Reaccreditation of a Master of Pharmacy degree course (MPharm)

Medway School of Pharmacy, Universities of Kent & Greenwich

Report of a reaccreditation event, 14-16 May 2013

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 Medway School of Pharmacy was established as a collaborative venture between the University of Greenwich and the University of Kent. The School of Pharmacy is one of seven schools of the University of Kent Faculty of Science. In 2009, the University of Kent became the Primary Administering University (PAU) in accordance with the Memorandum of Understanding between the Universities of Kent and Greenwich. This states that the normal expectation is that PAU responsibilities are handed over to the partner institution at the end of the fifth year. Prior to this and from its inception in 2004, the University of Greenwich was the PAU and will be again from 2014 for the following 5 years unless otherwise agreed by the two universities.
The current MPharm programme was accredited by the former regulator, the Royal Pharmaceutical Society of Great Britain (RPSGB) according to its seven step annual accreditation procedure for new schools. The School of Pharmacy accepted its first cohort of students onto the MPharm programme in September 2004 and final accreditation of the programme was achieved following a successful step 7 visit in March 2008, subject to four conditions. The team also made a recommendation. The conditions and recommendations, as well as the School’s responses, are summarised below. (As this reaccreditation was undertaken against the old standards, reference is made to the relevant GPhC standard). Following the confirmatory visit in June 2008, the School achieved the status of an existing school of pharmacy with a fully accredited MPharm, accredited for a full period of five years.

Conditions

i. The School should revise pass/fail criteria to ensure that all borderline pass criteria describe characteristics of passes unambiguously. The School subsequently modified the criteria accordingly (Standard 5.9).

ii. The School should revise the use of the regulations which allowed compensation of up to 30 credits at 30-34% in any assessment diet; the accreditation team did not agree that the latitude afforded by this regulation was appropriate or desirable in the context of a professional degree leading to registration as a safe healthcare practitioner. The School Academic Regulations were updated to allow compensation to be applied only if the mark for an individual module fell within 5% of the pass mark (i.e. 35-39%). However, the regulations for the new MPharm do not permit any compensation or condonement (Standard 5.9).

iii. The School should ensure that all students who graduate with an MPharm have passed 120 credits at M level, to comply with the minimum credit requirements for second cycle exit awards recognised in the Framework for Qualifications in the European Higher Education Area. This was so that the RPSGB could reassure other pharmacy competent authorities in the European Union that MPharm degrees are of a comparable standard to the qualifications they accredit, and Bologna-compliant, for mutual recognition purposes. The School amended the Academic Regulations to clarify that the MPharm programme at Medway requires 120 credits for students to pass at the M level. The new Academic Regulations require all students to attain 120 credits at each level in order to pass or graduate.

iv. The School should implement derogation from the then current regulations to ensure that MPharm students cannot graduate with 25% of the entire course – 120 credits – having been condoned. The precise nature and extent of the derogation was left to the School but this was to ensure that all students entering pre-registration training have actually demonstrated their competence as undergraduates. The School amended the regulations accordingly, but as in response to condition (ii), no compensation or condonation is now allowed (Standard 5.9).

Recommendations

The School was recommended to monitor the progression of Foundation Degree students on the MPharm to establish whether there is any significant variation in performance between MPharm Year 1 entrants and Foundation Degree direct entrants into the MPharm Year 2. The School is committed to monitoring the performance of the Foundation Degree students as they progress through the MPharm programme and has provided relevant information to the RPSGB (now to the GPhC) in its annual return. The School now no longer offers the Foundation Degree as an entry route to the MPharm. Moreover, there is now no direct entry to Year 2.
Continuing students and the new MPharm

