MBChB
Code of Practice for Assessment
(Phase 1 of the MBChB programme)

2016-17
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1. Introduction

This document prescribes the conduct of the assessment of students in Phase 1 of the MB ChB programme at Leicester Medical School, building on the general guidance of the University of Leicester regulations.

Assessment processes in the Medical School are continually reviewed in the light of experience and guidance from the General Medical Council and other bodies. The code of Practise for Assessment will therefore be reviewed and updated on an annual basis. The annual revised version will apply to all students on the course at the time they are published, which will be at least one month before the first assessment of the Academic Year. Any changes will be explained to the students at least one month prior to an assessment so that ample time is provided for students to be aware of the assessment strategy that applies to them.

The regulations for progression from one year to the next and for graduation are described separately.

2. Assessment Strategy

Overview of Assessment

The aim of the University of Leicester Medical School is to provide an excellent standard of education and assessment which mirror the specifications of the GMC’s document, Promoting Excellence (2015)


R5.5 Medical schools must assess medical students against the learning outcomes required for graduates at appropriate points. Medical schools must be sure that medical students can meet all the outcomes before graduation. Medical schools must not grant dispensation to students from meeting the standards of competence required for graduates.

R5.6 Medical schools must set fair, reliable and valid assessments that allow them to decide whether medical students have achieved the learning outcomes required for graduates.

R5.7 Assessments must be mapped to the curriculum and appropriately sequenced to match progression through the education and training pathway.

R5.8 Assessments must be carried out by someone with appropriate expertise in the area being assessed, and who has been appropriately selected, supported and appraised. They are responsible for honestly and effectively assessing the medical student’s performance and being able to justify their decision.

The primary purpose of assessment of the core curriculum is to ensure that all students develop cumulative and integrated knowledge and skills so that they are competent to practice and have an appropriate foundation for lifelong learning. Furthermore, the Medical School is required to demonstrate that students are able to practise as safe future doctors. It is for this reason that all students must demonstrate that they have achieved the minimum safe standard for their stage of the course. Assessments are therefore designed to identify those students who are not ready to progress from one year of the course to the next as well as those students who are progressing exceptionally well.
The key feature of assessment is that in terms of content, assessments are cumulative. The style of examination is also intended to test the application of this progressive competence to clinical problems, to encourage breadth of learning, and to discourage as strongly as possible the adoption of selective, focussed learning strategies.

The MB ChB programme is not a modular programme. The programme is taught in an integrated manner and all summative assessments are integrated. In addition, there will be no compensation between major elements of the assessment package.

The assessment package (including summative and formative assessments) is intended to ensure students meet the GMC outcomes described within:

- The doctor as a scholar and a scientist
- The doctor as a practitioner
- The doctor as a professional

The Medical School has put in place a uniform pattern of assessments with common principles for each year of the course.

Within every year of the MB ChB programme there will be:

- A summative assessment
  This will normally consist of a written assessment and a clinical assessment; apart from Year 1 where the clinical examination is formative.
- Any student who is unsatisfactory in the end of year examination will have the opportunity to take a re-sit examination. The whole re-sit examination is always taken, regardless of whether failure to reach the minimum standard occurred in the written, clinical or both examinations and irrespective of the nature of the weaknesses which make a student liable for resitting it.

The following pattern of summative assessments will be followed:

**WRITTEN ASSESSMENTS**

The written assessment will consist of ‘short answer’ questions (SAQ), ‘single best answer’ questions (SBA) and in Year 1 only, an Integrated Understanding Assessment. Short answer questions have been used in Leicester for many years and provide a good test of understanding and the ability to apply knowledge to solve a clinical problem. Single best answer questions are now widely used in most postgraduate and national examinations and help to ensure the assessment covers an appropriate breadth of knowledge. The Integrated Understanding Assessment comprises questions that involve looking at models, anatomy prosections, bones, graphs, X-rays and other images. It is designed to test students understanding and assimilation of the modules of the course that they have studied during their first year that cannot simply be tested in a standard written format.

**Phase 1**

In Year 1 there will be a written assessment at the end of Semester 1 (ESA 1: SBA and SAQ) and again at the end of Semester 2 (ESA 2: SBA, SAQ and Integrated Understanding Assessment). The marks from these papers will be combined to award a single mark that is used to determine if a student has reached the minimum safe standard. The benefit of this approach is that if a student’s performance is unsatisfactory by a relatively small margin in the ESA 1 examination they have the opportunity to gain feedback and improve their learning strategy and performance in ESA 2. Providing their overall
mark for the written paper demonstrates that they have reached the minimum safe standard, they are not required to take the re-sit examination.

In Year 2, there will be a written assessment at the end of Semester 3 and Semester 4, with the marks combined to provide an overall mark to determine if a student has reached the minimum safe standard. The written formats used in both ESA3 and ESA4 will be SAQ and SBA.

**CLINICAL AND PRACTICAL ASSESSMENTS**

Clinical assessments will be delivered as modified Objective Structured Clinical Examinations (OSCE). The skills and competencies will build progressively from Year 1 through to the final year.

**Phase 1**

Year 1: Formative OSCE at the end of Semester 2 providing feedback to students on their progress in achieving the outcomes of the Compassionate Holistic Diagnostic Detective (CHDD) course. Attendance at this formative assessment is compulsory for all students.

Year 2: Summative OSCE at the end of Semester 4, assessing students’ achievement of the outcomes of the CHDD in Years 1 and 2 and forming part of the fourth End of Semester Assessment. Summative Integrated Practical Understanding Assessment at the end of Semester 4, assessing students’ ability to demonstrate an integrated understanding of the topics taught in Phase 1 of the course. The OSCE and Integrated Practical Understanding Assessment will be combined to give a single ‘Combined clinical and practical’ assessment result.

In Year 2, where there is both a written and a combined clinical and practical examination, failure in either the written or combined clinical and practical examination will result in both written and combined clinical and practical examinations having to be retaken, and the re-sit will require the student to be satisfactory in both components.
### 3. Summary Table

**SUMMARY ASSESSMENT STRATEGY FOR 2016: Phase 1**

<table>
<thead>
<tr>
<th>Format of assessments</th>
<th>Total marks available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
</tr>
<tr>
<td>Written:</td>
<td></td>
</tr>
<tr>
<td>ESA 1 minimum 6 Short Answer Questions (SAQ) = 60 marks;</td>
<td>ESA1 (SBA+SAQ) = 90 marks</td>
</tr>
<tr>
<td>minimum 30 Single Best Answer (SBA) questions = 30 marks</td>
<td>ESA 2 (SBA + SAQ + Integrated understanding assessment) = 230 marks</td>
</tr>
<tr>
<td>ESA 2 – minimum 12 SAQ = 120 marks; minimum 60 SBA = 60 marks; Integrated Understanding Assessment: minimum 50 marks</td>
<td>Total marks available = minimum 320 marks</td>
</tr>
<tr>
<td>Combined to give a single overall satisfactory/unsatisfactory grade for the Year 1 written paper</td>
<td></td>
</tr>
<tr>
<td>OSCE – formative assessment comprising 3 to 6 stations of 5 to 10 minutes each.</td>
<td></td>
</tr>
<tr>
<td><strong>Year 1 re-sit Examination</strong></td>
<td></td>
</tr>
<tr>
<td>Written:</td>
<td></td>
</tr>
<tr>
<td>minimum 15 SAQ = 150 marks; minimum 120 SBA = 120 marks;</td>
<td>Resit examination:</td>
</tr>
<tr>
<td>Integrated Understanding Assessment: minimum 50 marks</td>
<td>Total marks available = minimum 320 marks</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
</tr>
<tr>
<td>Written:</td>
<td></td>
</tr>
<tr>
<td>ESA 3 - minimum 12 SAQ (120 marks); minimum 60 SBA (60 marks)</td>
<td>ESA3 (SBA + SAQ) = 180 marks</td>
</tr>
<tr>
<td>ESA 4 - minimum 15 SAQ (150 marks); minimum 90 SBA (90 marks);</td>
<td>ESA4 (SBA + SAQ) = 240 marks</td>
</tr>
<tr>
<td>Combined to give a single overall satisfactory/unsatisfactory grade for the Year 2 written paper</td>
<td>Total marks available = minimum 420 marks</td>
</tr>
<tr>
<td>Combined clinical and practical assessment:</td>
<td></td>
</tr>
<tr>
<td>OSCE: summative assessment comprising a minimum of 6-12 stations of 5-10 minutes each. The examination will generate a minimum of 12 separate items to be awarded a mark or grade.</td>
<td></td>
</tr>
<tr>
<td>Integrated Practical Understanding: summative assessment comprising a minimum of 5 stations of 10 minutes to generate a minimum of 5 separate items to be awarded a mark or grade.</td>
<td></td>
</tr>
<tr>
<td>Students are required to pass both the written paper and the OSCE independently</td>
<td></td>
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<tr>
<td><strong>Year 2 re-sit written:</strong></td>
<td></td>
</tr>
<tr>
<td>Written:</td>
<td></td>
</tr>
<tr>
<td>minimum 15 SAQ (150 marks); minimum 120 SBA (120 marks)</td>
<td>Resit:</td>
</tr>
<tr>
<td></td>
<td>SBA + SAQ = 270 marks</td>
</tr>
<tr>
<td>Combined practical and clinical assessment:</td>
<td></td>
</tr>
<tr>
<td>OSCE: summative assessment comprising a minimum of 6-12 stations of 5-10 minutes each. The examination will generate a minimum of 12 separate items to be awarded a mark or grade.</td>
<td></td>
</tr>
<tr>
<td>Integrated Practical Understanding: summative assessment comprising a minimum of 5 stations of 10 minutes to generate a minimum of 5 separate items to be awarded a mark or grade.</td>
<td></td>
</tr>
<tr>
<td>Students are required to pass both the written paper and the combined clinical and practical assessment independently</td>
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</tr>
</tbody>
</table>
4. Standard Setting

