

Reaccreditation of a Master of Pharmacy degree course (MPharm)

University of Bath

Report of a reaccreditation event, 20-22 April 2016

Introduction

The General Pharmaceutical Council (GPhC) is the statutory regulator for pharmacists and pharmacy technicians and is the accrediting body for pharmacy education in Great Britain. The GPhC is responsible for setting standards and approving education and training courses which form part of the pathway towards registration for pharmacists. The UK qualification required as part of the pathway to registration as a pharmacist is a GPhC-accredited Master of Pharmacy degree course (MPharm). The GPhC's right to check the standards of pharmacy qualifications leading to annotation and registration as a pharmacist is the *Pharmacy Order* 2010. It requires the GPhC to 'approve' courses by appointing 'visitors' (accreditors) to report to the GPhC's Council on the 'nature, content and quality' of education as well as 'any other matters' the Council may require.

This reaccreditation event was carried out in accordance with the GPhC's 2011 MPharm Accreditation Methodology and the course was reviewed against the GPhC's 2011 education standards 'Future Pharmacists: Standards for the initial education and training of pharmacists'.

Background

The MPharm programme at the University of Bath is delivered by the Department of Pharmacy & Pharmacology, one of seven departments in the Faculty of Science. The programme was last reaccredited in 2013. On that occasion, while recognising that the School was working towards the development of a fully integrated programme as required by standard 5, the team had been concerned at the inconsistency of integration. Additionally, there had been little evidence of a clear and fit-for-purpose assessment strategy. Consequently, the team had agreed to recommend to the Registrar that the programme should be reaccredited for a shorter period of three years to allow the School to undertake the required work to meet criteria 5.1, 5.5.a and 5.7 before a further reaccreditation visit. The team's concern at the level of inter-professional education (criterion 5.6) had also led to the imposition of a condition that the School must develop an IPE strategy to provide experience of working with other healthcare professionals, with this experience increasing year on year. Following the reaccreditation, the programme, along with the assessment strategy, has been completely redesigned to fully integrate learning in science and practice. In response to the specific condition, an IPE strategy was submitted to the GPhC in 2014. This strategy, which has now been revised, will result in IPE activities in all years involving MPharm students working variously with students of psychology and social

work (University of Bath), nursing (University of the West of England) and medicine (University of Exeter; University of Bristol). Accordingly, a reaccreditation visit was arranged for April 2016 and the following is a record of that event.

Documentation

The provider submitted submission documentation to the GPhC in line with agreed timescales and a pre-visit took place at the University of Bath on 31 March 2016. During the pre-visit the schedule of meetings and timings for the reaccreditation event were confirmed and the GPhC requested that two documents be submitted/resubmitted ready for the event; these were i) the realigned Standard 10 and ii) Staff Student Liaison Committee (SSLC) minutes from the last three years.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 20 April 2016. The remainder of the event took place on site at the University of Bath on 21-22 April 2016; this comprised a series of meetings with staff and students of the University and included a tour of the University facilities.

Accreditation team

The GPhC's accreditation team ('the team') comprised:

Name	Designation at the time of accreditation event
Professor Andy Husband *	(Team leader) Professor of Pharmacy Education, Durham University
Professor Barrie Kellam	(Team member - Academic) Professor of Medicinal Chemistry University of Nottingham
Mr Ian Smith	Team member - Pharmacist) Lecturer in Pharmacy Practice Keele University
Professor Helen Howe	(Team member - Pharmacist) Retired hospital Chief Pharmacist
Mr Scott Downham	(Team member – Pharmacist – recently registered) Clinical Pharmacist
Ms Leonie Milliner	(Team member – Pharmacist Lay member) Chief Executive, Association for Nutrition

along with:

Name	Designation at the time of visit
Ms Joanne Martin *	Quality Assurance Manager (Education), General Pharmaceutical Council
Professor Brian Furman	Rapporteur, Emeritus Professor of Pharmacology, University of Strathclyde

*attended the pre-visit meeting on 31 March 2016

Declaration of potential conflicts of interest

No potential conflicts of interest were declared.

Meeting the accreditation standards

	Accreditation team's commentary
<p>Standard 1 – Patient and public safety</p> <p>There must be clear procedures to address concerns about patient safety arising from initial pharmacy education and training. Concerns must be addressed immediately.</p>	<p>The systems in place to ensure patient and public safety include the University's fitness to practise policy and procedures. At the beginning of the programme, students are introduced to the GPhC's Code of Conduct for Pharmacy Students (2010) and to fitness to practise, and are informed about behaviours that would indicate potential impairment of fitness to practise; they must complete annual fitness to practise self-declarations. All members of academic and teaching staff are briefed about the University's Fitness to Practise policy. Students are monitored by the staff and are encouraged to discuss any concerns with their personal tutors, or with the Director of Teaching. Should students pose a risk to patients, the public or to themselves, as demonstrated by their behaviour or mental health, they will not be permitted to graduate with an MPharm degree. The importance of putting patient safety at the centre of healthcare is emphasised throughout the programme; students are briefed about patient safety and complete relevant, mandatory training before their first NHS-based placement. They are also made aware of the limits of their professional competence before practice placements in all years. There are pre-placement lectures or workshops where students are coached in their responsibilities in relation to learning in practice and are given detailed briefings about activities that will be undertaken, as well as the level of supervision that is required. Students undertaking practice-based learning are supervised by pharmacists who have visiting appointments with the University and who are familiar with the University's requirements; any concerns during a placement would be reported to the Department.</p> <p>The team was satisfied that the criteria to meet this standard will be met.</p>
<p>Standard 2 – Monitoring, review and evaluation of initial education and training</p> <p>The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic way.</p>	<p>Various University-level committees (for example, the University Learning Teaching and Quality Committee, Programmes and Partnerships Approval Committee (PAPAC) and the Academic Programmes Committee) under delegated authority from the Senate, are responsible for aspects of quality management and the student learning experience, and inform business at faculty/School level. The monitoring, review and evaluation of the MPharm, which is under the control of the Faculty of Science, is undertaken through an annual report produced by the Director of Studies; this report is an evaluative summary of significant issues arising from various aspects, including statistical data (for example, recruitment, retention, progression, employment), external examiner reports, student and staff feedback on modules, the annual report of the Staff-Student Liaison Committee, and the operation of placements; it includes action or proposed action in response to each issue. This</p>

