

Undergraduate Medicine Curriculum Review

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THE CHANGES & IMPLEMENTATION

The main curriculum changes are planned for implementation as detailed below, and as shown on the course maps following.

Further details of the changes in each year plus the reasons for change follow in the next section.

Summary of Changes & Programme for Implementation

From 2009-10:

Year 2

- Introduction of elements of the BSc Foundation Course in IBFD block
- Clinical Introductory Attachment reduced from 4 to 3 weeks

Year 3

- Extended first attachment giving 3 x 10 week clinical attachments
- For one year only, 2 week BSc Foundation Course block at the end of first attachment which will be 8 weeks to facilitate this.
- Introduction of 3 week Background to Clinical Specialties course
- Start of Graduate Entry / Direct Entry programme brought forward by 3 weeks to facilitate same Year 3 experience as in the six year course

Year 5

- O&G block changed to 7 weeks as pilot for other proposed changes in attachment length
- Introduction of 2 week Critical Care module including Intermediate Life Support course for all students

From 2010-11 onwards:

Years 1 & 2

- Implementation of restructured teaching, feedback and assessment

BSc

- Introduction of new two week Foundation Course block at the start of Year 4 and teaching elements throughout years 1 and 2. Foundation Course completely removed from Year 3.

Year 5

- O&G and Paediatrics now 7 weeks
- Psychiatry 6 weeks
- Musculoskeletal now 4 weeks
- Introduction of a new 1 week Teaching Skills block
- Radiology to move to Year 5

Year 6

- Neurology moves from Year 5 to Year 6
- One week inserted at Easter Vacation to enable students to undertake shadowing of their first Foundation Year posts moving remainder of course and final examinations back one week.
- Renal and Cardiology both remain in Year 6 as 1 week blocks each

Curriculum Review - Course Map 2009-10
 (NB: this is a pictorial representation provided as a guide only)

		06-Jul-09	13-Jul-09	20-Jul-09	27-Jul-09	03-Aug-09	10-Aug-09	17-Aug-09	24-Aug-09	31-Aug-09	07-Sep-09	14-Sep-09	21-Sep-09	28-Sep-09	05-Oct-09	12-Oct-09	19-Oct-09	26-Oct-09	02-Nov-09	09-Nov-09	16-Nov-09	23-Nov-09	30-Nov-09	07-Dec-09	14-Dec-09	21-Dec-09	28-Dec-09	04-Jan-10	11-Jan-10	18-Jan-10	25-Jan-10	01-Feb-10	08-Feb-10	15-Feb-10	22-Feb-10	01-Mar-10	08-Mar-10	15-Mar-10	22-Mar-10	29-Mar-10	05-Apr-10	12-Apr-10	19-Apr-10	26-Apr-10	03-May-10	10-May-10	17-May-10	24-May-10	31-May-10	07-Jun-10	14-Jun-10	21-Jun-10	28-Jun-10	05-Jul-10	12-Jul-10	19-Jul-10	26-Jul-10	02-Aug-10	09-Aug-10	16-Aug-10	23-Aug-10	30-Aug-10	06-Sep-10	13-Sep-10	20-Sep-10	27-Sep-10	Year of course																																		
Year of entry ³	Year of course	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	Year of course																																		
IC Term Dates		Sat 4 Oct to Fri 19 Dec (11 weeks)											Sat 10 Jan – Fri 27 Mar 2008 (11 weeks)											Sat 25 Apr to Fri 11 Jun (7 wks)																																																																													
2008	1	Molecules, Cells & Diseases (MCD); Foundation of Clinical Practice (FCP)											Formative Life Cycle & Regulatory Systems (LCRS), Life Support Systems (LSS) and FCP											LS S & FCP											2																																																																		
2007	2	MCD, LRCS & FCP											MCD, LRCS & FCP											Science and patient											3																																																																		
	GEP 1	Systematic Physiology, Pharmacology and Pathology ; Anatomy; Cellular & Molecular Biology											Systematic Physiology, Pharmacology and Pathology ; Anatomy; Cellular & Molecular Biology											Systematic Physiology, Pharmacology and Pathology ; Anatomy; Cellular & Molecular Biology; Clinical Practice											Year GEP Resits	4																																																																	
2006	3	8 week clinical attachment											10 week clinical attachment											10 week clinical attachment											Year 3 Exams	4																																																																	
2008 (Direct Entry)	3 (Dir. Ent.)	10 week clinical attachment											10 week clinical attachment											10 week clinical attachment											Year 3 Exams	Those exempt from the BSc go directly into year 5	4 week Pathology Block	7 week attachment (in rotation)	Year 3 Resit Exams	5																																																													
2005	4	BSc Module 1											BSc Module 2											BSc Module 3											10 week BSc attachment											10 week BSc attachment (cont'd)	Part C Project/Mini-project: Write-up & Oral presenta	BSc Viva s	4 week Pathology Block	7 week attachment (in rotation) ¹	5																																																		
2004 + 2007 (Direct Entry)	5	4 week Pathology Block											9 week attachment (in rotation) ¹											9 week attachment (in rotation) ¹											9 week attachment (in rotation) ¹											9 week attachment (contd.)											9 week attachment (in rotation) ¹											9 week attachment (in rotation) ¹											9 week attachment (in rotation) ¹											Year 5 Exams#	3 wk attachments ³ / 8 week elective	Vacation	6								
Elective Group 1	6	8 week elective											3 week attachments ²											Practical Medicine or Study Leave											Practical Medicine or Study Leave											FY1 Shadowing											3 week attachment ²											Revision Cours											Year 6 Exams#											Year 6 Resit Examinations											