STANDARD SETTING FOR PROGRESSION ASSESSMENTS

DEFINITION OF A STANDARD

A standard is a single assessment score that serves to define the boundary between differing qualitative student performances following an assessment. The standard for all assessments within the MB ChB programme is the attainment of the minimum safe standard in knowledge and clinical skills appropriate for the stage of the course. Throughout the MB ChB assessment programme the ‘primary’ standard will be a single unique score defining the boundary between satisfactory (pass) and unsatisfactory (fail). Students who score above this primary standard will be deemed as at least satisfactory, whilst those who score below this standard will be deemed unsatisfactory. ‘Secondary’ standards will define the secondary boundaries in student performance namely the boundaries between satisfactory and merit, and merit and distinction respectively. The secondary standards will normally be directly derived from the primary standard.

THE USE OF ABSOLUTE STANDARDS TO DETERMINE PROGRESSION

Only absolute standards will be used to classify student performances throughout the MB ChB assessment programme. Absolute standards are solely expressed in terms of the performance of students against an assessment and not on the comparative performance of the students. Hence, if the primary absolute standard is, for example, 60% then the performance of any student achieving 60% or more of the available marks will be deemed as at least satisfactory. It is not the case that the performance of a defined proportion of students will ‘always’ be deemed unsatisfactory; using an absolute standard all students have equal opportunity to gain a satisfactory outcome and the entire cohort may achieve this. This is appropriate as the MB ChB programme assessments are designed to determine whether a student has accrued the necessary knowledge, skills and attitudes, to a sufficient level, to progress in the MB ChB programme and ultimately to graduate as safe Foundation doctors.

As absolute standards are derived directly from an assessment, each standard is unique and only applicable to the assessment from which it was derived. It therefore follows that the primary standard will vary from assessment to assessment depending on, for example, the relative difficulty and importance of the items (content) within that assessment. The primary standard will therefore not be fixed (i.e. the primary standard will not always be 60%), though due to the manner in which assessments in the MBChB assessment programme are constructed the absolute primary standard would not be expected to be below 50% or above 75% of the available marks. When a progression decision is based on the performance of students in more than one assessment AND the separate assessments are deemed to examine the same construct the primary absolute standards may be summed and compared to the total score a student achieves across those assessments in order to determine the assessment outcome and inform the progression decision. In this manner compensation is possible between assessments (e.g. End of Semester Assessments 1 and 2 together determine progression from Year 1 to Year 2).
METHODS FOR DETERMINING THE PRIMARY ABSOLUTE STANDARD

The following methods will be used to determine the primary absolute standard throughout the MB ChB assessment programme. The method applied will be determined by the type of assessment instrument employed. These methods are used to ensure that the set primary standard is **credible and fair** and that decisions regarding the standard are based on expert judgement, demonstrate due diligence and are supported by research.

STANDARD SETTING FOR WRITTEN PROGRESSION ASSESSMENTS: SINGLE BEST ANSWER (SBA) AND SHORT ANSWER QUESTION (SAQ) INSTRUMENTS

The **Angoff Method** will be used to set the primary standard for all SBA and SAQ assessments employed during the MB ChB assessment programme. This method will therefore be applied to the following assessments in Phase 1 of the programme:

- End of Semester (ESA 1, 2, 3 and 4) SBA and SAQ components and the Year 1 Integrated Understanding Assessment
- The Year 1 and Year 2 re-sit SBA and SAQ components and the Year 1 resit Integrated Understanding Assessment.

The Angoff method will be applied to the assessment after the assessment has been constructed, edited and finalised **but before implementation** to avoid performance bias. The Angoff primary standard will be determined during a formal Standard Setting Meeting of the relevant standard setting group which will comprise a minimum of seven ‘standard setters’ to increase standard reproducibility and ameliorate assessor-teacher conflict. The standard setters will be academic and/or clinical staff, who understand the purpose of the assessment, are familiar with the assessment content and the curriculum to which it relates and are familiar with the students and the expected level of competence. Therefore the standard setting group will appropriately change from assessment to assessment dependent on the component(s) of the MB ChB programme being assessed. The standard setters will have received training in the Angoff method and review the assessment instrument in detail. Performance feedback and ongoing training will also be provided to standard setters.

The standard Angoff method will be used, however the following modifications may be applied in specific situations:

1. The assessment instrument may be reviewed by the standard setters independently of one another and Angoff proportions recorded electronically before the Standard Setting Meeting where items will then be discussed, outliers reviewed and the opportunity provided for standard setters to review their estimates. This modification will only be implemented when the standard setters are experienced and the borderline student has been discussed and defined beforehand.

2. The Angoff method may be applied to an SAQ instrument by means of determining the Angoff proportion for each of the marks available for an item.

Following the Standard Setting Meeting a primary standard will have been determined which will be applied following post-examination analysis. In Year 1, the primary standard applied will be the sum
of the averaged Angoff proportions obtained at standard setting minus one standard error of the measurement (SEM). In Year 2 and all subsequent years of the course, the primary standard applied will be the sum of the averaged Angoff proportions obtained at standard setting.

The recommendation for the primary standard will be made by the Assessment Group and confirmed by the Panel and Board of Examiners, who have the power to modify the recommendation.

**STANDARD SETTING FOR OBSERVED STRUCTURED CLINICAL EXAMINATIONS (OSCEs)**

The Borderline Group Regression (BGR) method will be used to set the primary standard for all OSCEs in the MB ChB assessment programme. It will also be used to set the primary standard for the Integrated Practical Understanding Assessment in Year 2. This method will therefore be applied to the following assessments in Phase 1:

- The Integrated Practical Understanding Assessment at the end of Year 2
- The Integrated Practical Understanding Assessment in the Year 2 Resit Examination
- Year 2 OSCE
- The OSCE of the Year 2 Resit Examination

The BGR method uses a global rating of a student’s performance provided by the station examiner(s). The student will be rated at each station assessed by an examiner. The data from which the primary standard for the examination is derived is therefore collected during the examination. The student’s performance will be rated by the examiner on a five point global rating scale attracting the following scores:

1. Clear fail = -2 demerit points
2. Borderline = -1 demerit point
3. Clear pass = score neutral
4. Good = 1 merit point
5. Excellent = 2 merit points

The primary standard is therefore based on the expert judgements of the examiners and therefore all individuals who make these performance judgements will receive on-going training in order to ensure reproducibility of standards and maximise examiner homogeneity. Following the examination, the global ratings will be used to determine the primary standard for each station and the overall primary standard by the BGR method.

Each student will have their merit and demerit points summed separately (i.e. a merit score and a demerit score).

Once the standard setting using the BGR method has been completed, a decision on whether a student’s performance is satisfactory or unsatisfactory will be based on the following two criteria:

- A student must achieve the overall pass mark for the examination (this ensures a sufficiently high standard)
• A student must not exceed a maximum number of demerit marks (this ensures breadth of competence and limits compensation). The exact number of demerit marks will be agreed by the Board of Examiners with the advice of the Assessment Group.

A student must meet both criteria in order to be graded as Satisfactory for the examination.