	<p>report is scrutinised by the Departmental and Faculty Learning Teaching & Quality Committees. There is also a quinquennial Degree Scheme Review, which had been due in 2015 for the MPharm, but which had been postponed because of the major redevelopment of the programme.</p> <p>All practice-based learning has agreed learning outcomes, practice-based activities and post-practice activities. Students have a named practice-based tutor for all off-campus activities and they are always under the direct supervision of a pharmacist during practice-based learning. Feedback and evaluations are collected from all practice-based learning activities, with the reports being reviewed at the Department's Practice-Based Learning Quality Assurance Board, membership of which includes teacher-practitioners, and external hospital and community tutors. The Department has mechanisms in place to ensure that pharmacists who supervise students while on placement are suitably experienced to fulfil this role and checks on the suitability of placement providers may involve site visits. One form of practice-based learning in the MPharm programme is referred to as 'Clinical Learning in Practice' (CLIP), in which, students will visit hospitals to see patients with the conditions being covered in their University-based teaching. This will be supervised and organised by four Practice Educators, who will also contribute to placements and who will be members of the Department's Practice-Based Learning Quality Assurance Board.</p> <p>Strategic advice and guidance on pharmacy education and the development of the MPharm programme is provided by a Pharmacy Education Advisory Group (PEAG), the membership of which includes patients, graduates, representatives of the NHS and Health Education England South West, and pharmacists from various sectors. The Department has also obtained the views of peers in other universities, external examiners and various patient groups, such Friends of the Western Hospitals NHS Foundation Trust, the Bristol branch of the Pituitary Foundation, and the Sirona Health patient group, and intends to use patient advisory groups, each comprising five to six patients, for each of the 'Specialised Integrated Units' (see standard 5) to inform teaching from the patient perspective.</p> <p>The team was satisfied that all criteria to meet this standard will be met.</p>
<p>Standard 3 – Equality, diversity and opportunity</p> <p>Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.</p>	<p>The University is committed to equality and diversity, this being overseen by the Equality and Diversity Committee, which reports directly to both Council and Senate. Departments must complete an annual report on their equality and diversity activities and indicate how their future plans take account of equality and diversity. Departments are also asked to confirm progress against the recommendations identified in their 'Equality Analyses'. All members of staff undergo mandatory training in equality and diversity. Moreover, students are made aware of equality and diversity issues through an interactive first year lecture early in the course, as well as through an inter-professional education activity which addresses the issue of stereotyping in the context of patient care, as well as discussing NHS values that require all protected groups to be treated equally; students also undergo equality and diversity training before going out on placements. The design of the curriculum has ensured the incorporation of equality and diversity policies and everything associated with protected groups. The Department currently holds a bronze Athena SWAN award and will apply for silver in April 2017.</p>

	<p>The team was satisfied that all of the criteria to meet this standard will be met.</p>
<p>Standard 4 – Selection of students and trainees</p> <p>Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students and trainees are fit to practise at the point of selection. Selection includes recruitment and admissions.</p>	<p>The selection criteria and all information about the programme are made explicit to prospective applicants and are published in the online undergraduate prospectus and on the Departmental website. These criteria cover the academic qualifications, including A-level or equivalent qualifications, together with those in mathematics and English language, as well as health and good character requirements. The requirements to undergo DBS checks and to provide written declarations of any medical conditions or disabilities are reinforced when students attend for interview. Initial selection for interview is based on predicted A-Level grades (ABB/BBB minimum), personal statements and academic references. Interviews are not generally academically-focussed but are based on the student’s experiences and the values of the NHS, and also evaluate communication abilities; the emphasis is on students’ personalities, communication skills and motivation. All selected home students are interviewed and overseas students are chosen selectively for interview by Skype. Widening access may involve students who do well at interview, and who come from generally under-performing schools in deprived areas, being asked for slightly lower academic grades. Members of staff involved in interviews are briefed on NHS values-based recruitment and are provided with a series of questions that will allow assessment of the applicants; a standard form is used to record interviews.</p> <p>The team was satisfied that all of the criteria to meet this standard will be met.</p>
<p>Standard 5 – Curriculum delivery</p> <p>The curriculum for MPharm degrees and the pre-registration scheme must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students and trainees practice safely and effectively.</p>	<p>Since the 2013 reaccreditation, the MPharm programme has been completely redesigned and restructured. Science and practice in the programme will be integrated throughout, with increasing levels of integration in successive years, and the programme has been designed to ensure that the standard 10 outcomes will be delivered. Year 1 will focus on the healthy individual, providing fundamental science concepts and the basis for developing students to become integrative learners, allowing students to understand their role as healthcare professionals with contextualised learning. Years 2 and 3 will use a body systems-based approach, with strong, research-led vertical themes in pharmacy practice, pharmaceuticals, medicinal chemistry and pharmacology to support the integration of science and practice, while year 4 will include a blend of research and contemporary clinical practice skills, as well as a final year research project with clear relevance to practice. The body system approach in years 2 and 3 is based around ‘Specialised Integrated Units’ (SIUs), each of which focuses on conditions and groups of conditions affecting one or more organs/systems, such as gastrointestinal, respiratory, cardiovascular and endocrine diseases, as well as mental health conditions and cancer. Years 3 and 4 will each include a module on ‘Medicines optimisation in complex patients’, and year 4 will incorporate the research project, as well as a ‘pharmacy management simulation’ module and a module on ‘Global health and management’. Each of years 1-3 will incorporate a year-long ‘Preparing for Professional Practice’ unit which includes weekly applied pharmacy skills classes. Incorporation of regular ‘Clinical Learning in Practice’ (CLIP) sessions, where students will go out to practice settings, will allow them to see patients with the conditions being studied and apply their knowledge and skills to critical reviews of the patients’ treatment. Material</p>