The course to be reaccredited is a new MPharm programme, designed to meet the GPhC standards. The new MPharm curriculum is underpinned by sound educational theories and the School intends to ensure that continuing students will benefit from some of the new initiatives and new ways of teaching that are to be introduced from September 2013. These include inter-professional education events for students at stage 3; the first event is planned for November 2013 and will involve students’ engagement in inter-professional activities with others from nursing, midwifery, social work, speech and language therapy as well as paramedics and counsellors working with service users. The new stage 4 Integrated Patient Care module will start in September 2013, to better prepare students for practice. Continuing students will also benefit from the enhanced academic adviser programme, with its timetabled tutorial sessions and from the School’s engagement with the Student Learning Advisory Service to provide study skills specifically for Pharmacy. The new stringent regulations will apply to all students from academic year 2013-14, to ensure the production of MPharm graduates who are able to demonstrate the required competencies. Continuing students who fail modules in the May exam will be offered resits in the August diet, in accordance with the current academic regulations. A student at stage 2 in 2013-14, who subsequently fails the resit in August 2014 but has concessionary evidence accepted, may be offered a re-assessment opportunity. Due to the introduction of the new MPharm, early resits (September 2014) will be considered by the board of examiners.

A reaccreditation event was scheduled for May 2013; the outcome of this event is outlined within this report.

Documentation

The provider submitted submission documentation to the GPhC in line with agreed timescales and a pre-visit took place at the Medway School of Pharmacy on 12 April 2013. During the pre-visit the schedule of meetings and timings for the reaccreditation event were confirmed and the GPhC requested that a number of documents, including an updated commentary on standard 10, be submitted ready for the event.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 14 May 2013. The remainder of the event took place on site at the Medway School of Pharmacy on 15-16 May 2013, and comprised a series of meetings with staff of the University and included a tour of the University facilities. The team also met a group of students/former students of the School comprising one from year 2, five from year 3, one from year 4, two pharmacists who had graduated in 2011, one pre-registration trainee, and one student from year 2 of the Foundation Degree.
Accreditation team

The GPhC’s accreditation team (‘the team’) comprised:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation at the time of accreditation event</th>
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<tbody>
<tr>
<td>Professor Ian Marshall*</td>
<td>Accreditation team leader, Emeritus Professor of Pharmacology, University of Strathclyde</td>
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<tr>
<td>Professor Bill Dawson</td>
<td>Accreditation team member (Academic-Practice), Bionet Ltd; industrial pharmacist, former academic pharmacist</td>
</tr>
<tr>
<td>Professor Brenda Costall¥</td>
<td>Accreditation team member (Academic), Professor of Neuropharmacology, former Head of School of Pharmacy, University of Bradford</td>
</tr>
<tr>
<td>Professor James McElnay</td>
<td>Accreditation team member (Academic), Pro-Vice-Chancellor (Research and Postgraduates), Queen's University Belfast</td>
</tr>
<tr>
<td>Ms Raminder Sihota</td>
<td>Accreditation team member (Pharmacist), Senior Professional Learning &amp; Development Manager, Boots UK</td>
</tr>
<tr>
<td>Dr Gill Hawksworth</td>
<td>Accreditation team member (Pharmacist), Senior Lecturer, School of Pharmacy, University of Huddersfield</td>
</tr>
<tr>
<td>Mrs Sylvia Hikins</td>
<td>Accreditation team member (Lay member), Non-Executive Director &amp; Vice Chair for Urgent Care 24</td>
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along with:

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<th>Name</th>
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<tr>
<td>Ms Joanne Martin *</td>
<td>Quality Assurance Manager (Education), General Pharmaceutical Council</td>
</tr>
<tr>
<td>Professor Brian Furman</td>
<td>Rapporteur, Emeritus Professor of Pharmacology, University of Strathclyde</td>
</tr>
<tr>
<td>Sandra Hall</td>
<td>Observer, Head of Pharmacy Practice, Leicester School of Pharmacy, De Montfort University</td>
</tr>
<tr>
<td>Professor Chris Langley</td>
<td>Observer, Professor of Pharmacy Law and Practice and Deputy Head of School, Aston University</td>
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*Attended pre-visit meeting on 12 April 2013

¥Substituted for Professor McElnay

Professor McElnay had submitted questions beforehand; however, personal circumstances prevented him from participating in the event.