METHOD FOR DETERMINING SECONDARY STANDARDS
The secondary standards will be used for determining the award of merit and distinction. These standards are derived from the primary standard and will therefore, as for the primary standard, vary between assessments. Normally the secondary standards will be the primary standard plus a factor determined by the standard deviation of the cohort raw scores for the assessment. The secondary standards will therefore be derived following post-examination analysis and are dependent upon the content of the assessment (primarily difficulty). Z-scores will also be calculated and used to finalise the award of merit and distinction.

The recommendation for merit and distinction will be made by the Assessment Group and confirmed by the Panel and Board of Examiners, who have the power to modify the recommendation.

POST EXAMINATION ANALYSIS
Definition and purpose
Post-examination analysis is a collection of processes involved in analysing and evaluating the results of objective assessments. This analysis aims to minimise errors influencing the observed scores of an assessment, determine and ensure assessment accuracy, validity and reliability, ensure the credibility of the primary standard, provide quality evidence and deliver a means to evaluate and improve assessment items for use in future assessment instruments. The data from this analysis also feeds into curriculum development and outcome specification. The analysis performed will vary between the types of assessment instruments.

These analyses will be performed before and considered at the relevant Assessment Group meeting in order that the validity and reliability of the assessment(s) are determined, monitored and discussed and any problem items and outlying scores considered. The primary standard will then be applied to the total scores, in the context of the standard error of measurement (SEM). The secondary standards will be determined and applied. All of this data will form part of quality assurance and inform recommendations of assessment outcome to be considered by the relevant Panel and ultimately the Board of Examiners.

Post examination analysis of SBA instruments
Currently students' answers are marked using an optical mark reader. However, the school is planning to introduce electronic delivery and marking of the SBA paper during the academic year 2016-17.

After optical or electronic marking of the SBA instrument the following will be performed:

• A primary distractor analysis in order to validate the answer key +/- optical mark recognition scoring
• The frequency distribution of total scores will be inspected and mean, mode and median calculated to determine skewness of the score distribution
• Student Z-scores and decile ranking will be calculated
• Item analysis will be performed to calculate:
  o The Item-difficulty index ($P_i$) and item-difficulty index corrected for the effects of guessing ($P_{Di}$)
  o The item-discrimination index ($d$) by point bi-serial correlation
  o The statistical significance of each item
  o The reliability of the SBA instrument by Cronbach’s co-efficient alpha ($\alpha$)
  o The reliability of the SBA instrument by Cronbach’s co-efficient alpha ($\alpha$) with each item removed
  o The standard error of measurement (SEM)
• Cohort-independent item difficulties will be determined by Rasch analysis to allow and inform item banking and aid in future assessment instrument construction.

Post examination analysis of SAQ instruments
Following marking of the SAQ instrument the following will be performed:
• The frequency distribution of total scores will be inspected and mean, mode and median calculated to determine skewness of the score distribution
• Student Z-scores and decile ranking will be calculated
• Item analysis will be performed to calculate:
  o The Item-difficulty index ($P_i$)
  o The item-discrimination ($d$) index (by Pearson correlation coefficients)
  o The statistical significance of each item
  o The reliability of the SAQ instrument by Cronbach’s co-efficient alpha ($\alpha$)
  o The reliability of the SAQ instrument by Cronbach’s co-efficient alpha ($\alpha$) with each item removed
  o The standard error of measurement (SEM)

Once the SEM has been calculated, moderation will occur in order to monitor and reduce inter-rater variability, ensure marking quality and the credibility of the primary standard and maintain fair standards.

Moderation will also include the anonymous double marking of the following student scripts during a Moderation Meeting:
• The scripts of students whose total scores fall within 2 marks above and 5 marks below the primary standard.

Post examination analysis of OSCE and Integrated Practical Understanding Assessment instruments
Following implementation of the instrument the following will be performed:
• The primary standard for each station will be determined by analysing the global rating scores using the BGR method
• The frequency distribution of total scores will be inspected and mean, mode and median calculated to determine skewness of the score distribution
• Student Z-scores and decile ranking will be calculated
• Item analysis will be performed to calculate:
  o The Item-difficulty index (P_i)
  o The item-correlations (by Pearson’s correlation coefficients)
  o The statistical significance of each item
  o The inter-station reliability of the examination by Kuder-Richardson 20 (KR-20)
  o The standard error of measurement (SEM)

• Post-hoc analysis of stations and circuits will be performed to ensure equivalence.

5. Written Assessments

Each Year’s summative assessment includes a paper of short answer questions (SAQ), a paper of single best answer questions (SBA) and for ESA 2 only, an additional Integrated Understanding paper.

All assessments will include questions on the entire core curriculum to date.

In Phase 1 of the course, this will include specific questions on material from units in the immediately preceding semester, and questions incorporating material from all previous semesters. The proportion of these components will be determined by the Phase 1 Assessment Group according to approximate guidelines.

All questions in all end-of-semester assessments or end of year assessments will be compulsory. Students will be graded on the papers as a whole. For all written assessments students will be identified by student number only, so that marking is anonymous.

FORMAT OF WRITTEN PAPER QUESTIONS

Short answer questions
All short answer questions in the written papers will comprise an initial statement, usually describing briefly a clinical scenario, followed by a series of sub-questions (normally between 3 and 7 sub-questions) relating to that scenario drawn from one or more parts of the course across one or more blocks. The sub-questions will require a constructed response, where students have to write a short answer, annotate a diagram, complete a table or a similar variation of this principle. Students are expected to demonstrate knowledge and clinical reasoning in clearly written, short statements.

The marks allocated for each sub-question will be indicated and each question will have 10 marks overall. It must be clear from the examination instructions that, where examinees write more than the specified number of answers to a sub question, the first answers will be marked and the remainder will be ignored, even if they are correct and the preceding answers incorrect or irrelevant.

Model answers are written for all questions with a marking scheme including main and possible alternate answers. Scripts are team marked against these model answers (see over).
Single best answer questions (SBAs)

Single Best Answer questions require the student to select the most appropriate answer from a list of answers (the ‘option list’) presented to them.

Each single best answer question will be worth one mark.

Each single best answer question will be set according to the guidelines adopted by the Medical Schools’ Council-Assessment Alliance (MSCAA) in the UK.

SBAs may be drawn from the national question bank maintained by the MSCAA, so as to prepare students for the fact that in the final MBChB examination, standardised questions from the MSCAA will be incorporated into the examination in common with other medical schools in the United Kingdom.

Integrated Understanding Paper

Students will rotate around a circuit answering questions that involve looking at models, anatomy prosections, bones, graphs, X-rays and other images. Students will be presented with a question in written format and will be required to select the most appropriate answer from a list of answers presented to them. Each question will be worth one mark.

BLUEPRINTING OF WRITTEN ASSESSMENTS

All questions in all written assessments will be blueprinted to the ‘outcomes for graduates’ prescribed by the General Medical Council in its document Outcomes for Graduates (2015)1. Across individual assessments and the whole pattern of assessments for a cohort there will be systematic sampling of key presentations and index cases, linked to learning outcomes for the curriculum as a whole defined by the General Medical Council in its document Outcomes for Graduates (2015) (see Appendix A).

MARKING OF WRITTEN PAPERS

All constructed response (short answer) questions will be team-marked according to pre-defined model answers which may be modified in the light of actual student responses according to a standard protocol. Scripts will be identified by student number only throughout the marking and standard setting processes.

All scripts for each question in each paper will be marked by a marking team working together. The membership of the group and of the teams shall be chosen to reflect a wide range of disciplines and specialties.

Exam papers will be divided into individual questions for scoring. A single team will mark all the exam papers for any particular question.

Each member of the team will mark a small number of scripts, then the team as a whole will review the model answers in the light of student responses, and modify it if necessary. All scripts will then be marked by the same team, reviewing the first marked scripts if necessary. The agreed schedule is then applied rigidly to all scripts, including the initial papers used in the above process. Data from all scoring teams will be entered to a central database.

1 http://www.gmc-uk.org/education/undergraduate/undergrad_outcomes.asp
6. Clinical and practical assessments

Clinical assessments
All clinical assessments will be in the Objective Structured Clinical Examination (OSCE) format or a modification of that format. This consists of a series of ‘stations’ which candidates rotate around. At each station the candidates will perform a defined task or set of tasks, which may be part or all of a clinical consultation, a clinical procedural skill, physical examination skill, assessment of images or data interpretation, explanation to a patient or health practitioner or a short, structured clinical discussion.

There will be a formative Objective Structured Clinical Examination taken by all students at the end of the first year of the programme and a summative OSCE taken at the end of the second year (i.e. Phase 1) of the programme. Whilst this assessment is formative

The standard setting for the OSCE examination will be via the Borderline Group Regression (BGR) Method and is described under the heading of ‘Standard Setting’.

