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1. Introduction

This document prescribes the conduct of the assessment of students in the MB ChB curricula at Leicester Medical School, amplifying the general guidance of the University of Leicester regulations. This Code of Practice overrides any other University Code of Practice for assessment where they differ. Minor changes of assessment processes may be made with the approval of the Board of Examiners, providing students are properly informed in good time.

Assessment processes in the Medical School are subject to on-going review in the light of experience and guidance from the General Medical Council and other bodies. The Medical School reserves the right to modify details in the light of this review, whilst preserving the overall design and purpose. The code of Practice for Assessment will be reviewed on an annual basis. The annual revised version will apply to all students on the course at the time they are published. Any significant changes will be explained to the students so that ample time is provided for students to be aware of the assessment strategy that applies to their year.

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

2. Assessment Strategy

Overview of Assessment

GMC Domain 5

The aim of the School is to ensure that assessments are appropriate, valid, reliable, generalisable, and fair and are designed to ensure that graduates have achieved all of the competences specified by the General Medical Council and are fit to practise as safe junior doctors.

The primary purpose of assessment of the core curriculum is to provide for all students a powerful stimulus for cumulative, integrated, deep learning which will underpin clinical practice for life.

Assessments are designed to identify those students who are not ready to progress from one year of the course to the next and those students who are progressing exceptionally well.

The key feature of assessment is that the content which is assessed is cumulative. The style of examination is also intended to test the application of this progressive competence to clinical problems, and the marking and methods used to determine grades are set to encourage breadth of learning, and to discourage as strongly as possible the adoption of selective, focussed learning strategies.

The M.B., Ch.B. 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 Medical School is required to demonstrate that students are able to practise as safe future doctors.

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

- 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 M.B., Ch.B. programme there will be:

- **An end of year examination**
  This will normally consist of a written assessment and a clinical assessment (except for year 2 of the 5-year cohort who will only have a written assessment).

- **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, with the exception of the first year resit, irrespective of the nature of the weaknesses which make a student liable for it. It is a resit examination of the whole course, not a resit of failed components.

The following pattern of **summative** assessments will be followed:

**WRITTEN ASSESSMENTS**

The written assessment will consist of one paper of short answer questions (SAQ) and one paper of single best answer questions (SBA). 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 depth and breadth of knowledge.

**Five year course**

In Year 1 there will be a written assessment at the end of semester 1 (ESA1) and again at the end of semester 2 (ESA 2). The marks from both papers will be combined to award a single mark that is used to determine if a student is satisfactory. The benefit of this approach is that if a student 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 is satisfactory they are not required to take the re-sit examination.

In Year 2, the same pattern of written assessments will be followed as in year 1. 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 is satisfactory.

In Year 3 there will be a written assessment at the end of Semester 5 (the Primary Professional Examination), prior to entry into Phase 2.

In Year 4 there will be a written assessment at the end of the junior rotation (the Intermediate Professional Examination).

In Year 5 there will be a written assessment at the end of the senior rotation (the Final Professional Examination).

**Four year course**

For students on the 4-year graduate entry course, the assessments will match that of year 1, 3, 4 and 5 of the five year course.
CLINICAL ASSESSMENTS

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

Five year course

Year 1: There will be a Year 1 OSCE at the end of Semester 2.
Year 3: All students will take an OSCE as part of the Primary Professional Examination
Year 4: All students will take an OSCE as part of the Intermediate Professional Examination
Year 5: All students will take an OSCE as part of the Final Professional Examination

Four year course

For students on the 4-year graduate entry course, the assessments will be in years 1, 2, 3 and 4.

Note: In Year 1 of the course, for all students, the OSCE and the Written element will be considered separately. Students who are unsatisfactory in either, or both elements, will take the re-sit examination only for the component in which they were unsatisfactory. This is an exception to the general rule.

In all other years with a written and a clinical examination the re-sit will require the student to be satisfactory in both components.

STUDENT SELECTED COMPONENTS

The primary purpose of assessment of Student Selected Components is to stimulate students to follow their interests, to study topics in depth, and to strive for excellence. Each element is therefore assessed separately using a mix of assessment methods appropriate to its aims and outcomes. Students may choose to focus upon topics of their choice and be assessed on their depth of understanding and capacity for evaluation.