	<p>introduced early in the course is successively revisited in an increasingly complex manner and the patients encountered become increasing complex in successive years. There will be practical experience of working with patients, carers and other healthcare professionals throughout all four years of the programme, primarily through practice-based learning activities. Exposure to patients, carers and other healthcare professionals also occurs in a structured way during University-based activities. Students will meet patients from very early in the programme and will learn communication and consultation skills, and will undertake week-long placements in years 2 and 3 in community and hospital pharmacy, where students can use their skills and progressively build their confidence. There will be inter-professional education (IPE) activities in each year of the new programme, these increasing in complexity and/or volume year on year, and taking place both in the academic setting and during practice-based learning. These activities will be undertaken alongside students of medicine, nursing, psychology and social work and will include a consideration of the roles of different healthcare professions, as well as dealing with inter-professional communication, paediatric prescribing and medicines in elderly patients.</p> <p>The assessment strategy has been designed to ensure that assessments will demonstrate that students meet the standard 10 learning outcomes at the appropriate levels, and that assessments are consistent with safe and effective practice. The integration of science and practice in the curriculum will be reflected wherever possible in the assessments. Assessments, which are used diagnostically, formatively and summatively, utilise a wide range of approaches including multiple choice questions, short answer questions and objective, structured, clinical examinations (OSCEs). In all assessments, students will fail if they do or say anything that is likely to cause patient harm. Harm, for example, in dispensing examinations or in OSCEs, would be reviewed on an individual basis and will be considered by a Clinical Review Group to determine the outcome.</p> <p>The team was satisfied that all of the criteria to meet this standard will be met.</p>
<p>Standard 6 – Support and development for students and trainees</p> <p>Students and trainees must be supported to develop as learners and professionals during their initial education and training.</p>	<p>Students’ personal tutors provide a key support mechanism, providing both pastoral and academic support. Tutorials are normally linked to unit-related assignments to provide an initial structure for meetings. Personal tutors meet their tutees as a group during induction, as well as regularly throughout the degree programme, and also provide the opportunity to meet tutees individually, for example, to provide end-of-semester assessment feedback, or when personal problems arise. There is a peer mentoring system coordinated through the Students’ Union and supervised by the senior tutor, and which is intended to support students during their first semester of study. A peer-assisted learning (PAL) scheme operates, whereby year 4 students support year 3 students and also run mock interview sessions to help prepare students for placement and pre-registration interviews. Several, specialist student support services are available across the University to address, for example, accommodation, emotional difficulties, disability-related matters, finance, general welfare, academic problems, student discipline and complaints, security and personal safety. Skills-training is offered for mathematics, language, communication and in the use of the library, and extensive careers support is available, including support for obtaining pre-registration training places.</p>