Declaration of potential conflicts of interest

Professor Dawson has been on the Science Advisory Board in the School of Science at the University of Greenwich; the team agreed that this did not represent a conflict of interest.
### Meeting the accreditation standards

#### Accreditation team’s commentary

<table>
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<tr>
<th>Standard 1 – Patient and public safety</th>
<th>The documentation described how the philosophy underpinning the MPharm programme ensures that patient and public safety issues are addressed throughout, embedding the culture of patient safety from day one. The School operates a robust fitness to practise policy in accordance with GPhC, and all students and staff members are aware of both the Code of Conduct for pharmacy students and the GPhC standards of Conduct, Ethics and Performance. All students must sign up to the GPhC Code of Conduct for pharmacy students and are reminded of it annually, along with the standards expected of a pharmacy professional; They must sign a declaration that they remain of good character and health or make a self-declaration concerning any incident/s of concern. Students are not permitted to undertake any placements unless an enhanced Criminal Records Bureau (CRB) check and occupational health screenings have been completed. Prior to attending practice placements, all students receive a briefing concerning relevant health and safety requirements, as well as issues relating to patient and public safety. Where matters arise that give cause for concern in relation to a student’s health or conduct, the facts are reviewed and if considered to be of a sufficiently serious nature, will be referred to the relevant committee; students are not allowed to continue on the MPharm programme if they are deemed to pose a risk to patients or the public. All members of staff are familiar with professional practice and behaviour. The team was satisfied that this standard will be met.</th>
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<tr>
<td>Standard 2 – Monitoring, review and evaluation of initial education and training</td>
<td>The Medway School of Pharmacy was established in 2004 as a joint initiative between the Universities of Greenwich and Kent. For the first five years, the University of Greenwich was the Primary Administering University (PAU). As agreed in the original memorandum of understanding, the role of PAU was transferred to University of Kent in the summer of 2009, with Kent systems now being used. Thus the Quality Management Structures for Taught Programmes is as described in the University of Kent code of practice for quality assurance. The overarching management structure of the School involves a Joint Pharmacy Planning Group (JPPG). This is an autonomous group whose membership represents the interests of both universities and is the only point of reference for all policy decisions relating to pharmacy. It comprises senior members of both universities including a Senior Manager from each institution, who is responsible for the academic approval process of the University. This committee is responsible for planning and resourcing of the School of Pharmacy; the Group meets regularly, normally monthly. As a joint School, the management structure has been designed to ensure communication and integration between the two universities, and to assure the mechanism of communication between the School and the professional regulatory body. The universities had started to look how other institutions organised similar joint ventures, such as medical schools, but currently, the PAU role will revert to the University of Greenwich in 2014. The documentation stated that there is a School Board chaired by the Head of School, with representation from students and</td>
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from both of the universities; its membership includes, among others, the Director of Learning and Teaching, the MPharm Programme Leader and the admissions tutor. The board is responsible to the Joint Pharmacy Planning Group, and hence to Senate and Academic Council. All actions by the School are subject to GPhC, Senate and Council’s approval and to the regulations of both institutions. Its responsibilities include providing an overview of the quality of academic provision within the School, developing effective support for students, monitoring formal assessment and examination processes, developing and promoting good practice in relation to teaching, learning and assessment, and submission of recommendations relating to the academic structure and organisation of the School. The three committees of the School Board are the Learning and Teaching (L&T), Research and Enterprise; and Health and Safety committees. The Learning & Teaching Committee, which is chaired by the Director of Learning and Teaching, advises the School Board on all aspects of quality and learning within the School. Currently, the Director of Learning and Teaching also acts as the Programme Leader. The Student Staff Liaison Committee and the Learning Resources Committee also report through the L&T Committee structure. The Learning Resources Committee monitors the provision of learning resources and addresses any matters raised by students concerning the provision of learning resources.