Curriculum Review - Draft Year 5 Course Map 2010-11

2010-11	05-Jul-10	12-Jul-10	19-Jul-10	26-Jul-10	02-Aug-10	09-Aug-10	16-Aug-10	23-Aug-10	30-Aug-10	06-Sep-10	13-Sep-10	20-Sep-10	27-Sep-10	04-Oct-10	11-Oct-10	18-Oct-10	25-Oct-10	01-Nov-10	08-Nov-10	15-Nov-10	22-Nov-10	29-Nov-10	06-Dec-10	13-Dec-10	20-Dec-10	27-Dec-10	03-Jan-11	10-Jan-11	17-Jan-11	24-Jan-11	31-Jan-11	07-Feb-11	14-Feb-11	21-Feb-11	28-Feb-11	07-Mar-11	14-Mar-11	21-Mar-11	28-Mar-11	04-Apr-11	11-Apr-11	18-Apr-11	25-Apr-11	02-May-11	09-May-11	16-May-11	23-May-11	30-May-11	06-Jun-11	13-Jun-11	20-Jun-11	27-Jun-11	04-Jul-11	11-Jul-11	18-Jul-11	25-Jul-11
A	PATHOLOGY	PSYCHIATRY		STUDY	GUM/HIV/ID (3) & CRITICAL CARE (2) & RADIOLOGY (1)		STUDY	PAEDS		CHRISTMAS VACATION		O&G		MUSCULOSKELETAL & DERMATOLOGY		STUDY	ONCOLOGY (2) /TEACHING SKILLS (1) & GP (3)		STUDY																																					
B		ONCOLOGY (2) /TEACHING SKILLS (1) & GP (3)		STUDY	O&G		STUDY	GUM/HIV/ID (3) & CRITICAL CARE (2) & RADIOLOGY (1)				STUDY	PAEDS		PSYCHIATRY		STUDY	MUSCULOSKELETAL & DERMATOLOGY		STUDY																																				
C		MUSCULOSKELETAL & DERMATOLOGY		STUDY	ONCOLOGY (2) /TEACHING SKILLS (1) & GP (3)		STUDY	O&G				STUDY	EASTER VACATION		GUM/HIV/ID (3) & CRITICAL CARE (2) & RADIOLOGY (1)		STUDY	PSYCHIATRY		STUDY																																				
D		O&G		STUDY	MUSCULOSKELETAL & DERMATOLOGY		STUDY	ONCOLOGY (2) /TEACHING SKILLS (1) & GP (3)				STUDY			PSYCHIATRY		STUDY	GUM/HIV/ID (3) & CRITICAL CARE (2) & RADIOLOGY (1)		STUDY	PAEDS		STUDY																																	
E		PAEDS		STUDY	PSYCHIATRY		STUDY	MUSCULOSKELETAL & DERMATOLOGY				STUDY			ONCOLOGY (2) /TEACHING SKILLS (1) & GP (3)		STUDY	O&G		STUDY	GUM/HIV/ID (3) & CRITICAL CARE (2) & RADIOLOGY (1)		STUDY																																	
F		GUM/HIV/ID (3) & CRITICAL CARE (2) & RADIOLOGY (1)		STUDY	PAEDS		STUDY	PSYCHIATRY				STUDY			MUSCULOSKELETAL & DERMATOLOGY		STUDY	ONCOLOGY (2) /TEACHING SKILLS (1) & GP (3)		STUDY	O&G		STUDY																																	
	REVISION		YEAR 5 EXAMINATIONS		Vacation		START OF YEAR 6 (PROVISIONAL)																																																	

