to key resources through a locked down browser.

The types of assessments that will be used include:

Semester examinations – these will take the form of mixed MCQ – short answer papers. A number of MCQ approaches will be used of increasing difficulty including subject level single best answer, module level single best answer, extended matching and extended reasoning. This will enable assessment of both breadth and depth of knowledge (Graded on 0-100 scale, 40% pass mark).

Controlled open book synoptic case-based examinations involving review of notes / prescribing data and clinical decision making Graded on 0-100 scale, 40% pass mark)

Professional portfolio (PebblePad) (Pass / Fail)

Experiential Learning Activities and Placement workbooks (Pass / Fail)

Laboratory portfolios to cover scientific laboratory experiments (Graded on 0-100 scale, 40% pass mark)

Observed Structured Clinical Examinations (Pass / Fail)

Calculations Assessment (Pass / Fail)

Project reports, essays, extended written work (Graded on 0-100 scale, 40% pass mark)

Feedback

Feedback will be delivered in line with the University's six principles of feedback. The feedback method will be determined using the principles of the Feedback Benchmarking Framework and will include embedding of practical experience of using feedback in learning and teaching and staff moderation of feedback to ensure consistency as part of the internal review process. Students will be encouraged to log feedback in the feedback portal and access the support mechanisms.

For summative work, detailed feedback for students who do not meet the threshold criteria will be provided prior to their supplementary attempt. Additionally, cohort level feedback will be provided to all students through the VLE.

20. Programme structure and student development

The approach adopted, featuring eight large credit modules, across the four years of the MPharm, will enable integration to be achieved at the multidisciplinary level of Harden's ladder for core delivery and at the Interdisciplinary and transdisciplinary level through interprofessional learning. Students will be enabled to develop their core competencies at the Shows How and Does levels of Miller's triangle through seven vertical integrated subject pillars that deliver increased complexity through a spiral curriculum. All modules are core within the degree programme to ensure completion of all GPhC learning outcomes. Within the Improving Quality in Practice module there will be a level of choice of setting including the possibility of studying with a partner University overseas through the Turing programme. A choice element is also provided in the final 5-day experiential learning placement.

Horizontal Integration

The eight modules are shown in Figure 1. The use of large modules enables the use of synoptic assessments ensuring students have overall breadth of knowledge alongside depth, enables contextual people and patient-centred learning for students, delivers flexibility within credit allocations, avoids unnecessary duplication of material and provides temporal flexibility in experiential learning and inter-professional learning activities.

| Improving Quality in Practice | Year 4 |
|--|--------|
| Advanced Pharmaceutical Practice and Preparing for Prescribing | real 4 |
| Evidence-based Treatment of Diseases 4 | |
| Evidence-based Treatment of Diseases 3 | Year 3 |
| Evidence-based Treatment of Diseases 2 | Year 2 |
| Evidence-based Treatment of Diseases 1 | |
| Science of Pharmacy | Year 1 |
| Patient and Society | |

Year 1 (FHEQ Level 4): Year 1 comprises two year-long 60 credit modules: 'The Science of Pharmacy' and the 'Patient and Society'. These two modules provide the fundamental underpinning knowledge to enable students to develop as clinical decision makers and prescribers.

The 'Science of Pharmacy' is divided across the two semesters with teaching in the first semester being focused on core scientific skills and levelling out of students with different previous academic backgrounds and in the second semester providing the specialist skills basis for subsequent years. Thus, semester 1 covers cell biology, anatomy and physiology, biochemistry, biological organic chemistry and biological physical chemistry, while semester 2 will introduce, through the lens of the peripheral nervous system, drug design fundamentals, pharmacology, analytical chemistry and dosage form design. Taught material is supplemented and reinforced by practical sessions including extemporaneous dispensing.

The 'Patient and Society' introduces students to the pharmacy profession, dispensing and the fundamentals of law and ethics through both taught sessions and experiential learning. Teaching will include the underpinning legal frameworks for the sale and supply of human medicines in the UK. The importance of professionalism and expected skills, attitudes and values will be addressed, as well as teaching to support the development of ethical and professional decision-making. Practical issues important in preparation for real world practice such as risk management, consent and confidentiality will also be covered.

This module covers important legal and societal aspects of healthcare with a focus on equality, diversity and inclusion and recognition of key public health concepts relating to health inequality and the social determinants of health. Students' understanding will be consolidated through an experiential learning social accountability project.