The summary of the OSCE content is described in the information provided for each year.

Practical assessments
In the Integrated Practical Understanding Assessment, students will be examined in the practical elements of the units of the course previously studied, apart from the CHDD course. The assessment will be examiner-led and is designed to test a student’s ability to interact with an examiner as well as to demonstrate an integrated understanding of the topics taught during Phase 1 of the course. The questions will be delivered verbally by the examiner and students will be required to give verbal responses as well as indicating structures on a specimen, radiograph, model etc.

The standard setting for the Integrated Practical Understanding Assessment will be via the Borderline Group Regression (BGR) Method and is described under the heading of ‘Standard Setting’.

7. Year 1 Examinations: ESA 1 and 2

The Year 1 examinations will be taken by all students on the programme.

Semester 1:
Written Paper: All students will take an End of Semester 1 Assessment (ESA 1) consisting of two papers.
Paper 1: minimum 6 short answer (SAQ) questions
Paper 2: minimum 30 single best answer (SBA) questions.
These may be combined into a single mixed-modality paper.

Semester 2:
Written Paper: All students will take an End of Semester 2 Assessment consisting of two papers.
Paper 1: minimum 12 SAQ questions
Paper 2: minimum 60 SBA questions.
Paper 3: Integrated Understanding Assessment comprising a minimum of 50 marks

As described previously, the ESA 1 and ESA 2 written assessments will be combined to give a single end of Year result. Students who are unsatisfactory in this Year 1 assessment will be required to take the Year 1 resit examination.

THE RE-SIT EXAMINATION

Paper 1: minimum 15 SAQ questions
Paper 2: minimum 120 SBA questions
Paper 3: Integrated Understanding Assessment comprising a minimum of 50 marks

Students who are unsatisfactory in the Year 1 resit examination will be graded as Unsatisfactory for the Year.

8. Year 2 Examinations: ESA 3 and 4 and Year 2 Combined Clinical and Practical Examination

The Year 2 examinations will be taken by all students on the programme.

Semester 3:
Written Paper: All students will take an End of Semester 3 Assessment consisting of two papers.
Paper 1: minimum 12 SAQ questions
Paper 2: minimum 60 SBA questions.

Semester 4:
Written Paper: All students will take an End of Semester 4 Assessment consisting of two papers.
Paper 1: minimum 15 SAQ questions
Paper 2: minimum 90 SBA questions.

As described previously the ESA3 and ESA4 written assessments will be combined to give a single end of Year written paper result.

OSCE: summative assessment comprising a minimum of 6-12 stations of 5-10 minutes each. The examination will generate a minimum of 12 separate items to be awarded a mark or grade. The composition of the OSCE will be determined by the Assessment Group and outlined to the students well in advance of the examination.

Integrated Practical Understanding: summative assessment comprising a minimum of 5 stations of 10 minutes to generate a minimum of 5 separate items to be awarded a mark or grade.

As described previously, the OSCE and Integrated Practical Understanding Assessment will be combined to give a single combined clinical and practical result.
A student whose performance is graded as unsatisfactory for either the Year 2 written or combined clinical and practical assessments will be required to take the Year 2 resit examination.

THE RE-SIT EXAMINATION

Written Paper:
Paper 1: minimum 15 SAQ questions
Paper 2: minimum 120 SBA questions

OSCE: summative assessment comprising a minimum of 6-12 stations of 5-10 minutes each. The examination will generate a minimum of 12 separate items to be awarded a mark or grade. The resit OSCE will be structured in an equivalent manner to the main Year 2 OSCE.

Integrated Practical Understanding: summative assessment comprising a minimum of 5 stations of 10 minutes to generate a minimum of 5 separate items to be awarded a mark or grade.

A Student whose performance is graded as unsatisfactory for either the Year 2 resit written or combined clinical and practical examination will be graded as Unsatisfactory for the Year.

9. Feedback to students after assessments

The Medical School’s policies on feedback for students after assessments are based on the University’s policies. These policies are available at
http://www2.le.ac.uk/offices/sas2/quality/student-feedback/return-of-marked-work
http://www2.le.ac.uk/offices/sas2/quality/student-feedback/examinations

1. The provision of feedback following a summative assessment is part of a wider process of feedback linked to learning and the delivery of the curriculum. Feedback is commonly included within teaching events, some in a formal manner and others informally. To support learning, formative assessments are provided, with a key objective being to provide feedback to help students identify both strengths and weaknesses and to allow opportunities for reflection and review. Feedback related to summative assessments is to be seen in this context.

2. The University has set out five schemes for feedback after examinations. With regard to summative assessments outlined in this document, the Medical School will follow Scheme 5 (a bespoke model of feedback), since the process described below includes elements of both Scheme 2 and 4 and has additional features.

3. The final mark agreed by a Panel or Board of Examiners is not negotiable.

4. Students will not be allowed to see their examination scripts. This is in accordance with Schedule 7.9 of the Data Protection Act 1998.
5. The Medical School will arrange for feedback on examination performance to be provided to all students. This will be provided irrespective of whether a student has passed or failed an assessment.

6. **WRITTEN ASSESSMENT FEEDBACK:**

   Phase 1: Students in Phase I of the course will receive feedback for the End of Semester Assessments and re-sit examinations that will include the following information:
   - SAQ mark, SBA mark, Integrated Understanding Assessment mark, Total mark and Overall %
   - Pass mark for the combined written papers
   - Student individual Z score and class Z score range
   - A breakdown of their SAQ and SBA marks related to individual blocks of teaching and to key domains. The domains include basic sciences such as anatomy, biochemistry, physiology, pharmacology, sociology, scientific methodology etc. and skills relevant to Phase 1 of the course e.g. diagnosis, prescribing decisions, patient safety.

   Each student will have an opportunity to review the feedback with their Personal Tutor. Their Personal Tutor may refer a student to the various support pathways available through the University and/or may refer the student to the Medical School Academic Support Unit.

   All students graded as unsatisfactory are invited to attend the Academic Support Unit. Any student can self-refer to the Academic Support Unit.

7. **CLINICAL AND PRACTICAL EXAMINATION FEEDBACK:**

   All students will be provided with feedback following the Year 1 formative OSCE and the Year 2 summative OSCE and Integrated Practical Understanding Assessments.

   The Year 1 OSCE has been developed as a purely formative assessment with the intention of giving feedback to students regarding their progress in achieving the outcomes of the CHDD course. Attendance at this assessment is compulsory.

   Students will receive verbal feedback from the examiners during the OSCE and written feedback after the assessment. Each student will have an opportunity to review this feedback with their Personal Tutor. Their Personal Tutor may refer a student to the various support pathways available through the University and/or may refer the student to the Medical School Academic Support Unit. Students may also self-refer to the academic support unit.

   Following the Year 2 OSCE and practical assessments, each student will receive a report with:
   - Examiner grade (fail, borderline, pass, good, excellent) for each individual section within each station.
   - Number of merit and de-merit scores
   - Percentage mark
• Pass mark for the assessment in terms of total mark and maximum permitted de-merit points.

Examiner comments: each student will receive a report with the examiner comments transcribed from the examination sheet. Any concern related to patient safety will be flagged and fed back and the professionalism support group will follow up any students about whom professionalism concerns have been raised.

8. Students who are course terminated after failing a re-sit examination can be provided with examination feedback at their request. This feedback will be the same as that provided for students who have failed a first-sit examination.

9. Note: The process for provision of feedback related to summative assessments continues to evolve and develop. A number of initiatives linked to the use of appropriate software are currently being evaluated.

10. Merit and Distinction awards

MERIT AND DISTINCTION OF THE CORE CURRICULUM IN PHASE 1

The awards of merit and distinction for assessment in phase 1 will normally be made on the basis of evaluation of a student’s cumulative performance across all assessments (End of Semester Assessments 1 – 4 and OSCE in Year 2). The Phase 1 Assessment Group, having reviewed the cumulative results at the end of Year 2, will make a recommendation on the necessary criteria for award of Merit and Distinction to the Board of Examiners.

11. Certification of procedural skills

All students are required to demonstrate competence at a defined list of clinical skills, specified by the General Medical Council in Outcomes for Graduates (2015), to be recorded as the course progresses. The Board of Examiners may require students to complete certain elements of clinical skills training in order to progress from Phase 1 to the subsequent phase of the student’s undergraduate training.