	The team was satisfied that this standard will be met.
<p>Standard 7 – Support and development for academic staff and pre-registration tutors</p> <p>Anyone delivering initial education and training should be supported to develop in their professional roles.</p>	<p>Members of staff who teach on the MPharm receive support from the Department and the University and are provided with mentoring if needed. There are opportunities for continuing professional development, and the workload of staff members is reviewed annually. Teaching is peer-reviewed once every two years, with constructive feedback. The appraisal system offers annual supervision of both teaching and research, allowing for the exchange of ideas and peer support. The University's Learning and Teaching Enhancement Office provides a range of courses to support staff in both teaching and research. All staff members are encouraged to pursue their personal/career development needs and there is a University sabbatical system. Members of staff can gain recognition by the Higher Education Academy (HEA) by taking a specific, recognised course (the Bath course) covering teaching and learning, academic practice, curriculum design and development, and research management; participants' teaching is observed during this course. Successful completion of the course is the normal probationary/contractual requirement. Recognition by the HEA can alternatively be achieved by submitting an application based upon reflection on and benchmarking of teaching practice against the UK Professional Standards Framework. There is a University induction programme for all new members of staff and the University's Academic Staff Development Unit offers opportunities to support all aspects of academic practice. New members of staff who are not pharmacists are supported by members of staff working in pharmacy and are introduced to the roles of key pharmacy-related organisations, such as the GPhC and the Royal Pharmaceutical Society.</p> <p>The team was satisfied that all of the criteria to meet this standard will be met.</p>
<p>Standard 8 – Management of initial education and training</p> <p>Education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage</p>	<p>The management of teaching and learning on the MPharm programme is monitored and reviewed by the Department Executive Committee led by the Head of Department; 50% of the members of the Executive Committee are pharmacists. Day-to-day management of the programme is the responsibility of the Director of Teaching, who is supported by the Departmental Learning Teaching and Quality Committee (DLTQC). There are interdisciplinary teams at the unit (module) level, with each unit being managed by a pair of Unit Conveners, normally one pharmacist and one pharmaceutical scientist. A Curriculum Design Group is responsible for the iterative development of the new curriculum, with the DLTQC being responsible for quality assurance aspects of changes to the programme. The management of all teaching and learning that takes place in practice and clinical settings is led by the Director of Practice-Based Learning and there is also a lead for inter-professional education. 'Clinical Learning in Practice' (CLIP) (see standard 5) will be led by four 0.5 FTE Practice Educators, who will be NHS appointees, each based in one of the four local NHS Trusts, and who will also contribute to hospital placements. Quality assurance of all practice-based learning will be managed through the Practice-Based Learning QA Board.</p> <p>The team was satisfied that the criteria to meet this standard will be met.</p>
Standard 9- Resources and capacity	Annual planning is coordinated at Faculty level, so that the departmental resource requirements are incorporated into the

<p>Resources and capacity are sufficient to deliver outcomes.</p>	<p>overall Faculty business plan. Requests for resources additional to the operating budget, including additional space requirements, additional staff or, for example, increased placement costs, go through this process. The financial estimates of income and expenditure are recorded and calculated through the Resource Allocation Model (RAM) operated by the University. The RAM also generates estimates for the next five years at Departmental, Faculty and University level. The University is investing heavily in infrastructure/refurbishment (£1M per week) across all areas to improve and maintain the student experience; this investment is for both modernization of old/tired buildings and growth, and included the new, £26M Chancellors' Building, accommodation for 700 students, and the Centre for Arts. Growth is directed especially at research and postgraduate education, while maintaining undergraduate provision. The Department has a large and well-qualified staff, which includes sufficient pharmacists with experience of teaching in higher education to ensure the production of students equipped to enter pre-registration training, as well as sufficient members of staff suitably qualified to supervise final year projects. There has been a re-profiling of the staff in keeping with the delivery of the new programme; this includes the appointment of a Professor in Health Services Research, a Director of Practice-based learning and four Practice Educators (referred to in standards 2 and 8). Replacement posts in practice had been filled by qualified pharmacists with expertise spanning practice and pharmaceutical sciences. Three clinical consultant rheumatology posts, part funded by a GSK endowment, have been appointed to enhance clinical teaching and provide new translational research opportunities. Additional teaching support is provided by visiting lecturers, as well as research staff members and postgraduate students, along with an experienced group of technical and administrative staff. Currency of clinical practice in relation to teaching is achieved by the team of nine teacher-practitioners, as well as the many academic staff members who also have a practice commitment. The teaching resources, including the library, were described in the documentation. The documentation also described the teaching accommodation, some of which was visited by the team during the event; this included the purpose-built Pharmacy Practice Teaching suite, the recently enlarged pharmacology teaching laboratory, the refurbished/ upgraded sterilization suite, a multi-disciplinary laboratory used for teaching microbiology and extemporaneous dispensing, and space for running student projects. The Pharmacy Practice Teaching suite incorporates consultation rooms and facilities for using patient simulators (SimMan), and all parts of the suite are equipped with SMOTS audio/video recording technology.</p> <p>The team was satisfied that all of the criteria to meet this standard will be met.</p>
<p>Standard 10 - Outcomes</p>	<p>The team scrutinised the learning outcomes by discussions with the teaching staff in two parallel subgroup sessions, in which, rather than addressing all 58 outcomes, nine outcomes were explored in depth; the outcomes discussed were 10.1a, 10.1.e, 10.1.f, 10.2.1.b, 10.2.2.e, 10.2.3b, 10.2.3.c, 10.2.4a, and 10.2.5.d (see Appendix 1). The outcomes discussed were selected by the team and members of the University staff were unaware of the selection until the meeting. For each of the nine outcomes scrutinised in detail, the evidence provided by the discussions with the staff, along with other evidence provided with the documentation, gave the team confidence that these outcomes will be met at the required level. As this selection represented approximately 16 % of the total outcomes, the team was confident that all other outcomes will be similarly met. This view was supported by the documented material for each of the other outcomes, which had also been scrutinised by the</p>

	team. Thus, the team was confident that standard 10 will be met.
Indicative Syllabus	<p>The team was content with the School's use of the Indicative Syllabus to inform its curriculum.</p> <p>The team agreed that the MPharm degree met the requirements of Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications for the initial education and training of pharmacists.</p>

Summary and conclusions

The accreditation team agreed to the Registrar of the General Pharmaceutical Council that the University of Bath should be reaccredited to provide an MPharm degree for a further period of six years, with an interim visit to take place in three years. There were no conditions or recommendations

Standing condition of accreditation:

These are the conditions which will apply in all circumstances of degree accreditation:

1. The school or department of pharmacy always seeks approval from the General Pharmaceutical Council for curriculum amendments and always at least informs the General Pharmaceutical Council of significant changes to pharmacy undergraduate student numbers or resources for their teaching, learning support and assessment, including any change from internal to teaching, learning and assessment from outside the school or department;
2. The school or department of pharmacy produces and submits to the General Pharmaceutical Council annually requested data on student numbers and progression and degree awards;
3. The school or department of pharmacy produces and submits to the General Pharmaceutical Council annually requested information about the extent of human and physical resources it enjoys for the delivery and support of the degree course;
4. The school or department of pharmacy or the university makes students and potential students aware of the existence and Internet address where they can view the General Pharmaceutical Council's summary reports of degree accreditation exercises, main after- actions therefrom and of the timetable for future accreditation exercises.

The *Pharmacy Order 2010* states:

Part 5 Education, training and acquisition of experience and continuing professional development, Information to be given by institutions or other providers, 46. ...

(3) Whenever required to do so by the Council, any institution or other provider to which this article applies must give to the Council such information and assistance as the Council may reasonably require in connection with the exercise of its functions under this Order.

(4) Where an institution or other provider refuses any reasonable request for information made by the Council under this article, the Council may, in accordance with article 47 ('Refusal or withdrawal of approval of courses, qualifications and institutions'), refuse to approve or withdraw approval from, any course of education or training, qualification, test or institution or other provider to which the information relates.

It is a requirement of accreditation that institutions or other providers provide the GPhC proactively and in a timely manner with any information which is, or has the potential to be, material to the delivery of an accredited course. This includes, but is not limited to: changes in staffing, changes in funding, and/or substantial changes in curriculum or delivery.

Reference: <http://www.legislation.gov.uk/uksi/2010/231/contents/made>

Caution: Preregistration and employment as a pharmacist:

- In respect of all students, successful completion of an accredited course is not a guarantee of a placement for a pre-registration year or of future employment as a pharmacist.

Appendix 1 – Standards for the initial education and training of pharmacists

[Note: The parts of the standards shown in grey italics are applicable only to those offering a 5-year MPharm degree with integrated periods of pre-registration training.]

Standard 1 – Patient and public safety

1. There must be clear procedures to address concerns about patient safety arising from pharmacy education and training. Concerns must be addressed immediately.

1.1. There must be effective systems in place to ensure that students *and trainees*:

- 1.1.a do not jeopardise patient safety;
- 1.1.b only do tasks for which they are competent, sometimes under supervision;
- 1.1.c are monitored and assessed to ensure they always practise safely. Causes for concern should be addressed immediately;
- 1.1.d have access to support for health, conduct and academic issues;
- 1.1.e must not be awarded an accredited degree *or pass pre-registration training* if they might pose a risk to patients or the public;
- 1.1.f understand what is and what is not professional behaviour and are familiar with the GPhC's *Code of Conduct for Pharmacy Students (2010) Standards of conduct, ethics and performance (2010)*;
- 1.1.g understand what fitness to practise mechanisms apply to them. All schools of pharmacy must have fitness to practise procedures to deal with student causes for concern;
- 1.1.h undergo required health and good character checks;
- 1.1.i understand that it is an offence to impersonate a pharmacist. Pharmacists are registrants of the GPhC.

Standard 2 – Monitoring, review and evaluation of initial education and training

2. The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic and developmental way.

2.1 There must be systems and policies in place covering :

2.1.a information about roles & responsibilities and lines of accountability;

2.1.b university information on:

2.1.b.i entry requirements;

2.1.b.ii the quality of teaching, learning and assessment;

2.1.b.iii the quality of placements and other practice learning opportunities;

2.1.b.iv appraisal and feedback systems for students and trainees;

2.1.b.v supervision requirements;

2.1.b.vi educational resources and capacity;

These must be monitored, reviewed and evaluated systematically. When an issue is identified it must be documented and dealt with promptly;

2.1.c *pre-registration tutors evaluating trainees. To do this, tutors must have access to reliable evidence about a trainee's performance. Tutors must be competent to assess the performance of trainees;*

2.1.d *the quality and development of pre-registration tutors.*

Standard 3 – Equality, diversity and fairness

3. Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.

3.1 systems and policies for capturing equality and diversity data. Concerns should be documented, addressed and disseminated;

3.2 strategies for staff training in equality and diversity

Standard 4 – Selection of students *and trainees*

- 4. Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students *and trainees* are fit to practise at the point of selection. Selection includes recruitment and admissions.**
- 4.1** Selection process must give applicants the information they need to make an informed application.
- 4.2** Selection criteria must be explicit. They should include:
- 4.2.a** meeting academic and professional entry requirements;
 - 4.2.b** meeting English language requirements appropriate to MPharm degree study. Guidelines issued by English language testing bodies should be followed to ensure that admissions language requirements are appropriate;
 - 4.2.c** meeting numeracy requirements;
 - 4.2.d** taking account of good character checks, such as Criminal Records Bureau (CRB)/Disclosure Scotland checks;
 - 4.2.e** passing health checks (subject to reasonable adjustments being made). Health checks could include self-evaluations and/or evaluations by healthcare professionals;
 - 4.2.f** recognising prior learning, where that is appropriate
- 4.3** Selectors should apply selection criteria fairly. They should be trained to do this. Training should include equality and diversity matters