PROFESSIONAL PRACTICE

All students are required to satisfactorily complete a ‘Professional Portfolio for Safe Practice’. This has been introduced as a new element for students starting in 2012 and will be strengthened for students in 2013 and subsequent years. This will replace the present ‘Personal and Professional Development’ (PPD) portfolio. The PPD is assessed in Year 5 in a formative manner. The new Professional Portfolio for Safe Practice will be assessed in a summative manner in the final year of the course. Once established in the course there will be an equivalent summative assessment at the time of the Primary Professional Examination. Students will be notified of this development at least a year prior to its introduction.
3. Summary Table
SUMMARY ASSESSMENT STRATEGY

FIVE YEAR COURSE

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Written:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESA 1 - 12 Short Answer Questions (SAQ); 50 Single Best Answer (SBA) questions</td>
<td></td>
</tr>
<tr>
<td>ESA 2 - 12 Short answer; 50 SBA</td>
<td></td>
</tr>
<tr>
<td>To give a single overall satisfactory/unsatisfactory grade</td>
<td></td>
</tr>
<tr>
<td>OSCE – 12 to 15 stations of 5 to 10 minutes each. (for review in 2014/15)</td>
<td></td>
</tr>
<tr>
<td>Written and OSCE regarded as separate exams, and students only re-sit the component that they failed.</td>
<td></td>
</tr>
<tr>
<td>Year 1 re-sit Examination</td>
<td></td>
</tr>
<tr>
<td>Written: 15 Short answer; 100 SBA</td>
<td></td>
</tr>
<tr>
<td>Re-sit OSCE: 12 to 15 stations of 5 to 10 minutes each.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2</th>
<th>Written:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESA 3 - 12 Short answer; 50 SBA</td>
<td></td>
</tr>
<tr>
<td>ESA 2 - 12 Short answer; 50 SBA</td>
<td></td>
</tr>
<tr>
<td>To give a single overall satisfactory/unsatisfactory grade</td>
<td></td>
</tr>
<tr>
<td>Year 2 re-sit Examination</td>
<td></td>
</tr>
<tr>
<td>Written: 15 Short answer; 100 SBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 3</th>
<th>Primary Professional Examination (PPE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written: 15 SAQ; 100 SBA</td>
<td></td>
</tr>
<tr>
<td>OSCE: 8 x 10 minute stations (or equivalent). To generate 16 separate items</td>
<td></td>
</tr>
<tr>
<td>Required to pass both independently</td>
<td></td>
</tr>
<tr>
<td>SSCs and People and Disease (Living with Long term conditions) dissertation</td>
<td></td>
</tr>
<tr>
<td>Re-sit PPE</td>
<td></td>
</tr>
<tr>
<td>Written: 15 SAQ; 100 SBA</td>
<td></td>
</tr>
<tr>
<td>OSCE: 8 x 10 minute stations (or equivalent). To generate 16 separate items</td>
<td></td>
</tr>
<tr>
<td>Required to pass both independently</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 4</th>
<th>Intermediate Professional Examination (IPE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written: 15 short answer; 100 SBA</td>
<td></td>
</tr>
<tr>
<td>OSCE: 10 x 10 minute stations (or equivalent). To generate 20 separate items</td>
<td></td>
</tr>
<tr>
<td>Re-sit IPE</td>
<td></td>
</tr>
<tr>
<td>Written: 15 short answer; 100 SBA</td>
<td></td>
</tr>
<tr>
<td>OSCE: 10 x 10 minute stations (or equivalent). To generate 20 separate items</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 5</th>
<th>Final Professional Examination (FPE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written: 15 short answer; 100 SBA</td>
<td></td>
</tr>
<tr>
<td>OSCE: 14 x 10 minute stations (or equivalent). To generate 28 separate item</td>
<td></td>
</tr>
<tr>
<td>Re-sit Finals</td>
<td></td>
</tr>
<tr>
<td>Written: 15 short answer; 100 SBA</td>
<td></td>
</tr>
<tr>
<td>OSCE: 14 x 10 minute stations (or equivalent). To generate 28 separate items</td>
<td></td>
</tr>
</tbody>
</table>
## FOUR YEAR COURSE