Students are required to have completed all parts of the clinical skills training by the end of the course in order to graduate. Any student who does not demonstrate competence in all specified skills by the end of the course will be recommended for course termination, irrespective of performance in formal examinations, and their case considered by the Board of Examiners.
Responsible Bodies

19. Mitigating Circumstances Panel

The University recognises that students may suffer from an illness or other serious and unforeseen event or set of circumstances which may mean that they cannot attend an assessment or if they do attend the assessment that their performance may be suboptimal. In such cases the mitigating circumstances regulations and procedures may be applied. These regulations are designed to ensure the fair and consistent treatment of all students.

The regulations on mitigating circumstances procedures are part of Senate Regulation 7: Regulations Governing the Assessment of Taught Programmes and can be found in the Senate Regulations.

The University guidance applies to medical students. There are some additional points that are specific to the MB ChB programme. These are provided in the document entitled: “Mitigating Circumstances Guide” and are available on the Medical School website.

The Boards of Examiners will establish a Mitigating Circumstances Panel to consider submissions. Membership of Panels will be determined by Heads of Department and will be drawn from the internal examiners.

The Mitigating Circumstances Panel will consist of the following:

- Chair of the Mitigating Circumstances Panel (who will normally be a clinician with consultant status, but not involved in the assessment process)
- Named Deputy Chair (to ensure consistency and appropriate cover)
- Two or three members drawn from the Panel of Examiners
- One member appointed at the discretion of the Head of the Department. This may be a lay member.
- Secretary to the Mitigating Circumstances

Mitigating Circumstances Panels will meet prior to Board of Examiners or Panel of Examiners. Mitigating Circumstances Panels will consider cases on the basis of documentary evidence and will operate under delegated powers from the Board of Examiners.

Mitigating Circumstances Panels will be responsible for determining whether sufficient grounds have been established and for making recommendations to the Board of Examiners on whether mitigation should be applied to the outcomes of specific pieces of students’ assessment. Mitigating Circumstances Panels will do so without evidence of the student’s performance for that particular assessment.

NOTE: The recommendations made by the Panel will take into account the nature of the MB ChB Programme and the expectation that students are required to work as safe future doctors.

Departments shall keep a formal record of the discussions and recommendations of Mitigating Circumstances Panels.
Mitigating Circumstances Panels make one of the following recommendations to the Board/Panel of Examiners:

- Mitigation considered and accepted.
- Mitigation considered and not accepted.

Where mitigating circumstances are accepted by a Mitigating Circumstances Panel, Mitigating Circumstances Panels shall not make a judgement about the extent to which accepted mitigating circumstances have affected a student’s performance; marks will not be adjusted and there will be no tariff.

At the Board of Examiners meeting for the relevant assessment, the Board will only consider the report from the Mitigating Circumstances Committee in respect of those students who have failed the assessment. In the case of those students whose mitigation has been considered and not accepted, the Board will make its progress decisions in the usual way. In the case of students whose mitigation has been considered and accepted, the Board will take into account the fact that mitigation has been accepted and this may affect the student’s progress decision providing that the decision falls within the University regulations for the MB ChB programme.

The examination marks and progress decisions released following the meeting of the Board of Examiners should clearly identify results where mitigation has been considered and accepted. Boards of Examiners will accept the recommendations of Mitigating Circumstances Panels but will not be expected to receive evidence. Boards of Examiners will determine the outcome of an assessment for an individual student in the light of the Mitigating Circumstances Panel’s recommendation.

**NOTE:** Mitigation will not affect marks, grades or whether or not a student passes an assessment or examination. It cannot permit a student to progress into a subsequent year (or to graduate) if the examination performance would otherwise prevent this. Mitigation only affects how the School deals with a student who has failed an assessment. If the Panel agrees that mitigating circumstances should be accepted as affecting an assessment/examination it will ask the Board of Examiners to take this into account when it makes a decision.

**Note:** The criteria used by the Mitigating Circumstances Panel and additional information is described in the “Mitigating Circumstances Guide”.
20. Board of Examiners and Panel of Examiners

The information contained in this section is based on the University Regulations for Taught Programmes [http://www2.le.ac.uk/offices/sas2/regulations/general-regulations-for-taught-programmes](http://www2.le.ac.uk/offices/sas2/regulations/general-regulations-for-taught-programmes). Some points have been clarified with regard to the MB ChB programme. Decisions on outcomes of summative assessments and progression on the programme are made by the Panel of Examiners and the Board of Examiners. The sections below outline the working of these respective groups.

BOARD OF EXAMINERS

A Board of Examiners shall be convened for the MB ChB programme, to consider the performance of students which contributes to an award of the University.

A Board of Examiners shall also consider the progression of students from one stage of a programme to the next.

The function of a Board of Examiners is to:
- confirm the recommended examination outcomes received from one or more Panels of Examiners;
- consider the academic performance of individual students as it relates to progression or award decisions;
- agree progression, and awards.

A Board of Examiners shall consist of:
- The Chair, which will normally be the Head of Department. In exceptional circumstances and with the agreement of the Academic Registrar, the Head of Department may nominate a member of staff of the department to act as Chair for a meeting of the Board of Examiners.
- Two members of each Panel of Examiners contributing assessment outcomes to the Board, one of whom shall normally be the Chair of the Panel of Examiners.
- Such other members of the academic staff, including unit leads or clinical block leads, as are necessary to make informed progression and award decisions.
- External Examiners for each of the assessments included in the remit of the Board.

The members of a Board of Examiners shall be agreed annually.

Attendance at a meeting of a Board of Examiners should consist of at least 75% of the membership and must include the Chair. Where an individual external examiner is unable to attend a meeting of the Board of Examiners, s/he shall normally be required to submit written comments on the outcomes of blocks, and the performance of candidates so that these views may be taken into account during the meeting.

At least one external examiner, from a team of examiners, shall be present at a meeting of a Board of Examiners, in person or via a means of electronic conferencing, where awards are being made to students. On occasions when the Board of Examiners is expecting to consider progression decisions only, external examiners are not required to attend.

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A representative of the Academic Registrar, normally a senior member of the administrative staff of
the University, shall attend each meeting of a Board of Examiners where awards to students are
under consideration to ensure that the proceedings of the Board are carried out in accordance with
the regulations.
The business of the Board may not be transacted in the absence of the Academic Registrar’s
Representative.

PANEL OF EXAMINERS
The function of a Panel of Examiners is to:

- consider patterns of student achievement for individual summative assessments, confirming
  the standards of achievement in the assessment, and ensuring that marking standards are
  sufficiently reliable to ensure that outcomes appropriately reflect student achievement
  against the written criteria;
- recommend summative assessment outcomes to one or more Board of Examiners;
- agree the release of provisional semester outcomes to students.

A Panel of Examiners shall consist of:

- Chair of the Panel of Examiners. This will normally be the Assessment Lead. The Head of
  Department may nominate a member of staff of the department to act as Chair for a
  meeting of the Panel of Examiners.
- Such other members of the academic staff as are necessary to make informed progression
  decisions.

Conduct of business
There shall be a standard formal agenda for meetings of Panels and Boards of Examiners. The
business of Panels and Boards remains confidential to the membership.

Panels and Boards shall make decisions on the basis of evidence of student achievement.
Each Panel and each Board will be provided with a standard data set to include the outcomes of
each unit of assessment being considered by the Panel; and the profile of each student for whom a
progression or award decision is to be made by the Board.
Semester and component marks presented to a Panel or Board of Examiners will have been carefully
considered by the markers who will have made informed academic judgments such that the overall
outcomes fairly reflect the levels of attainment of the students. This should be done by carefully
assessing the students’ work against written criteria.

Boards of Examiners shall not adjust component marks to elevate candidates across a classification
boundary.

All members of the Board are equal; no particular weight shall be given to the views of the external
examiner(s). An external examiner has no veto in relation to decisions in relation to individual
students. If a vote in any particular case is necessary, the Chair shall have the casting vote.

A Panel or a Board may defer a decision in relation to an individual student if insufficient information
about the performance of the student is available.
All recommendations for an award shall be recorded by the Academic Registrar’s Representative; this shall constitute the definitive record against which results are entered into the SITS student record and notified to students, and shall be held by the Registry, according to the University’s retention schedule.

The Academic Registrar’s Representative shall ensure that the lists of recommended awards is signed by the Chair and those external examiners present at the meeting.

The department shall provide a secretary to the Board, who shall take notes which shall include an account of any discussion in relation to difficult cases.

The Chair of a Board may make decisions on behalf of the Board, where a decision in relation to an individual student has been deferred. This will include making recommendations for intermediate awards, where appropriate.

The Board may make recommendations for the award of prizes to students.

**Mitigating circumstances**
Panels and Boards of Examiners will accept the recommendations of Mitigating Circumstances Panels but will not be expected to receive evidence. Boards of Examiners will determine the outcome of an assessment for an individual student in the light of the Mitigating Circumstances Panel’s recommendation.