Standard 5 – Curriculum delivery and the student experience

- 5. The curriculum for MPharm degrees *and the pre-registration scheme* must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students *and trainees* practise safely and effectively. To ensure this, pass criteria must describe safe and effective practice.**
- 5.1** Curricula must be integrated.
- 5.2** Curricula must be progressive, dealing with issues in an increasing more complex way until the right level of understanding is reached.
- 5.3** An MPharm must be delivered in an environment which places study in a professional and academic context and requires students to conduct themselves professionally. *Pre-registration training must be delivered in a professional environment which requires trainees to conduct themselves professionally.*
- 5.4** An MPharm must be delivered in an environment informed by research. This means that whether or not all staff are engaged in research, their teaching must be informed by research.
- 5.5** An MPharm degree teaching and learning strategy must set out how students will achieve the outcomes in Standard 10. Learning opportunities must be structured to provide:

- 5.5.a** an integrated experience of relevant science and pharmacy practice;
 - 5.5.b** a balance of theory and practice;
 - 5.5.c** independent learning skills.
- 5.6** The MPharm degree curriculum must include practical experience of working with patients, carers and other healthcare professionals. Practical experience should increase year on year.
- 5.7** There must be a clear assessment strategy for the MPharm degree. Assessment methods must measure the outcomes in Standard 10.
- 5.8** The MPharm degree assessment strategy should include:
- 5.8.a** diagnostic assessments;
 - 5.8.b** formative assessments;
 - 5.8.c** summative assessments;
 - 5.8.d** timely feedback.
- 5.9** Academic regulations must be appropriate for a degree that is both academic and professional and may lead to further professional training. As a general principle, all assessments must be passed. This means that condonation, compensation, trailing, extended re-sit opportunities and other remedial measures should be extremely limited, if they are permitted at all. MPharm degree academic regulations may be more stringent than university norms. This may include higher than usual pass marks for assessments demonstrating knowledge and skills essential to safe and effective pharmacy practice.
- 5.10** Marking criteria must be used for all assessments and all pass criteria must reflect safe and effective practice.
- 5.11** Patient safety must be paramount in assessments: any evidence of an assessment demonstrating unsafe practise must result in failure.
- 5.12** A pre-registration training plan must describe how the learning outcomes for pre-registration will be delivered.
- 5.13** A pre-registration training plan must describe all assessments, including tutor evaluations and tutor sign-offs.

Standard 6 – Support and development for students *and trainees*

6. Students *and trainees* must be supported to develop as learners and professionals during their initial education and training.

6.1. A range of mechanisms must be in place to support students *and trainees* to develop as learners and professionals.

Standard 7 – Support and development for academic staff *and pre-registration tutors*

7. Anyone delivering initial education and training should be supported to develop in their professional roles.

7.1. There must be a range of mechanisms in place to support anyone delivering initial education and training to develop in their role.

7.2. Induction programmes are provided *for tutors* and university staff as appropriate. This should include induction programmes for non-pharmacists working on MPharm degrees.

7.3. Everyone involved in delivering the curriculum should have:

7.3.a effective supervision;

7.3.b an appropriate and realistic workload;

7.3.c effective personal support;

7.3.d mentoring;

7.3.e time to learn;

7.3.f continuing professional development opportunities.

7.4. *Tutors have an identified source of peer support.*

Standard 8 – Management of initial education and training

8. Initial pharmacist education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage

8.1. All education and training will be supported by a defined management plan with:

8.1.a a schedule of responsibilities

8.1.b defined structures and processes to manage the delivery of education and training

Standard 9 – Resources and capacity

9. Resources and capacity are sufficient to deliver outcomes.

9.1 There must be:

9.1.a robust and transparent mechanisms for securing an appropriate level of resource for delivering an accreditable MPharm degree;

9.1.b sufficient staff from relevant disciplines to deliver the curriculum to students *and trainees*. Staff must be appropriately qualified and experienced. The staffing profile must include:

9.1.b.i sufficient numbers of pharmacists – registrants of the GPhC – with experience of teaching in higher education to ensure that an MPharm degree can produce students equipped to enter pharmacist pre-registration training in Great Britain.

9.1.b.ii sufficient numbers of pharmacists to act as tutors and professional mentors at university *and in pre-registration*. Not all personal tutors must be pharmacists.

9.1.b.iii pharmacists who are leaders in the profession and in their university, who can influence university policy relevant to pharmacy

9.1.b.iv non-pharmacist academics who can influence school and university policy relevant to pharmacy

9.1.b.v staff who are sufficiently experienced to supervise research. It would be unusual for anyone to supervise research at a particular level unless they had researched to that level or beyond. New research supervisors must be mentored and signed off as being fit to supervise after a period of mentoring

9.1.b.vi science academics who understand the relevance of their discipline to pharmacy and deliver their area of expertise in a pharmaceutical context

9.1.b.vii academic pharmacists and other experienced MPharm degree staff who are able to act as mentors to non-pharmacist colleagues

9.1.c pre-registration tutors who meet the GPhC's standards for pre-registration tutors.