The team was satisfied that this standard will be met.

### Standard 3 – Equality, diversity and opportunity

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

Both institutions are firmly committed to the prevention of discrimination and the advancement of equality for both staff and students and have robust systems in place to support this commitment. The Universities track equality and diversity issues through a systematic collection of relevant data and the undertaking of equality impact assessments on their policies and procedures, enabling identification of problems that need to be resolved. The School observes the University of Kent Equality and Diversity policy, which seeks to ensure that no persons, including students, are privileged or subject to less favourable treatment on the grounds of gender, marital status, sexual orientation, family circumstance, colour, race, ethnic or national origin, disability (physical or mental), political or religious beliefs, age, or any other distinction. All School policies are subject to Equality and Diversity considerations. Thus, teaching, learning and ancillary facilities are organised to ensure practical and reasonable equality of access, where this will enhance the learning experience, through curricula, which are accessible, relevant, appropriate and responsive to diverse student needs. Due to a lower representation of women in senior positions in the Sciences Faculty, the University of Kent recently signed to the Athena Swan charter and is about to submit for a Bronze Award. The School is committed to the principles of the Athena Swan charter and the School intends to apply for an award in the near future.

All members of academic staff must undertake an online training module in equality and diversity. This module introduces staff to the equalities legislation and aids their understanding of their responsibilities and rights as members of staff. Evidence of meeting this essential requirement is tracked at school level. Those members of academic staff who are involved in admissions must also take the ‘Equality and Diversity in Recruitment & Selection’ training. The University of Kent provides a range of additional training courses for staff with a particular interest in equality and diversity.
| Standard 4 – Selection of students and trainees | Prospective students are required to demonstrate basic literacy and numeracy skills as evidenced by GCSE grade B (or above) in English Language and grade B (or above) in Mathematics. At A-level, students are required to obtain 320 UCAS Tariff points (including 2 science based subjects, one of which must be Chemistry at grade B or above). Equivalent requirements are specified for applicants presenting other qualifications such as BTEC National Diploma in Applied Science, Scottish Highers, the Irish Leaving Certificate and the International Baccalaureate. Overseas applicants are assessed on an individual basis and must have an appropriate English language qualification. Applicants meeting the entry criteria are invited for interview with an academic member of staff at one of the School’s Open Days; each interview is conducted using an interview sheet with pre-set questions, which include questions on numeracy. Any borderline applicants are interviewed only by the Head of School, The Admissions Tutor or the Head of Clinical and Professional Practice. Overseas applications are processed in a similar manner, except that the interviews take place over the telephone with the Admissions Tutor. All offers are subject to satisfactory Criminal Records Bureau (CRB). CRB Checks are specified on the School website. The University of Kent Policy is followed. All offers are subject to satisfactory, relevant health checks. |
| The team was satisfied that this standard will be met. |}