The examination marks and progress decisions released following the meeting of the Board of Examiners should clearly identify results where mitigation has been considered and applied.

**Progression decisions**
A student’s progress will be reviewed at each progression point to determine whether s/he has met the requirements to progress to the next stage of the programme. In each case where a student has failed to meet the requirements to progress it will be determined whether the Board of Examiners makes a recommendation that s/he be withdrawn from the programme. The Board of Examiners shall consider whether any intermediate award may be made based on the student’s academic achievement.
21. Phase 1 Assessment Groups

PHASE 1 ASSESSMENT GROUP

The group, chaired by the Phase 1 Assessment Lead, is responsible for the oversight of all aspects of assessment in Phase 1, and the management of assessment of the core curriculum.

Membership

The Phase 1 Assessment Lead (Chair)
The Programme Lead for Assessment
The Quality Lead for Assessment
One module leader from each of semesters 1 to 4
At least one medically qualified member of staff
The Assessment Manager
Assessment administrator (Secretary)

The group is responsible for:

1. Coordination of all core assessments in Phase 1
2. Maintenance of question banks for written core assessments
3. Construction of appropriate Phase 1 assessments and re-sit examinations for the curriculum, including:
   • Blue printing to curriculum outcomes
   • Appropriate balance of unit specific and integrated questions
   • Appropriate balance of question difficulty and diversity
4. Oversight of administration of all core assessments in Phase 1 including:
   • Liaison with administrative staff to ensure appropriate room bookings
   • Identification of need for invigilators to be nominated under service level agreements with medical school departments
   • Preparation of scripts for marking
5. Administration of marking of Phase 1 assessments and resit examinations including:
   • Identification of staff requirements for marking teams to be nominated under service level agreements with medical school departments
   • Oversight of data entry and processing, and production of spread sheets for standard setting
6. Oversight of clinical assessments including OSCEs
**Semester Assessment Groups**

The end of semester assessments for each of semester, semesters 1-4 will each be coordinated by Semester Assessment Groups, which are sub-groups of the Phase 1 Assessment Group.

The membership of each Semester Assessment Group shall comprise:
- The Phase 1 Assessment Lead
- All block leaders of blocks in that semester
- One other member of the Semester Assessment Group, preferably a block leader from an earlier semester
- In the case of Semester 4, the individual responsible for the Objective Structured Clinical Examination
- Assessment Administrator

The Semester Assessment Group will be responsible for:
1. The preparation of appropriate written end of semester assessments
2. Submission of the papers for approval by the Phase 1 Assessment Group and External Examiners
3. Administration of all core assessments in the relevant semester
4. Marking and moderating short answer question scripts
5. Working with the Phase 1 Assessment Group to maintain and develop the bank of question to be used across all assessments
6. Quality control and monitoring of assessments in the relevant semester
22. External Examiners

The Medical School will follow the University Regulations with regard to External Examiners. See: Senate Regulation 7: Regulations governing the assessment of taught programmes 
http://www2.le.ac.uk/offices/sas2/regulations/documents/senatereg7-assessment.pdf
and the Assessment Regulations Handbook:
http://www2.le.ac.uk/offices/sas2/quality/committees/academic-policy-committee/implementation/assessment-regulations/documents/assessment-regulations-handbook

The appointment and role of external examiners is detailed in the University External Examiner Handbook:
http://www2.le.ac.uk/offices/sas2/assessments/external/documents/external-examiner-handbook

Appointment of External Examiners

The Medical School will recommend the appointment of no more than 12 external examiners with a range of interest and expertise, particularly of assessing students within curricula of similar structure, sufficient to deal with all material covered in the core and Student selected components of the MB ChB.

The Department will have regard to the following:

• Only persons of seniority and experience who are able to command authority should be recommended for appointment. In order to have sufficient time for proper performance of their duties, individuals should not normally be expected to hold more than two external examiner-ships at first degree level. The Department will check how many examiner-ships a prospective examiner holds before recommending an appointment.
• Former members of staff or individuals who have been closely associated with the institution should not be invited to become external examiners unless a period of five years has elapsed and all students taught by or with the external examiner have completed their programme.

Period of Service

External examiners are normally invited to hold office for four consecutive years, and may, exceptionally be appointed for a fifth and final year.

Briefing of External Examiners

On appointment each external examiner will be sent:

• The link to the guidance provided by the Quality Office
http://www2.le.ac.uk/offices/sas2/assessments/external
which includes the External Examining Handbook and online training
• a copy of the most recent curriculum documents, which include information about the philosophy, educational principles, structure and detailed aims and learning outcomes of the curriculum
• a written description of the role of external examiners within the MB ChB course
• a copy of the code of practice for assessment of students
• in addition, a briefing meeting will be held in advance of the main summative examinations
Participation of External Examiners in the Summative Assessments

External examiners have the right to scrutinise all assessments taking place within the curriculum. Specifically:

1) Setting of Assessments
   • All question papers used in summative examinations including re-sit examinations shall be sent to external examiners for approval.
   • All in-course assessments and student selected components should be available to external examiners for scrutiny if they wish.

2) Assessment Results
   • External examiners are able to inspect a sample of scripts from the end of year and re-sit examinations, after they have been double marked internally, at the end of each academic year.
   • A sample of students' work from in-course assessment will be available to external examiners for scrutiny if they so wish.

3) Boards of Examiners
   • External examiners have the right to be present at all examiners’ meetings at which significant decisions are to be taken. An external examiner should be present, or available for telephone consultation, at meetings which make award decisions.

4) Comments and Advice
   • External examiners will be encouraged to comment on the assessment process, and they will be consulted about any changes to the assessment procedure.
   • Senior members of the Department will discuss with external examiners the structure and content of course. Comments or suggestions from the external examiners will be considered by the Board of Studies, and explicit decisions made about whether or not to make changes.

5) Written Reports
   • External examiners are required to make written reports to the Vice-Chancellor at the end of each academic year.
   • The reporting system will follow that outlined in the Assessment Regulations Handbook and the External Examiner Handbook.
23. Plagiarism and cheating

All assessments will be subject to the University of Leicester Senate Regulation regarding Discipline:

http://www2.le.ac.uk/offices/sas2/regulations/documents/Senatereg11-discipline.pdf

Student advice regarding plagiarism can be found at:

http://www2.le.ac.uk/offices/ld/resources/study/avoiding-plagiarism

Plagiarism detection software will be used on submitted assessments.

If a candidate is suspected of plagiarism or cheating in any assessment or examination, this will be investigated. If proven, the investigating committee will determine the penalty. It is likely that the penalty would be an ‘Unsatisfactory’ grade in the assessment at least, but could be more severe. Penalties applied in relation to plagiarism or cheating in assessments will be recorded on the student’s official transcript and a record of the offence will be held. Also, the Fitness to Practice Committee will be informed of the offence. Cases of dishonesty may, where relevant, be reported to professional bodies.
24. Absence from an examination

All summative assessments are compulsory.

If a student fails to attend a summative assessment then, regardless of the reason, the student will be managed in exactly the same way as a student who has taken the assessment and failed. This means that such a student will be required to take the Resit Examination and will be assessed at the Resit Examination in exactly the same way as students who attended the examination and are resitting because of a previous failure. Students who fail to attend an assessment can submit a mitigating circumstances form.

If a student does not complete a written examination, they will be marked for the components they have completed but there will be no alteration of the pass mark to account for the proportion of the examination which has not been completed. If a student does not complete a clinical examination, they will receive a ‘fail’ for each element they have not attempted and there will also be no alteration in the overall pass mark to account for the proportion of the examination which has not been completed. The overall pass mark, both in terms of absolute mark and demerit score will be the same as if the whole examination had been completed.

If a student is absent due to ill-health or any other reason they may submit a mitigating circumstances form which will be considered by the Mitigating Circumstances Panel. The outcome of the Mitigating Circumstances Panel will then be considered by the Board of Examiners.

The Board of Examiners will follow the ‘Regulations for the Progression and Award of the degrees of Bachelor of Surgery and Bachelor of Medicine’. 
25. Prizes

A number of prizes are available to students throughout Phase 1 the course.