9.1.d career pathways in universities for all staff teaching on MPharm degrees, including pathways for practice staff

9.1.e clear lines of authority and responsibility for the strategic organisation and day-to-day management of placements

9.1.f training and ongoing support for all non-pharmacists involved in the delivery of MPharm degrees which must help them understand:

9.1.f.i help and understand the relevance of their work to pharmacy

9.1.f.ii how to deliver their area of expertise in a pharmaceutical context

9.1.g appropriate learning resources

9.1.h accommodation and facilities that are fit for purpose

9.1.i pre-registration premises which meet the GPhC's standards for pre-registration premises

Standard 10 - Outcomes

10.1 Expectations of a pharmacy professional

Learning outcome	MPharm	Pre-reg
10.1.a Recognise ethical dilemmas & respond in accordance with relevant codes of conduct and behaviour	Shows how	<i>Does</i>
10.1.b Recognise the duty to take action if a colleague's health, performance or conduct is putting patients or public at risk	Knows how	<i>Knows how</i>
10.1.c Recognise personal health needs, consult and follow the advice of a suitably qualified professional, and protect patients or public from any risk posed by personal health	Does	<i>Does</i>
10.1.d Apply the principles of clinical governance in practice	Knows how	<i>Does</i>
10.1.e Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices	Shows how	<i>Knows how</i>
10.1.f Contribute to the education and training of other members of the team, including peer review and assessment	Shows how	<i>Does</i>
10.1.g Contribute to the development of other members of the team through coaching and feedback	Knows how	<i>Shows how</i>
10.1.h Engage in multidisciplinary team working	Knows how	<i>Does</i>
10.1.i Respond appropriately to medical emergencies, including provision of first aid	Knows how	<i>Shows how</i>

10.2 The skills required in practice

10.2.1 Implementing health policy

Learning outcome	MPharm	Pre-reg
a. Promote healthy lifestyles by facilitating access to and understanding of health promotion information	Shows how	<i>Does</i>
b. Access & critically evaluate evidence to support safe, rational & cost effective use of medicines	Shows how	<i>Knows how</i>
c. Use the evidence base to review current practice	Shows how	<i>Does</i>
d. Apply knowledge of current pharmacy-related policy to improve health outcomes	Knows how	<i>Shows how</i>
e. Collaborate with patients, the public and other healthcare professionals to improve patient outcomes	Knows how	<i>Shows how</i>
f. Play an active role with public and professional groups to promote improved health outcomes	Knows how	<i>Knows how</i>
g. Contribute to research & development activities to improve health outcomes	Knows how	<i>Knows how</i>
h. Provide evidence- based medicines information	Shows how	<i>Does</i>

10.2.2 Validating therapeutic approaches and supplies prescribed and over-the-counter medicines

Learning outcome	MPharm	Pre-reg
a. Identify and employ the appropriate diagnostic or physiological testing techniques in order to promote health	Knows how	<i>Shows how</i>
b. Identify inappropriate health behaviours and recommend suitable approaches to interventions	Shows how	<i>Does</i>
c. Instruct patients in the safe and effective use of their medicines and devices	Shows how	<i>Does</i>
d. Analyse prescriptions for validity and clarity	Shows how	<i>Does</i>
e. Clinically evaluate the appropriateness of prescribed medicines	Shows how	<i>Does</i>
f. Provide, monitor and modify prescribed treatment to maximise health outcomes	Shows how	<i>Does</i>
g. Communicate with patients about their prescribed treatment	Shows how	<i>Does</i>
h. Optimise treatment for individual patient needs in collaboration with the prescriber	Shows how	<i>Does</i>
i. Record, maintain and store patient data	Shows how	<i>Does</i>
j. Supply medicines safely and efficiently, consistently within legal requirements and best professional practice. NB This should be demonstrated in relation to both human and veterinary medicines.	Shows how	<i>Does</i>

10.2.3 Ensuring safe and effective systems are in place to manage risk inherent in the practice of pharmacy and the delivery of pharmaceutical services

Learning outcome	MPharm	Pre-reg
10.2.3.a. Ensure quality of ingredients to produce medicines and products	Knows how	<i>Shows how</i>
10.2.3.b. Apply pharmaceutical principles to the formulation, preparation and packaging of products	Shows how	<i>Shows how</i>
10.2.3.c. Verify safety and accuracy utilising pharmaceutical calculations	Does	<i>Does</i>
10.2.3.d. Develop quality management systems including maintaining appropriate records	Shows how	<i>Shows how</i>
10.2.3.e. Manage and maintain quality management systems including maintaining appropriate records	Shows how	<i>Does</i>
10.2.3.f. Procure and store medicines and other pharmaceutical products working within a quality assurance framework	Knows how	<i>Does</i>
10.2.3.g. Distribute medicines safely, legally and effectively	Knows how	<i>Does</i>
10.2.3.h. Dispose of medicines safely, legally and effectively	Knows how	<i>Does</i>

10.2.3.i.	Manage resources in order to ensure work flow and minimise risk in the workplace	Knows how	<i>Shows how</i>
10.2.3.j.	Take personal responsibility for health and safety	Does	<i>Does</i>
10.2.3.k.	Work effectively within teams to ensure safe and effective systems are being followed	Knows how	<i>Does</i>
10.2.3.l.	Ensure the application of appropriate infection control measures	Shows how	<i>Does</i>
10.2.3.m.	Supervise others involved in service delivery	Knows how	<i>Does</i>
10.2.3.n.	Identify, report and prevent errors and unsafe practice	Shows how	<i>Does</i>
10.2.3.o.	Procure, store and dispense and supply veterinary medicines safely and legally	Knows how	<i>Knows how</i>