| Standard 5 – Curriculum delivery | The new MPharm curriculum is an outcomes-focused curriculum. It is based around three themes integrated around selected body systems that form the basis of the core curriculum. The themes are theme 1 - Heart, Renal, Endocrine, Nutrition, theme 2 - Joints, infection, Lungs, Cancer, Skin and theme 3 - Brain, Psychiatry, Eyes. These themes are underpinned by a first year, in which students are introduced to the foundational sciences of medicinal products, molecules, cells and body systems, as well as to the professional skills required for pharmacy practise. The curriculum is designed to break down barriers between disciplines, helping students to learn more effectively. Integration within and across stages is further strengthened by the appointment of joint cross-disciplinary module convenors. The module convenors are responsible for ensuring appropriate progression of learning and assessment. Teaching will be further integrated through facilitating students’ exposure to contextualised basic and applied science and professional practice. This will be supported by an increasing focus on practice-related learning as evidenced by placements and in-house, simulation-based learning and additional practice experience provided by dispensing support pharmacists and teacher practitioners. Students will therefore be better able to make meaningful connections across subject areas, ultimately acquiring the knowledge and skills they will need for future practice. Fortnightly integration sessions starting in the spring term at stage 1, will involve students working in small teams supported by appropriate multidisciplinary facilitators. The sessions will include in-class discussions of patient-focused clinical cases and the scientific basis for the use of medicines for selected conditions. Stage 4 is taught at Masters Level, with students engaging in scholarly activities through an in-depth research project in their chosen discipline. They will also study an advanced science elective of their choice. In addition, they will be required to demonstrate higher order thinking skills as they undertake a core advanced practice “Integrated Patient Care” module. Students at this stage will be |
expected to have acquired key skills and be able to demonstrate the ability to deal with complex patients in the absence of complete information, thus demonstrating the competencies required for an MPharm graduate entering pre-registration training. Assessments are outcomes focused, promoting effective learning and acquisition of the GPhC competencies, and allowing students to demonstrate the expected outcomes. These assessments include formal written examinations involving long answer essay questions and multi-format multiple choice questions, open book examinations, oral and poster presentations, dissertations, numeracy tests, dispensing examinations, practical assessments, objective structured clinical examinations (OSCEs) and short projects. Patient safety is at the core of the decision making process with regard to student progression; many assessments which are designed to test professional skills, attitudes and competencies are marked on pass or fail basis. Such pass/fail assessments include the OSCEs, clinical prescription reviews and dispensing practical examinations. Students are expected to show how they will perform as ‘independent’ pharmacists in a real life setting. Any activity that is considered to put patients at risk will result in an automatic fail.

Students will be exposed to a variety of clinical practice experiences onsite, in community and hospital pharmacy sites. Placements are extensively integrated into the curriculum, during which students have the opportunity to interact and engage with inter-professional healthcare practitioners thus gaining an understanding of the role of pharmacists in the healthcare arena. Inter-professional education opportunities will be delivered through annual conferences involving students from a range of health disciplines on the Medway campus.

The team was satisfied that this standard will be met.

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<th>Standard 6 – Support and development for students and trainees</th>
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<td>Students and trainees must be supported to develop as learners and professionals during their initial education and training.</td>
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<td>All new students take part in an induction programme, which includes introductions to the two universities and to the School, and provides an insight into academic and support services, including the library, computing, laboratories, student welfare, financial services and careers advice. The front line of academic support is delivered within formal contact time. Attendance at all timetabled classes is monitored, and provides an early warning of individual cases of difficulty so that appropriate action may be taken. Pastoral support for the students at the School of Pharmacy comes in two forms: academic advisers within the School of Pharmacy, and support from the University of Kent Student Learning and Advisory service. Within the School, a Personal Academic Support System (PASS-PLUS) is well established and includes all members of the academic team. Each student is allocated an academic adviser on their first arrival; this is their first-line point of contact for advice or feedback on their personal progress and academic guidance. The University of Kent Student Learning Advisory Service (SLAS) provides a free, friendly advice service that offers guidance and information on all aspects of effective learning and study skills to all students from the start of their studies at the University until graduation. This includes mathematics and statistics support, and help with writing skills, as well as individual and confidential advice and study guidance. Support is also offered to students through the Academic Peer Mentoring (APM) Scheme, which is a partnership between the Student Learning Advisory Service and the School. The aim of the APM scheme is to improve student learning and thus effectively</td>
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improve performance and retention. It helps to promote and encourage student-centred learning with second and third year students (mentors) helping and supporting other students (mentees), in their first year. High performing pharmacy students have volunteered, and have been trained to act as peer mentors/student leaders.