Easter Vacation
Monday 18th - Friday 22nd April 2011

Christmas Vacation
Monday 27th December 2010 - Friday 7th January 2011

Study Week
4 weeks

7 Week Blocks	6 Week Blocks	4 Week Blocks	3 Week Blocks	2 Week Blocks	1 Week Blocks
O&G	Psychiatry	Musculoskeletal	GUM	Dermatology *	Radiology
Paediatrics			GP	Critical Care	Teaching Skills
				Oncology	

* introductory days in Year 3 are proposed for ENT, Ophthalmology, Dermatology, Neurology & Radiology

STUDENT NUMBERS		
Based on a cohort of 360, the number of students per rotation would be:		
	NEW STRUCTURE	CURRENT STRUCTURE
O&G	60 per 7 week block	72 per 9 week block
Paediatrics	60 per 7 week block	72 per 9 week block
Psychiatry	60 per 6 week block	72 per 7 week block
Musc / Derm	60 per 6 week block	72 per 9 week block
GUM/HIV/ID	30 per 3 week block	24 per 3 week block
GP	30 per 3 week block	24 per 3 week block
Oncology	30 per 2 week block	24 per 2 week block
Radiology	30 per 1 week block	30 per 1 week block
Teaching Skills	30 per 1 week block	
Critical Care	30 per 2 week block	

NOTES	
1 Anticipated capacity challenges:	- increase of student numbers per rotation for GP, GUM/HIV/ID, Oncology - reduced numbers per attachment for O&G, Paeds, Psych, Musc, Dermatology, Radiology
2 Radiology would move from Year 6 to Year 5 requiring double-teaching for 1 year	
4 Critical Care block to include Intermediate Life Support Training	
5 Possible SIFT Implications for major Year 5 teaching sites as teaching weeks reduced and distribution pattern will be affected	

Curriculum Review - Draft Year 6 Course Map 2010-11

26-Jul-10	02-Aug-10	09-Aug-10	16-Aug-10	23-Aug-10	30-Aug-10	06-Sep-10	13-Sep-10	20-Sep-10	27-Sep-10	04-Oct-10	11-Oct-10	18-Oct-10	25-Oct-10	01-Nov-10	08-Nov-10	15-Nov-10	22-Nov-10	29-Nov-10	06-Dec-10	13-Dec-10	20-Dec-10	27-Dec-10	03-Jan-11	10-Jan-11	17-Jan-11	24-Jan-11	31-Jan-11	07-Feb-11	14-Feb-11	21-Feb-11	28-Feb-11	07-Mar-11	14-Mar-11	21-Mar-11	28-Mar-11	04-Apr-11	11-Apr-11	18-Apr-11	25-Apr-11	02-May-11	09-May-11	16-May-11	23-May-11	30-May-11	06-Jun-11	13-Jun-11	20-Jun-11	27-Jun-11
Elective									GP Student Assistantship	Emergency Medicine	PWE Medicine	PWE Surgery	Christmas Vacation			Neurology & Cardiology	ENT Ophthalmology Renal	Study Leave or Practical Medicine		Study Leave or Practical Medicine		SCM	Easter Vacation			Easter Vacation / FY1 Shadowing	Revision Course			Finals																		
									Emergency Medicine	PWE Medicine	GP Student Assistantship	Neurology & Cardiology				ENT Ophthalmology Renal	SCM					PWE Surgery																										
									PWE Medicine	GP Student Assistantship	Emergency Medicine	SCM				PWE Surgery	Neurology & Cardiology					ENT Ophthalmology Renal																										
ENT Ophthalmology Renal	SCM	PWE Surgery	Elective						Vacation			GP Student Assistantship	Christmas Vacation			Emergency Medicine	PWE Medicine	Practical Medicine		Neurology & Cardiology	Study Leave		Easter Vacation			Easter Vacation / FY1 Shadowing	Revision Course			Finals																		
Neurology & Cardiology	ENT Ophthalmology Renal	SCM										Emergency Medicine				PWE Medicine	GP Student Assistantship			PWE Surgery																												
PWE Surgery	Neurology & Cardiology	ENT Ophthalmology Renal										PWE Medicine				GP Student Assistantship	Emergency Medicine			SCM																												
SCM	PWE Surgery	Neurology & Cardiology										PWE Medicine				GP Student Assistantship	Emergency Medicine			ENT Ophthalmology Renal																												
GP Student Assistantship	Emergency Medicine	PWE Medicine	ENT Ophthalmology Renal	SCM	PWE Surgery	Elective						Christmas Vacation			Elective			Vacation			Neurology & Cardiology	Practical Medicine		Study Leave	Easter Vacation			Easter Vacation / FY1 Shadowing	Revision Course			Finals																
Emergency Medicine	PWE Medicine	GP Student Assistantship	Neurology & Cardiology	ENT Ophthalmology Renal	SCM													PWE Surgery			SCM																											
PWE Medicine	GP Student Assistantship	Emergency Medicine	SCM	PWE Surgery	Neurology & Cardiology	ENT Ophthalmology Renal													ENT Ophthalmology Renal																													
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Period 11	Period 12																																					