Year 2 (FHEQ Level 5): Year 2 will run as two 60 credit modules encompassing six disease themes: respiratory diseases, infectious diseases, endocrine disorders, cardiovascular disease, inflammatory disease and gastrointestinal diseases. Within each theme a patient centred approach will be adopted with the first learning session being with a Patient (Carer) as Educator discussing their experience with their condition, followed by epidemiology, underlying physiology, drug design and pharmacology, drug formulation, clinical decision making and the practice of pharmacy. Each theme will finish with another Patient as Educator session where students will pre prepare questions based on their learning for discussion.

Appropriate and relevant laboratory practicals will be included to reinforce knowledge. Alongside this, students will be taught practice issues related to different formulations and associated patient counselling. The development of clinical reasoning skills will be supported through responding to symptoms, further teaching of evidence-based practice, development of consultation skills and through understanding cognitive biases and human factors. Students will also be introduced to service delivery within Pharmacy settings.

Year 2 will incorporate both simulation activities and periods of experiential learning in practice in both community and hospital settings. Year 2 will additionally incorporate teaching on sustainability in healthcare, medicines design and manufacture and prescribing in line with TUoS 'one university' pillar. This activity will also enable learning through 'internationalisation at home' for the students.

Year 3 (FHEQ Level 6): Similar to Year 2, Year 3 will run as two 60 credit integrated modules incorporating 6 themes. Whilst the 5 clinical themes of immune diseases, cardiovascular disease, cancer, central nervous system disorders and mental health will run sequentially in separate modules and using the same teaching model as Year 2, the sixth theme; 'the story of a drug' will be year-long and material will be covered in both modules and assessed cross-modularly.

The 'story of a drug' will consider all aspects of the drug discovery process from preliminary identification of a target, design of a drug, developing a formulation, genomics, clinical trials, licencing, NICE, marketing and post marketing surveillance through the medium of a group project incorporating both laboratory sessions and workshops supplemented by taught sessions. Students will be required to design a patient information leaflet for their drug and identify key counselling points for patients. Year 3 will extend the periods of experiential learning in practice through placements in community

and hospital settings and the addition of a primary care placement and a mental health placement.

Year 4 (FHEQ Level 7): Year 4 will include two modules: 'Improving Quality in Practice' and 'Advanced Pharmaceutical Practice and Preparing for Prescribing'.

The final year research project will be delivered through an embedded placement in practice with supervision provided by academics from the school and supervisors from within the practice environment. Placements are sought from all sectors to enable student choice and relevance to their preferred sector of practice.

The 'Advanced Pharmaceutical Practice and Preparing for Prescribing' module will consider ethics and clinical decision making in complex situations. Students will develop their clinical reasoning skills, critically evaluating available information to solve complex problems in relation to patient care. Specific patient groups will be targeted, for example, paediatrics, pregnant women, patients with reduced renal and liver function. Furthermore, students will be taught about the legal, policy, professional, ethical and clinical governance frameworks in preparation for their prescribing role. They will develop relevant basic physical assessment skills and clinical communication skills for the purposes of clinical management of patients. These will be developed through teaching and assessment in simulation prior to starting clinical placement and further developed under supervision whilst on placement.

Two additional foci of this year are: the development of pharmacists as educators, which will be enhanced by an interprofessional learning activity with speech and language therapy students, and the development of pharmacy managers and leaders.

Detailed information about the structure of programmes, regulations concerning assessment and progression, and descriptions of individual modules are published in the University Calendar available online at <u>http://www.sheffield.ac.uk/calendar/</u>.

21. Criteria for admission to the programme

Detailed information regarding admission to the programme is available at http://www.shef.ac.uk/prospective/

22. Reference points

The learning outcomes have been developed to reflect the following points of reference:

General Pharmaceutical Council Standards for the Initial Education and Training of Pharmacists 2021 <u>https://www.pharmacyregulation.org/students-and-trainees/education-and-training-pharmacists</u> providers/standards-education-and-training-pharmacists

University Vision https://www.sheffield.ac.uk/vision

23. Additional information

This degree is currently being accredited by the General Pharmaceutical Council and has been designed to reflect the requirements of the Standards for Initial Education and Training. More information about the accreditation can be found at https://www.pharmacyregulation.org/students-and-trainees/approved-courses-recognised-qualifications

This specification represents a concise statement about the main features of the programme and should be considered alongside other sources of information provided by the teaching department(s)

and the University. In addition to programme specific information, further information about studying at The University of Sheffield can be accessed via our Student Services web site at http://www.shef.ac.uk/ssid.