The team was satisfied that this standard will be met.

| Standard 7 – Support and development for academic staff and pre-registration tutors |
| Anyone delivering initial education and training should be supported to develop in their professional roles. |
| The University of Kent's Unit for the Enhancement of Learning and Teaching runs the Post Graduate Certificate in Higher Education (PGCHE) 60-credit programme for new academics. This is designed to support the development of their knowledge and skills as a teacher and researcher taking different levels of previous experience into account, with academics being able to choose modules relevant to their work and interests. The programme aims to enhance their understanding of the principles of effective teaching and research in higher education, effectively applying them in their practical teaching and research. Teacher Practitioners are required to undertake the Associate Teacher Accreditation Programme (ATAP); this is a one-year programme studying two core PGCHE modules in order to gain 30 credits. The School employs dispensing support pharmacists (DSP) who work alongside academic and technical staff. New DSPs undergo induction to the school and its MPharm programme. They are provided with tutor support packs for each teaching session. Experienced DSPs are offered the opportunity to undertake the ATAP to support the development of their role. |
| All new staff members engage with the University of Kent induction programme which aims to assist new staff members to understand the culture of the university, gain an awareness of its key policies and practices and become accustomed to the working environment. The induction focuses on their roles, to ensure that they have an understanding of the expectations, duties and activities. New members of staff also receive the School induction pack, which outlines the work of the School, providing orientation and professional context for non-pharmacists; they are also allocated an appropriate staff member from the existing staff pool to acts as their ‘buddy’. In addition, non-pharmacists working on the MPharm are introduced to a variety of GPhC policies and standards that govern the initial education and training of pharmacists. These include the education standards, as well as the fitness to practice policy and the Code of Conduct for Pharmacy Students. Staff development seminars are held, during which non-pharmacist staff members are introduced to the work of pharmacists in a variety of settings. All new staff members are allocated a staff mentor. The mentoring role is further shared between the buddy nominated at induction and the probationary supervisor. |
| Academic members of staff are managed by their group leads with whom they have regular access and contact. Group leads are responsible for conducting probationary reviews for new staff as well as annual appraisals for permanent staff following University of Kent guidelines. The group research lead also feeds into the appraisal process for research active staff, ensuring that goals are set across the full academic contract. These appraisals aim to provide guidance or training and development needed to enhance future performance and professional capabilities, to review and to share feedback upon performance achievement/outcomes against agreed objectives, and plans for future performance, by agreeing individual objectives and |
priorities which will contribute to the enhancement of team, department/school and university performance.

The team was satisfied that this standard will be met.

**Standard 8 – Management of initial education and training**

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

The new MPharm programme is made up of a number of modules. Each module is managed by a module convener or joint module conveners (science and practice), who have the primary responsibility to ensure the delivery of high quality learning and teaching within their modules, supported by the Head of School, MPharm programme leader and the Director of Learning & Teaching. Additionally, the delivery of the new MPharm curriculum will be guided by the two members of academic staff who have led the curriculum redesign process; they will be responsible for oversight and scrutiny of all learning, teaching and assessments and their main task will be to ensure the integration of content, as well as contextualisation to aid student learning. Prior to the commencement of teaching, module convenors will produce module guides based upon the module specifications approved by the Faculty. The module outlines will centre on the needs of the students, and will include the module calendar and relevant organisational detail, a synopsis of lecture, practical and workshop topics, information about the aims and outcomes of the module and its transferable skills content and assessment information, including marking criteria for all types of assessments. Students will be informed that attendance at all teaching sessions, including lectures, laboratory sessions, tutorials and placements is compulsory, and that attendance will be tracked.

The team was satisfied that this standard will be met.

**Standard 9- Resources and capacity**

Resources and capacity are sufficient to deliver outcomes.

The Joint Pharmacy Planning Group (JPPG) is responsible for agreeing the business plan developed by the School. The JPPG also agrees the budget each year and monitors the actual income and forecast at each meeting. Medway School of Pharmacy currently has 39 academic staff including 34 (32.1 FTE) contracted staff and 5 (3.2 FTE) seconded staff. Seconded staff members include 3 joint NHS teacher practitioners and 2 lecturers. Academic members of staff currently teach across a range of modules, and all will teach into relevant integrated modules on the new MPharm. The school also uses a number of Dispensing Support Pharmacists as sessional staff, especially to support dispensing sessions. Of the thirty-nine members of Pharmacy academic staff, twenty-three (59%) are pharmacists and there is one nurse. A significant number of the pharmacists in the team have senior level experience in various sectors covering community pharmacy, hospital pharmacy, and industry.