CHRISTMAS VACATION
20th December 2010 - 2nd January 2011

EASTER VACATION
18th April - 1st May 2011

3 Week Blocks taught across 9 periods
GP Student Assistantship
PWE Out
Emergency Medicine

3 Week Blocks taught across 12 periods
PWE In
Specialty Choice Module

2 Week Blocks taught across 12 periods
Neurology

1 Week Blocks taught across 12 periods
ENT
Ophthalmology
Cardiology
Renal

NOTES:

- 1 Anticipated Capacity Challenges: - based on a cohort of 360, Neurology would be required to teach 30 per 2 week attachment instead of 24 per attachment at present
- 2 Neurology would move from Year 5 to Year 6 resulting in no teaching for 1 year
- 3 Radiology to move to Year 5 requiring double-teaching for 1 academic year
- 4 One week inserted at Easter Vacation to enable students to undertake shadowing of FY1 posts moving remainder of course and Final examinations back by one week.

Details of the Changes

Years 1 and 2

The aim of the curriculum review in respect of Years 1 and 2 is to address overcrowding, lack of time for reflection, duplication & overlap of material and teaching at an over-specialised level.

The revision and restructuring of these years will be the major focus of the on-going Review work in accordance with both the GMC requirements and recommendations and the internal conclusions of the Review process to-date.

Review of these years will be informed by both the Learning Outcomes project and the identification of core Basic Medical Sciences material which should form the basis of the revised curriculum content. It is also intended that basic science and the scientific method will form one of the key vertically integrated themes throughout the entire curriculum.

BSc Year (Year 4)

The aim of the curriculum review in respect of Year 4 is to improve the relationship between the Foundation Course and the BSc year. Currently it is proposed with effect from academic year 2009-10:

- to integrate the Foundation Course with the existing curriculum in Year 2.
- to remove the gap between the foundation course and the science year and allow incoming and BMS students to benefit from the foundation course.
- to remove the Foundation Course from Year 3 and introduce a modified version at the beginning of Year 4 giving external and BMS students a fuller and more similar experience to other students and allowing this part of the course to be integrated with the Year 4 introduction.
- to more firmly link the BSc year to the two earlier science years so that these are more focused on scientific method which both orientates them more appropriately and enables them to be the true foundation for the BSc programme. Building in additional preparatory teaching in Years 1 and 2 is a first step in achieving this.
- An alternative proposal to split the BSc between Years 3 & 4 giving students half BSc and half clinical teaching in each of those two years was rejected by the BSc course leaders.