10.2.4 Working with patients and the public

Learning outcome	MPharm	<i>Pre-reg</i>
a. Establish and maintain patient relationships while identifying patients' desired health outcomes and priorities	Shows how	<i>Does</i>
b. Obtain and record relevant patient medical, social and family history	Shows how	<i>Does</i>
c. Identify and employ the appropriate diagnostic or physiological testing techniques to inform clinical decision making	Knows how	<i>Shows how</i>
d. Communicate information about available options in a way which promotes understanding	Shows how	<i>Does</i>
e. Support the patient in choosing an option by listening and responding to their concerns and respecting their decisions	Shows how	<i>Does</i>
f. Conclude consultation to ensure a satisfactory outcome	Shows how	<i>Does</i>
g. Maintain accurate and comprehensive consultation records	Shows how	<i>Does</i>
h. Provide accurate written or oral information appropriate to the needs of patients, the public or other healthcare professionals	Shows how	<i>Does</i>

10.2.5 Maintaining and improving professional performance

Learning outcome	MPharm	<i>Pre-reg</i>
a. Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct and behaviour	Does	<i>Does</i>
b. Reflect on personal and professional approaches to practice	Does	<i>Does</i>
c. Create and implement a personal development plan	Does	<i>Does</i>
d. Review and reflect on evidence to monitor performance and revise professional development plan	Does	<i>Does</i>
e. Participate in audit and in implementing recommendations	Knows how	<i>Shows how</i>

f. Contribute to identifying learning and development needs of team members	Knows how	<i>Does</i>
g. Contribute to the development and support of individuals and teams	Knows how	<i>Does</i>
h. Anticipate and lead change	Knows how	<i>Shows how</i>

Indicative syllabus

A1.1 How medicines work

Therapeutics

- Routes of administration
- New therapeutic advances
- Infection control
- Complementary therapies
- Clinical therapeutic uses of drugs

Applied Physical, Chemical and Biological sciences

- Sources and purification of medicinal substances
- Physicochemical characteristics of drugs and biological systems
- Thermodynamics and chemical kinetics
- (Bio)Analytical principles and methods
- Drug design and discovery
- Cell and molecular biology
- Biochemistry
- Genetics
- Microbiology
- Immunology
- Pharmaceutical chemistry
- Drug identification
- Drug synthesis

Pharmacology, pharmacokinetics & pharmacodynamics

- Contraindications, adverse reactions and drug interactions
- ADME
- Prediction of drug properties
- Pharmacogenetics and pharmacogenomics
- Drug and substance misuse
- Clinical toxicology and drug-over-exposure
- Molecular basis of drug action
- Metabolism

Pharmaceutical technology including manufacturing & engineering science

- Biotechnology
- Manufacturing methods
- Quality assurance processes
- Sterilisation and asepsis
- Environmental control in manufacturing

Formulation and material science

- Materials used in formulations and devices
- Biopharmaceutics, developmental pharmaceuticals, pre-formulation and formulation studies
- Design and standardization of medicines
- Microbiological contamination
- Contamination control
- Product stability
- Medical devices

A1.2 How people work

Normal & abnormal structure & function

- Nutrition
- Physiology
- Pathology
- Infective processes

Sociology

- Social and behavioural science

Health psychology

- Health promotion
- Disease prevention
- Behavioural medicine

Objective diagnosis

- Differential diagnosis
- Symptom recognition
- Diagnostic tests

Epidemiology

- Aetiology and epidemiology of (major) diseases

A1.3 How systems work

Healthcare management

- Public health
- Organisations: NHS, DH, govt priorities
- Other professionals
- Health care systems

Evidence-based practice

- Health information systems/ resources
- Health policy and (pharmaco)economics

Professional regulation

- Legislation
- Professional ethics and fitness to practise
- Sale and supply of medicines
- CPD
- Political and legal framework

Medicines regulation

- Evaluation and regulation of new drugs and medicines
- Pharmacopoeial specifications and biological standards
- Medicines licensing
- Product quality, safety and efficacy
- The supply chain
- Packaging, labelling and patient information

Clinical governance

- SOPs
- Research methodology / research ethics
- Risk & quality management
- Good manufacturing/dispensing practice
- Good clinical practice
- Health policy, clinical and science research methods

Clinical management

- Disease management
- Chronic medicines management
- Medicines use review
- Care planning

Workplace Regulation

- Health & Safety
- Sexual boundaries
- Independent Safeguarding Authority
- Data protection
- FOIA
- Consumer protection incl. complaints procedures

A1.4 Core and transferable skills

Professionalism

Research and research methods

Critical appraisal

- Audit and learning from errors

Problem solving

- Study skills
- Team-working skills

Clinical decision making

- Leadership skills

Accurate record keeping

Reflective practice (incl. continuing professional development)

Effective communication

- Interpersonal skills
- Medical terminology

Interpret & interrogate clinical data

Analyse & use numerical data

Pharmaceutical numeracy

Technological literacy

A1.5 Attitudes and values

See the GPhC *Code of Conduct for pharmacy students (2010)* and *Standards of conduct, ethics and performance (2010)*

Following the above reaccreditation event, the Registrar of the General Pharmaceutical Council agreed with the accreditation team's recommendation and approved the MPharm degree at the University of Bath to be reaccredited for a further period of six years. Reaccreditation will take place in six academic years' time; with an interim visit in three academic years' time (2018-19).