The Learning Resources Centre (LRC) at Medway is recognised as an excellent resource and the School has spent significant funds in ensuring that it is stocked with appropriate texts and online resources. The LRC, which feeds into the Learning and Teaching Committee, is responsible for ensuring the adequacy of provision of learning resources for the MPharm programme. The LRC deals with library issues and the availability of learning material on the virtual learning environment (Moodle). There has been extensive capital investment within the buildings, including the purchase of equipment to support the teaching of the MPharm. The business plan for the future provides for consumables to allow for the continued delivery of
practical sessions where appropriate, as well as the use of simulations and face to face interactions with expert patients. The School continues to get priority use of the Pilkington lecture theatre and also the adjacent open space for teaching large groups. The six year plan includes maintenance and replacement spends to support the successful delivery of the MPharm programme in the future.

The team was satisfied that this standard will be met.

### Standard 10 - Outcomes

The team scrutinised the learning outcomes by discussions with the teaching staff in two parallel subgroup sessions. Rather than examining each of the 58 outcomes in these sessions, a selection of ten outcomes (approximately 17%) was chosen for detailed discussion. The Medway staff members were unaware of the outcomes to be discussed before the meeting. Additional outcomes were covered in discussions addressing the various standards 1-9 and by the team’s scrutiny of the documentation. For each of the outcomes scrutinised in detail, the evidence provided by the discussions with the staff (and students), along with other evidence provided with the documentation, gave the team confidence that these outcomes would be met at the required level. The team was thus confident that all other outcomes would be similarly met. This view was supported by the documented material for each of the other outcomes, which had also been scrutinised by the team.

The team was satisfied that this standard will be met.

### Indicative Syllabus

The team was content with the School’s use of the Indicative Syllabus to inform its curriculum.

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.
Summary and conclusions

The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that the Medway School of Pharmacy should be reaccredited to provide an MPharm degree for a further period of six years, with a practice 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.


Caution: Preregistration and employment as a pharmacist:
• In respect of all students, successful completion of an accredited course in not a guarantee of a placement for a pre-registration year or of future employment as a pharmacist.

Following the above reaccreditation event, the Registrar of the General Pharmaceutical Council agreed with the accreditation team’s recommendation and approved the Medway School of Pharmacy MPharm degree for reaccreditation a further period of 6 years. Reaccreditation will take place in six academic years’ time, with an interim practice visit in three academic years’ time (2015-16).
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
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

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10.1.a</strong> Recognise ethical dilemmas &amp; respond in accordance with relevant codes of conduct and behaviour</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.1.b</strong> Recognise the duty to take action if a colleague’s health, performance or conduct is putting patients or public at risk</td>
<td>Knows how</td>
<td>Knows how</td>
</tr>
<tr>
<td><strong>10.1.c</strong> 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</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.1.d</strong> Apply the principles of clinical governance in practice</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.1.e</strong> Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices</td>
<td>Shows how</td>
<td>Knows how</td>
</tr>
<tr>
<td><strong>10.1.f</strong> Contribute to the education and training of other members of the team, including peer review and assessment</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.1.g</strong> Contribute to the development of other members of the team through coaching and feedback</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>10.1.h</strong> Engage in multidisciplinary team working</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.1.i</strong> Respond appropriately to medical emergencies, including provision of first aid</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
</tbody>
</table>