2005	4	06.11.09	13.11.09	20.11.09	27.11.09	04.12.09	11.12.09	18.12.09	25.12.09	01.01.10	08.01.10	15.01.10	22.01.10	29.01.10	05.02.10	12.02.10	19.02.10	26.02.10	05.03.10	12.03.10	19.03.10	26.03.10	02.04.10	09.04.10	16.04.10	23.04.10	30.04.10	07.05.10	14.05.10	21.05.10	27.05.10
					Year 3 Results	Foundation Course (3 weeks)	BSc Module 1	BSc Module 2	BSc Module 3	Part B Exams (1 week)	10 week BSc attachment	10 week BSc attachment (cont'd)	Part C Project: Writing & Oral Presentations		BS = Viva's								4 week Pathology Block	7 week attachment (in rotation) ¹							

Figure 2. Year 4 Course Map 2009-10

The Clinical Years (Years 3, 5 and 6)

The aim of the curriculum review in relation to the clinical years is to reduce overcrowding particularly in Year 5; to enhance vertical integration across the clinical years and enhance clinical opportunities particularly in Year 3; reflecting the change in medicine towards the care of more long term chronic conditions. This is particularly important for key clinical examination skills.

Year 3

It is proposed with effect from academic year 2009-10:-

- To establish an orientation to clinical specialties block in Year 3, entitled 'Background to Clinical Specialities' in some of the time previously occupied by the BSc Foundation Course. Students will attend teaching on community based paediatrics, obstetrics and mental health as well as receiving advice and guidance on how to optimise their clinical attachments and learning opportunities in the clinical environment. There would also be introductory days on Ears Nose and Throat, Ophthalmology, Dermatology, Cardiology, Neurology and Radiology, all of which are intended to aid the early acquisition of basic clinical skills in these domains. Patient-centred care, helping undergraduates to understand the importance of the management of long term conditions. A basic introduction into how the health service operates and is funded will be included.
- From 2010-11, the BSc Foundation Course will not feature in Year 3. There will be additional teaching disseminated in Years 1 and 2 of the course and the addition of two weeks at the start of Year 4.
- To extend the year to allow 3 x 10 week attachments with each student spending 20 weeks attached to Medicine firms and 10 weeks attached to Surgery firms. This seems more representative of the necessary post graduate skills and patient/ placement availability.
- To lengthen Year 3 of the Direct Entry course to give equivalent teaching and experience to that given in the 6 year programme.

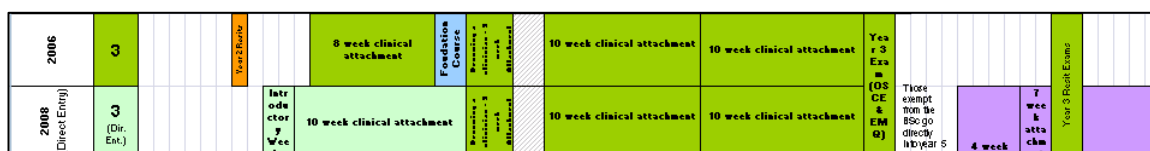


Figure 3. Year 3 Course Map 2009-10

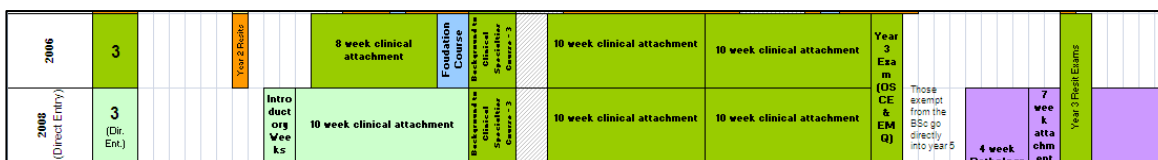


Figure 4. Year 3 Course Map 2010-11

Year 5

Year 5 is currently the most intensive and overcrowded year of the course and with inadequate leave. This has a negative effect on student learning, is exhausting and encourages cramming. It is proposed with effect from academic year 2010-11:

- to change each of the current year 5 blocks from 9 weeks to 7 enabling the introduction of a 2 week holiday at Christmas (instead of the current 1), 1 week at Easter and the end of the year, a 2 week revision period before the examinations (increased from the current 1 week) and the introduction of a week of self-directed study after four of the blocks. Time also needs to be allocated for the increase in electronic learning resources.
- to make the following changes to the length of attachments having assessed their learning objectives to ensure that content and required learning outcomes are appropriately revised:
 - O&G and Paediatrics now 7 weeks (from 9)
 - Psychiatry now 6 weeks (from 7)

- Musculoskeletal now 4 weeks (from 6)

All attachments with revised time in Year 5 would have additional teaching introduced into the Year 3 'Background to Clinical Specialities Course' to embed subjects more consistently the clinical course.