Phase 1 Prizes

- Phase 1 Prize
- Sir Robert Kilpatrick Prize
- BMA Prize
- Tresidder Prize
- Ballantine Prize
- Amir Gulamhusein Prize

All students in all Phases

- Noel Everson Surgical Prize
- Peter Bell Surgical Prize
- Arthritis Research UK Medical Student Prize

Note: The list of prizes and the criteria for the award of the prize is presently under review. Students will be informed of relevant prizes they can apply for and those linked to performance on the course. A separate document will be published in due course.
APPENDIX A

Outcomes of the MBChB Course (taken from GMC Outcomes for Graduates 2015)

The doctor as a scholar and a scientist

_The graduate will be able to apply to medical practice biomedical scientific principles, method and knowledge relating to: anatomy, biochemistry, cell biology, genetics, immunology, microbiology, molecular biology, nutrition, pathology, pharmacology and physiology. The graduate will be able to:_

a) Explain normal human structure and functions.
b) Explain the scientific bases for common disease presentations.
c) Justify the selection of appropriate investigations for common clinical cases.
d) Explain the fundamental principles underlying such investigative techniques.
e) Select appropriate forms of management for common diseases, and ways of preventing common diseases, and explain their modes of action and their risks from first principles.
f) Demonstrate knowledge of drug actions: therapeutics and pharmacokinetics; drug side effects and interactions, including for multiple treatments, long-term conditions and non-prescribed medication; and also including effects on the population, such as the spread of antibiotic resistance.
g) Make accurate observations of clinical phenomena and appropriate critical analysis of clinical data.

Apply psychological principles, method and knowledge to medical practice.

a) Explain normal human behaviour at an individual level.
b) Discuss psychological concepts of health, illness and disease.
c) Apply theoretical frameworks of psychology to explain the varied responses of individuals, groups and societies to disease.
d) Explain psychological factors that contribute to illness, the course of the disease and the success of treatment.
e) Discuss psychological aspects of behavioural change and treatment compliance.
f) Discuss adaptation to major life changes, such as bereavement; comparing and contrasting the abnormal adjustments that might occur in these situations.
g) Identify appropriate strategies for managing patients with dependence issues and other demonstrations of self-harm.

Apply social science principles, method and knowledge to medical practice.

a) Explain normal human behaviour at a societal level.
b) Discuss sociological concepts of health, illness and disease.
c) Apply theoretical frameworks of sociology to explain the varied responses of individuals, groups and societies to disease.
d) Explain sociological factors that contribute to illness, the course of the disease and the success of treatment – including issues relating to health inequalities, the links between occupation and health and the effects of poverty and affluence.
e) Discuss sociological aspects of behavioural change and treatment compliance.

Apply to medical practice the principles, method and knowledge of population health and the improvement of health and healthcare.

a) Discuss basic principles of health improvement, including the wider determinants of health, health inequalities, health risks and disease surveillance.
b) Assess how health behaviours and outcomes are affected by the diversity of the patient population.
c) Describe measurement methods relevant to the improvement of clinical effectiveness and care.
d) Discuss the principles underlying the development of health and health service policy, including issues relating to health economics and equity, and clinical guidelines.
e) Explain and apply the basic principles of communicable disease control in hospital and community settings.

f) Evaluate and apply epidemiological data in managing healthcare for the individual and the community.

g) Recognise the role of environmental and occupational hazards in ill-health and discuss ways to mitigate their effects.

h) Discuss the role of nutrition in health.

i) Discuss the principles and application of primary, secondary and tertiary prevention of disease.

j) Discuss from a global perspective the determinants of health and disease and variations in healthcare delivery and medical practice.

Apply scientific method and approaches to medical research.

a) Critically appraise the results of relevant diagnostic, prognostic and treatment trials and other qualitative and quantitative studies as reported in the medical and scientific literature.

b) Formulate simple relevant research questions in biomedical science, psychosocial science or population science, and design appropriate studies or experiments to address the questions.

c) Apply findings from the literature to answer questions raised by specific clinical problems.

d) Understand the ethical and governance issues involved in medical research.

The doctor as a practitioner

The graduate will be able to carry out a consultation with a patient:

a) Take and record a patient's medical history, including family and social history, talking to relatives or other carers where appropriate.

b) Elicit patients' questions, their understanding of their condition and treatment options, and their views, concerns, values and preferences.

c) Perform a full physical examination.

d) Perform a mental-state examination.

e) Assess a patient's capacity to make a particular decision in accordance with legal requirements and the GMC's guidance.

f) Determine the extent to which patients want to be involved in decision-making about their care and treatment.

g) Provide explanation, advice, reassurance and support.

Diagnose and manage clinical presentations.

a) Interpret findings from the history, physical examination and mental-state examination, appreciating the importance of clinical, psychological, spiritual, religious, social and cultural factors.

b) Make an initial assessment of a patient's problems and a differential diagnosis. Understand the processes by which doctors make and test a differential diagnosis.

c) Formulate a plan of investigation in partnership with the patient, obtaining informed consent as an essential part of this process.

d) Interpret the results of investigations, including growth charts, x-rays and the results of the diagnostic procedures in Appendix 1.

e) Synthesise a full assessment of the patient's problems and define the likely diagnosis or diagnoses.

f) Make clinical judgements and decisions, based on the available evidence, in conjunction with colleagues and as appropriate for the graduate's level of training and experience. This may include situations of uncertainty.

g) Formulate a plan for treatment, management and discharge, according to established principles and best evidence, in partnership with the patient, their carers, and other health professionals as appropriate. Respond to patients' concerns and preferences, obtain informed consent, and respect the rights of patients to reach decisions with their doctor about their treatment and care and to refuse or limit treatment.

h) Support patients in caring for themselves.
i) Identify the signs that suggest children or other vulnerable people may be suffering from abuse or neglect and know what action to take to safeguard their welfare.

j) Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification, and effective communication and team-working.

**Communicate effectively with patients and colleagues in a medical context.**

a) Communicate clearly, sensitively and effectively with patients, their relatives or other carers, and colleagues from the medical and other professions, by listening, sharing and responding.

b) Communicate clearly, sensitively and effectively with individuals and groups regardless of their age, social, cultural or ethnic backgrounds or their disabilities, including when English is not the patient’s first language.

c) Communicate by spoken, written and electronic methods (including medical records), and be aware of other methods of communication used by patients. The graduate should appreciate the significance of non-verbal communication in the medical consultation.

d) Communicate appropriately in difficult circumstances, such as when breaking bad news, and when discussing sensitive issues, such as alcohol consumption, smoking or obesity.

e) Communicate appropriately with difficult or violent patients.

f) Communicate appropriately with people with mental illness.

g) Communicate appropriately with vulnerable patients.

h) Communicate effectively in various roles, for example, as patient advocate, teacher, manager or improvement leader.

**Provide immediate care in medical emergencies.**

a) Assess and recognise the severity of a clinical presentation and a need for immediate emergency care.

b) Diagnose and manage acute medical emergencies.

c) Provide basic first aid.

d) Provide immediate life support.

e) Provide cardio-pulmonary resuscitation or direct other team members to carry out resuscitation.

**Prescribe drugs safely, effectively and economically.**

a) Establish an accurate drug history, covering both prescribed and other medication.

b) Plan appropriate drug therapy for common indications, including pain and distress.

c) Provide a safe and legal prescription.

d) Calculate appropriate drug doses and record the outcome accurately.

e) Provide patients with appropriate information about their medicines.

f) Access reliable information about medicines.

g) Detect and report adverse drug reactions.

h) Demonstrate awareness that many patients use complementary and alternative therapies, and awareness of the existence and range of these therapies, why patients use them, and how this might affect other types of treatment that patients are receiving.

**Carry out practical procedures safely and effectively.**

a) Be able to perform a range of diagnostic procedures, as listed in Appendix 1 and measure and record the findings.

b) Be able to perform a range of therapeutic procedures, as listed in Appendix 1.

c) Be able to demonstrate correct practice in general aspects of practical procedures, as listed in Appendix 1.

**Use information effectively in a medical context.**

a) Keep accurate, legible and complete clinical records.
b) Make effective use of computers and other information systems, including storing and retrieving information.

c) Keep to the requirements of confidentiality and data protection legislation and codes of practice in all dealings with information.

d) Access information sources and use the information in relation to patient care, health promotion, giving advice and information to patients, and research and education.

e) Apply the principles, method and knowledge of health informatics to medical practice.