### 10.2 The skills required in practice

#### 10.2.1 Implementing health policy

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> Promote healthy lifestyles by facilitating access to and understanding of health promotion information</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>b.</strong> Access &amp; critically evaluate evidence to support safe, rational &amp; cost effective use of medicines</td>
<td>Shows how</td>
<td>Knows how</td>
</tr>
<tr>
<td><strong>c.</strong> Use the evidence base to review current practice</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>d.</strong> Apply knowledge of current pharmacy-related policy to improve health outcomes</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>e.</strong> Collaborate with patients, the public and other healthcare professionals to improve patient outcomes</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>f.</strong> Play an active role with public and professional groups to promote improved health outcomes</td>
<td>Knows how</td>
<td>Knows how</td>
</tr>
</tbody>
</table>
### 10.2.2 Validating therapeutic approaches and supplies prescribed and over-the-counter medicines

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Identify and employ the appropriate diagnostic or physiological testing techniques in order to promote health</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td>b. Identify inappropriate health behaviours and recommend suitable approaches to interventions</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>c. Instruct patients in the safe and effective use of their medicines and devices</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>d. Analyse prescriptions for validity and clarity</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>e. Clinically evaluate the appropriateness of prescribed medicines</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>f. Provide, monitor and modify prescribed treatment to maximise health outcomes</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>g. Communicate with patients about their prescribed treatment</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>h. Optimise treatment for individual patient needs in collaboration with the prescriber</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>i. Record, monitor and store patient data</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>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.</td>
<td>Shows how</td>
<td>Does</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10.2.3.a.</strong> Ensure quality of ingredients to produce medicines and products</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>10.2.3.b.</strong> Apply pharmaceutical principles to the formulation, preparation and packaging of products</td>
<td>Shows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>10.2.3.c.</strong> Verify safety and accuracy utilising pharmaceutical calculations</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.2.3.d.</strong> Develop quality management systems including maintaining appropriate records</td>
<td>Shows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>10.2.3.e.</strong> Manage and maintain quality management systems including maintaining appropriate records</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.2.3.f.</strong> Procure and store medicines and other pharmaceutical products working within a quality assurance framework</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.2.3.g.</strong> Distribute medicines safely, legally and effectively</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td>10.2.3.h.</td>
<td>Dispose of medicines safely, legally and effectively</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.i.</td>
<td>Manage resources in order to ensure work flow and minimise risk in the workplace</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.j.</td>
<td>Take personal responsibility for health and safety</td>
<td>Does</td>
</tr>
<tr>
<td>10.2.3.k.</td>
<td>Work effectively within teams to ensure safe and effective systems are being followed</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.l.</td>
<td>Ensure the application of appropriate infection control measures</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.3.m.</td>
<td>Supervise others involved in service delivery</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.n.</td>
<td>Identify, report and prevent errors and unsafe practice</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.3.o.</td>
<td>Procure, store and dispense and supply veterinary medicines safely and legally</td>
<td>Knows how</td>
</tr>
</tbody>
</table>

### 10.2.4 Working with patients and the public

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

### 10.2.5 Maintaining and improving professional performance

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct and behaviour</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td>b. Reflect on personal and professional approaches to practice</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td>c. Create and implement a personal development plan</td>
<td>Does</td>
<td>Does</td>
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</tbody>
</table>
d. Review and reflect on evidence to monitor performance and revise professional development plan  

<table>
<thead>
<tr>
<th>Does</th>
<th>Does</th>
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</table>

e. Participate in audit and in implementing recommendations  

<table>
<thead>
<tr>
<th>Knows how</th>
<th>Shows how</th>
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</table>

f. Contribute to identifying learning and development needs of team members  

<table>
<thead>
<tr>
<th>Knows how</th>
<th>Does</th>
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</table>

g. Contribute to the development and support of individuals and teams  

<table>
<thead>
<tr>
<th>Knows how</th>
<th>Does</th>
</tr>
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</table>

h. Anticipate and lead change  

<table>
<thead>
<tr>
<th>Knows how</th>
<th>Shows how</th>
</tr>
</thead>
</table>

**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 pharmaceutics, 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)