- to develop a new 2 week attachment in Critical Care including Intermediate Life Support training (both Intermediate Life Support training and the Teaching Skills have been recommended by the GMC).
- to introduce a 1 week Teaching Skills block
- Radiology moves to Year 5 remaining as a 1 week block

2010-11	06-Jul-10	12-Jul-10	19-Jul-10	26-Jul-10	02-Aug-10	09-Aug-10	16-Aug-10	23-Aug-10	30-Aug-10	06-Sep-10	13-Sep-10	20-Sep-10	27-Sep-10	04-Oct-10	11-Oct-10	18-Oct-10	25-Oct-10	01-Nov-10	08-Nov-10	15-Nov-10	22-Nov-10	29-Nov-10	06-Dec-10	13-Dec-10	20-Dec-10	27-Dec-10	03-Jan-11	10-Jan-11	17-Jan-11	24-Jan-11	31-Jan-11	07-Feb-11	14-Feb-11	21-Feb-11	28-Feb-11	07-Mar-11	14-Mar-11	21-Mar-11	28-Mar-11	04-Apr-11	11-Apr-11	18-Apr-11	25-Apr-11	02-May-11	09-May-11	16-May-11	23-May-11	30-May-11	06-Jun-11	13-Jun-11	20-Jun-11	27-Jun-11	04-Jul-11	11-Jul-11	18-Jul-11	25-Jul-11
A					PSYCHIATRY	SUMMATIVE (3) % CRITICAL CARE (2) & RADIOLOGY (1)				PAEDS				O&G				MUSCULOSKE LETAL				DEFORMA TOLGOY				ONCOLOGY (2) /TEACHING SKILLS (1) & GP (3)																														

Figure 5. Sample strand from Year 5 Course Map 2010-11

Year 6

It is proposed with effect from academic year 2010-11:-

- Neurology be placed in Year 6 in a 3 week block shared with Cardiology, allowing it to be taught in the year that it is examined. We also plan to enhance vertical integration of these topics in Year 3.

07-Mar-11	14-Mar-11	21-Mar-11	28-Mar-11	04-Apr-11	11-Apr-11	18-Apr-11	25-Apr-11	02-May-11	09-May-11	16-May-11	23-May-11	30-May-11	06-Jun-11	13-Jun-11	20-Jun-11	27-Jun-11
Study Leave or Practical Medicine				SCM	Examiner Revision	Examiner Revision	Examiner Revision	Revision Course	Finals							
				PwE Surgery												
				Neurology & Cardiology												
				ENT Ophthalmology Renal												

Figure 6. Year 6 Course Map 2010-11

Changes to Assessment Strategy

Assessment review is being dealt with in parallel with the curriculum review and will be taken through the appropriate committees as reforms are brought forward. In order to improve the reliability and validity of clinical assessments, the following changes have already been implemented, or will be implemented during the current academic year:

- The validity of clinical assessments in Year 3 has been improved by the sole use of 10 minute examination stations to reflect a more realistic clinical encounter.
- Validity in Year 3 assessments will be further enhanced by the inclusion of one station featuring an actual, as opposed to a simulated, patient.
- An assessment of practical prescribing skills (required by the GMC) will be introduced as an element of the existing Clinical Pharmacology and Therapeutics examination (there will be no change to the overall length of the examination).

- The sensitivity of clinical finals examinations will be enhanced by increasing the number of data points available for grading.

The following developments are proposed and will be phased in as soon as possible:

- Ongoing revision of the assessment strategy in parallel with the curriculum review, so that it will continue to provide a framework of formative and summative assessment congruent with the learning outcomes of the revised curriculum.
- Enhance the opportunities for formative assessment, reduce the burden of summative written assessment and increase the clinical relevance of the written examinations. We are also investigating the feasibility of an OSCE-style examination in Year 1 or 2.
- The assessment and delivery of the BSc Foundation Course is being modified and the content currently in Year 3 integrated into Years 1, 2 and 4.
- In the clinical years of the course, we are focussing on the requirement to enhance the validity and reliability of all clinical assessments. We will also reduce the number of written assessments in Year 5 of the course.