The doctor as a professional

The graduate will be able to behave according to ethical and legal principles. The graduate will be able to:

a) Know about and keep to the GMC’s ethical guidance and standards including Good Medical Practice, the ‘Duties of a doctor registered with the GMC’ and supplementary ethical guidance which describe what is expected of all doctors registered with the GMC.

b) Demonstrate awareness of the clinical responsibilities and role of the doctor, making the care of the patient the first concern. Recognise the principles of patient-centred care, including self care, and deal with patients’ healthcare needs in consultation with them and, where appropriate, their relatives or carers.

c) Be polite, considerate, trustworthy and honest, act with integrity, maintain confidentiality, respect patients’ dignity and privacy, and understand the importance of appropriate consent.

d) Respect all patients, colleagues and others regardless of their age, colour, culture, disability, ethnic or national origin, gender, lifestyle, marital or parental status, race, religion or beliefs, sex, sexual orientation, or social or economic status. Graduates will respect patients’ right to hold religious or other beliefs, and take these into account when relevant to treatment options.

e) Recognise the rights and the equal value of all people and how opportunities for some people may be restricted by others’ perceptions.

f) Understand and accept the legal, moral and ethical responsibilities involved in protecting and promoting the health of individual patients, their dependants and the public – including vulnerable groups such as children, older people, people with learning disabilities and people with mental illnesses.

g) Demonstrate knowledge of laws, and systems of professional regulation through the GMC and others, relevant to medical practice, including the ability to complete relevant certificates and legal documents and liaise with the coroner or procurator fiscal where appropriate.

Reflect, learn and teach others.

a) Acquire, assess, apply and integrate new knowledge, learn to adapt to changing circumstances and ensure that patients receive the highest level of professional care.

b) Establish the foundations for lifelong learning and continuing professional development, including a professional development portfolio containing reflections, achievements and learning needs.

c) Continually and systematically reflect on practice and, whenever necessary, translate that reflection into action, using improvement techniques and audit appropriately – for example, by critically appraising the prescribing of others.

d) Manage time and prioritise tasks, and work autonomously when necessary and appropriate.

e) Recognise own personal and professional limits and seek help from colleagues and supervisors when necessary.

f) Function effectively as a mentor and teacher including contributing to the appraisal, assessment and review of colleagues, giving effective feedback, and taking advantage of opportunities to develop these skills.

Learn and work effectively within a multi-professional team.

a) Understand and respect the roles and expertise of health and social care professionals in the context of working and learning as a multi-professional team.
b) Understand the contribution that effective interdisciplinary team-working makes to the delivery of safe and high-quality care.

c) Work with colleagues in ways that best serve the interests of patients, passing on information and handing over care, demonstrating flexibility, adaptability and a problem-solving approach.

d) Demonstrate ability to build team capacity and positive working relationships and undertake various team roles including leadership and the ability to accept leadership by others.

**Protect patients and improve care.**

a) Place patients’ needs and safety at the centre of the care process.

b) Deal effectively with uncertainty and change.

c) Understand the framework in which medicine is practised in the UK, including: the organisation, management and regulation of healthcare provision; the structures, functions and priorities of the NHS; and the roles of, and relationships between, the agencies and services involved in protecting and promoting individual and population health.

d) Promote, monitor and maintain health and safety in the clinical setting, understanding how errors can happen in practice, applying the principles of quality assurance, clinical governance and risk management to medical practice, and understanding responsibilities within the current systems for raising concerns about safety and quality.

e) Understand and have experience of the principles and methods of improvement, including audit, adverse incident reporting and quality improvement, and how to use the results of audit to improve practice.

f) Respond constructively to the outcomes of appraisals, performance reviews and assessments.

g) Demonstrate awareness of the role of doctors as managers, including seeking ways to continually improve the use and prioritisation of resources.

h) Understand the importance of, and the need to keep to, measures to prevent the spread of infection, and apply the principles of infection prevention and control.

i) Recognise own personal health needs, consult and follow the advice of a suitably qualified professional, and protect patients from any risk posed by own health.

j) Recognise the duty to take action if a colleague’s health, performance or conduct is putting patients at risk.
Practical procedures for graduates

Diagnostic procedures

1. Measuring body temperature. - Using an appropriate recording device
2. Measuring pulse rate and blood pressure. - Using manual techniques and automatic electronic devices
3. Trans-cutaneous monitoring of oxygen saturation. - Applying and talking readings from an electronic device which measures the amount of oxygen in a patient’s blood
4. Venepuncture. - Inserting a needle into a patient’s vein to take a sample of blood for testing or to give an injection into the vein.
5. Managing blood samples correctly. - Making sure that blood samples are placed in the correct containers, and that these are labelled correctly and sent to the laboratory promptly and in the correct way. Taking measures to prevent spilling and contamination.
6. Taking blood cultures. - Taking samples of venous blood to test for the growth of infectious organisms in the blood. Requires special blood containers and laboratory procedures.
7. Measuring blood glucose. - Measuring the concentration of glucose in the patient’s blood at the bedside, using appropriate equipment and interpreting the results.
8. Managing an electrocardiograph (ECG) monitor. - Setting up a continuous recording of the electrical activity of the heart. Ensuring the recorder is functioning correctly, and interpreting the tracing.
9. Performing and interpreting a 12-lead electrocardiograph. - Recording a full, detailed tracing of the electrical activity of the heart, using a (ECG) machine recorder (electrocardiograph). Interpreting the recording for signs of heart disease.
10. Basic respiratory function tests. - Carrying out basic tests to see how well the patient’s lungs are working (for example, how much air they can breathe out in one second).
11. Urinalysis using Multistix. - Testing a sample of urine for abnormal contents, such as blood or protein. The urine is applied to a plastic strip with chemicals which change colour in response to specific abnormalities.
12. Advising patients on how to collect a mid-stream urine specimen. - Obtaining a sample of urine from a patient, usually to check for the presence of infection, using a method which reduces the risk of contamination by skin bacteria.
13. Taking nose, throat and skin swabs. - Using the correct technique to apply sterile swabs to the nose, throat and skin.
14. Nutritional assessment. - Making an assessment of the patient’s state of nutrition. This includes an evaluation of their diet; their general physical condition; and measurement of height, weight and body mass index.
15. Pregnancy testing. - Performing a test of the urine to detect hormones which indicate that the patient is pregnant.

Therapeutic procedures

16. Administering oxygen. - Allowing the patient to breathe a higher concentration of oxygen than normal, via a face mask or other equipment.
17. Establishing peripheral intravenous access and setting up an infusion; use of infusion devices. - Puncturing a patient’s vein in order to insert an indwelling plastic tube (known as a ‘cannula’), to allow fluids to be infused into the vein (a ‘drip’). Connecting the tube to a source of fluid. Correct choice of fluids and their doses. Correct use of electronic devices which drive and regulate the rate of fluid administration.
18. Making up drugs for parenteral administration. - Preparing medicines in a form suitable for injection into the patient’s vein. May involve adding the drug to a volume of fluid to make up the correct concentration for injection.
19. Dosage and administration of insulin and use of sliding scales. - Calculating how many units of insulin a patient requires, what strength of insulin solution to use, and how it should be given (for example, into the skin, or into a vein). Use of a ‘sliding scale’ which links the number of units to the patient’s blood glucose measurement at the time.
20. Subcutaneous and intramuscular injections. - Giving injections beneath the skin and into muscle.
21. **Blood transfusion.** - Following the correct procedures to give a transfusion of blood into the vein of a patient (including correct identification of the patient and checking blood groups). Observation for possible reactions to the transfusion, and actions if they occur.

22. **Male and female urinary catheterisation.** - Passing a tube into the urinary bladder to permit drainage of urine, in male and female patients.

23. **Instructing patients in the use of devices for inhaled medication.** - Providing instructions for patients about how to use inhalers correctly, for example, to treat asthma.

24. **Use of local anaesthetics.** - Using drugs which produce numbness and prevent pain, either applied directly to the skin or injected into skin or body tissues.

25. **Skin suturing.** - Repairing defects in the skin by inserting stitches (normally includes use of local anaesthetic).

26. **Wound care and basic wound dressing.** - Providing basic care of surgical or traumatic wounds and applying dressings appropriately.

27. **Correct techniques for ‘moving and handling’ including patients.** - Using, or directing other team members to use, approved methods for moving, lifting and handling people or objects, in the context of clinical care, using methods that avoid injury to patients, colleagues, or oneself.

### General aspects of practical procedures

28. **Giving information about the procedure, obtaining and recording consent, and ensuring appropriate aftercare.** - Making sure that the patient is fully informed, agrees to the procedure being performed, and is cared for and watched appropriately after the procedure.

29. **Hand washing (including surgical ‘scrubbing up’).** - Following approved processes for cleaning hands before procedures or surgical operations.

30. **Use of personal protective equipment (gloves, gowns, masks).** - Making correct use of equipment designed to prevent the spread of body fluids or cross-infection between the operator and the patient.

31. **Infection control in relation to procedures.** - Taking all steps necessary to prevent the spread of infection before, during or after a procedure.

32. **Safe disposal of clinical waste, needles and other ‘sharps’.** - Ensuring that these materials are handled carefully and placed in a suitable container for disposal.