Generic Curriculum Changes and Development

Course Mapping and Outcomes

A project to map the outcomes for the course has now completed its initial stages. In a complex course taught on multiple sites, many departments and across 6 years, it is essential that both staff and students see how each part of the course contributes to the whole and how each final learning outcome is developed educationally across the 6 years. This ambitious plan will additionally enable us to identify both duplication of teaching, areas where coverage is inadequate and ensuring there is a logical progression of teaching across the years. Plans are to be made to enhance areas which are insufficiently strong and reinforce key information.

Vertical Themes

The current course has many strengths, but continuity across the years is sometimes lacking. The management structure of the course is currently around Year Heads; a practical solution that works well in the main. The inevitable consequence of this is, however, a tendency to compartmentalise the course and not look broadly across it.

Another purpose of the vertical themes is to identify areas which are not properly represented across the curriculum and to ensure they are integrated at appropriate depth and level within the course. An existing example of this is in ethics, where the teaching used to occur almost entirely in Year 2. An enhanced course has now been implemented, which links the lessons learned in Year 2 with opportunities to actively reflect in on ethical issues encountered in clinical situations in Year 5. Further developments into other parts of the course are being planned.

The vertical themes are shown in figure 1 below:

Vertical themes

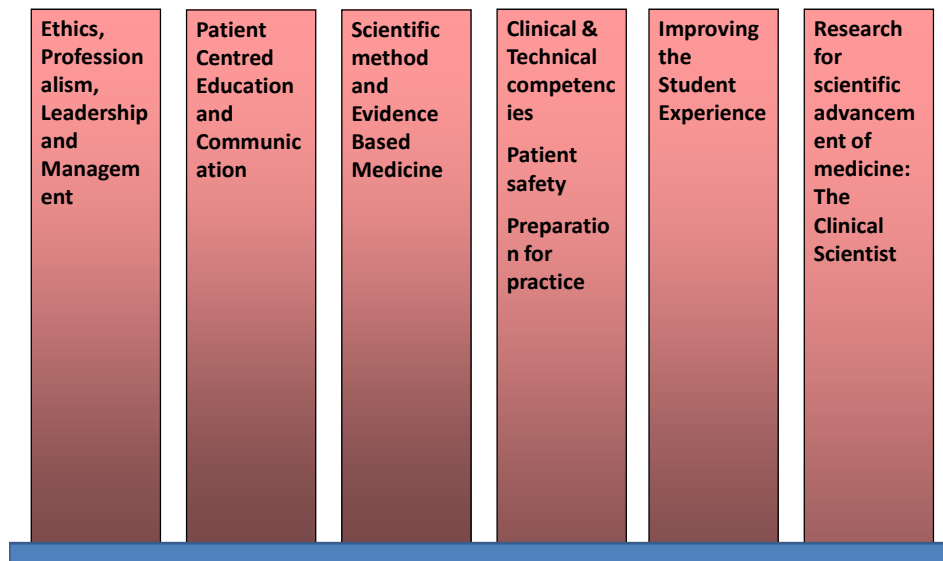


Figure 1. Vertical Themes

There may be some surprise at the inclusion of Science as a vertical theme when this is already an area of considerable strength. This, however, serves to illustrate the issue. Its representation is intensive in Years 1, 2 and 4 but patchy elsewhere, often leaving a schism between clinical and science. Evidence based medicine needs to be built in as a 'way of life' for Imperial students. What we aim to achieve is 'a clinical course from the outset and a science course until the end'.

Vertical Theme Heads

To address this we have appointed six Vertical Theme Heads to focus on the longitudinal links across the curriculum. The work initially undertaken with the identification of learning outcomes across the entire curriculum is a core starting point for these appointments.

These new posts will provide academic leadership for the integration of the vertical themes across the course. Each Head will be responsible for one of the six vertical themes:

1. Improving the Student Experience
2. Clinical & Technical Competencies, Preparation for Practice and Patient safety
3. Ethics, Professionalism, Leadership and Management
4. Patient Centred Education and Communication
5. Scientific method and Evidence Based Medicine
6. Research for scientific advancement of Medicine: The clinician scientist

Our plans to appoint Vertical Programme Heads were welcomed by the GMC in their report and also satisfy two of their recommendations; to appoint theme heads and also to give further consideration to the learning and assessment of ethics and law.

The need to improve the student experience has been highlighted by the recent National Student Survey (2008), in which we perform poorly in the areas of student feedback and academic support. These areas need to be improved upon throughout the curriculum with the assistance of a staff champion who will work in close collaboration with the Students' Union and other students.

Pastoral Care

As part of the curriculum review and to align our pastoral care provision with similar models across the College, the current arrangements for the provision of pastoral care have been reviewed. The single part-time Head of Pastoral Care is to be replaced.

The new pastoral care arrangement has seen the introduction of three year-specific Senior Tutors, who have the following remits:

1. Senior Tutor 1 - MBBS/BSc – Years 1 & 2 (Early years)
2. Senior Tutor 2 - MBBS/BSc – Year 4, Graduate Entry (Year 1) and other BSc's (Biomedical Science and Pharmacology)
3. Faculty Senior Tutor - MBBS/BSc – Year 3, 5 & 6 (Clinical Years)
4. Each Senior Tutor is responsible for specific areas of the course, and for the coordination and monitoring of the activities of the Personal Tutors allocated to students on those particular years of the Medicine course and BScs with administrative support from the Undergraduate Medicine Office. They are also points of contact for the students and expected to meet regularly with the student representatives as well as attending the relevant staff student liaison group.

Next Steps...

The changes outlined are to facilitate enhancement of the course across all years rather than delaying implementations by rolling through annually from Year 1. Specifically it is intended to:

- Implement the changes to Years 3, 4 and some of those to Year 5 with effect from the next academic year 2009-10 as summarised above
- Implement the majority of changes to Years 5 and 6 with effect from academic year 2010-11 as summarised above
- Continue work on Years 1 & 2, the BSc and the Vertical Themes with a view to introducing improvements on an incremental basis but commencing effective from 2009-10.

We continue our focus on pastoral care/ personal tutoring, welfare and the student experience and the formative and summative assessment strategy.

THE CURRICULUM REVIEW PROCESS

The Curriculum Review was initially progressed in a series of broad and inclusive meetings called by the Head of Undergraduate Medicine open to all in the undergraduate medicine course to undertake a review of curricular issues. From this process a number of priorities were identified and four working groups were set up to look at specific issues within four broad areas: Years 1 & 2, the BSc, the Clinical Years and Vertical Integration. The reports that were brought back to the commissioning group form the basis for these recommendations and proposals. It is an ongoing process which is not complete at this stage but given the complexity of what is involved we need to progress the overall direction of travel and a series of enabling reforms which are identified in this document.

Objectives of the Curriculum Review

- To offer a course that inspires and prepares our students to become the clinical academics and leaders of the future.
- To enhance the student experience, improving pastoral support and giving better feedback.
- To review the knowledge requirements of the course and modify them consistent with the place of Imperial as a prime science based medicine curriculum.
- To produce an enhanced course map, integrating science and clinical parts of the course more closely.
- To enhance the learning of key topics across the course by helping students and staff understand each aspect of the teaching and where it is delivered that contribute to a particular theme. Identify adequate time for personal learning and reflection.
- To ensure that the academic content of each course element is appropriate and balanced in relation to the overall requirements of the undergraduate programme.
- To review both the formative and summative assessment strategy.
- To respond to the GMC's requirements and recommendations.

GMC Requirements

The full report from the GMC's QABME is available at: http://www.gmc-uk.org/education/undergraduate/undergraduate_ga/medical_school_reports.asp#L. We are required to demonstrate that we have satisfied the requirements of the GMC and provide evidence as to how we have satisfied these requirements and considered the recommendations by 1 July 2009. The GMC will then visit us for a follow-up visit in autumn 2009 to assess our progress.

In summary, the GMC have set the following requirements:

- Complete the current curriculum review and provide a clear programme of implementation thereafter.
- Further integration of basic and clinical sciences within the curriculum, including appointing theme heads.

- Ensure learning outcomes are being delivered at a level appropriate for undergraduates.
- Identify more protected time for reflection and consolidation of learning within the formal timetable.
- Involve students in team-working with professionals allied to healthcare. Invest in educational and assessment expertise to enable it to meet the requirements set.
- Revise the assessment strategy in order to provide a framework of both summative and formative assessment congruent with the outcomes of the curriculum review.

Our plans to review the curriculum dealt with a number of their concerns and they require that these plans are fully implemented. These included the modification of curriculum content and better integration of science and clinical themes across the years. They were concerned particularly about the content burden of years 1, 2 and 5.