| Year 1 | Written:  
|--------|-------------------------------------------------------------|
|        | ESA 1 - 12 Short Answer Questions (SAQ); 50 Single Best Answer (SBA) questions  
|        | ESA 2 - 12 Short answer; 50 SBA  
|        | To give a single overall satisfactory/unsatisfactory grade  
|        | OSCE – 12 to 15 stations of 5 to 10 minutes each. (for review in 2014/15)  
|        | Written and OSCE regarded as separate exams, and students only re-sit the component that they failed.  
|        | Year 1 re-sit Examination  
|        | Written: 15 Short answer; 100 SBA  
|        | Re-sit OSCE: 12 to 15 stations of 5 to 10 minutes each.  
| Year 2 | Primary Professional Examination (PPE)  
|        | Written: 15 SAQ; 100 SBA  
|        | OSCE: 10 x 10 minute stations (or equivalent). To generate 20 separate items  
|        | Required to pass both independently  
|        | Patient Centred Clinical Practice  
|        | Re-sit PPE  
|        | Written: 15 SAQ; 100 SBA  
|        | OSCE: 10 x 10 minute stations (or equivalent). To generate 20 separate items  
|        | Required to pass both independently  
| Year 3 | Intermediate Professional Examination (IPE)  
|        | Written: 15 short answer; 100 SBA  
|        | OSCE: 8 x 10 minute stations (or equivalent). To generate 16 separate items  
|        | Re-sit IPE  
|        | Written: 15 short answer; 100 SBA  
|        | OSCE: 8 x 10 minute stations (or equivalent). To generate 16 separate items  
| Year 4 | Final Professional Examination (FPE)  
|        | Written: 15 short answer; 100 SBA  
|        | OSCE: 14 x 10 minute stations (or equivalent). To generate 28 separate items  
|        | Re-sit Finals  
|        | Written: 15 short answer; 100 SBA  
|        | OSCE: 14 x 10 minute stations (or equivalent). To generate 28 separate items  

\[\text{December 1\textsuperscript{st} 2014}\]
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. 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 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 **any** student achieving 60% or more of the available marks will be deemed as at least satisfactory. It is not the case that 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 are 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). However a student **must** make a **bona fide** attempt at each assessment for each assessment attempt to be deemed valid and contribute towards attainment of the primary standard. This will normally be determined by a student reaching a standard (not greater than the primary standard) across the domains examined by an assessment.
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 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:

- All End of Semester (ESA 1, 2, 3 & 4) written papers (SBA and SAQ)
- The Year 1 and Year 2 re-sit examinations
- The written components (SBA and SAQ) of the Primary Professional Examination (PPE)
- The written components (SBA and SAQ) of the PPE re-sit
- The written components (SBA and SAQ) of the Intermediate Professional Examination (IPE)
- The written components (SBA and SAQ) of the IPE re-sit
- The written components (SBA and SAQ) of the Final Professional Examination (FPE)
- The written components (SBA and SAQ) of the FPE re-sit

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 led by a member of the relevant Assessment Group and attended by, ideally, 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. Therefore the standard setting group will appropriately change from Phase 1 to Phase 2 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. In order to achieve rigorous and transparent standard setting with these parameters in mind a Phase 1 and Phase 2 Standard Setting Group will be formed; membership of which will be directed and approved by the Assessment Executive. Performance feedback (for example correlations between Angoff scores and actual student performance) 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 and recorded by the appropriate Assessment Group, which will be applied following post-examination analysis. Normally the primary standard applied will be the sum of the averaged Angoff proportions obtained at standard setting.

**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. This method will therefore be applied to the following assessments:

- Year One OSCE
- Year One resit OSCE
- The OSCE of the PPE
- The OSCE of the PPE resit
- The OSCE of the IPE
- The OSCE of the IPE resit
- The OSCE of the FPE
- The OSCE of the FPE resit

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

1. Fail
2. Borderline
3. Pass
4. Good
5. Excellent

The OSCE 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 OSCE the global ratings will be used to determine the primary standard for each OSCE station and the overall primary standard by the standard BGR method.

Where an OSCE station or sub-station demands a written response from a student in the absence of an examiner the Angoff method will have been used to determine the primary standard (these stations are however undergoing phased removal from OSCEs).

For each student the Borderline and Clear fail awards will be reviewed. Each student will be given 2 demerit marks for a Clear fail and 1 demerit mark for a Borderline. These marks will be summed.
Once the standard setting using the BGR has been completed a decision on whether a student is satisfactory or unsatisfactory will be based on the following two criteria:

- A student must achieve the overall pass mark for the OCSE (this ensures a sufficiently high standard)
- A student must not exceed a minimum 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 OSCE.

METHOD FOR DETERMINING SECONDARY STANDARDS

The secondary standards will be used for determining the award of merit and distinction points. 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 points.

The recommendation for merit and distinction points will be made by the Assessment Group and confirmed by the Panel and Board of Examiner, 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) is 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 Board of Examiners.

Post examination analysis of SBA instruments

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

- A primary distractor analysis in order to validate the answer key and 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

A fit to normal distribution will occur with outliers corrected

Student Z-scores will be calculated

Item analysis will be performed to calculate:
  - The Item-difficulty index ($P_i$) and item-difficulty index corrected for the effects of guessing ($P_{DI}$)
  - The item-discrimination index ($d$) by point bi-serial correlation
  - The statistical significance of each item
  - The reliability of the SBA instrument by Cronbach’s co-efficient alpha ($\alpha$)
  - The reliability of the SBA instrument by Cronbach’s co-efficient alpha ($\alpha$) with each item removed
  - The standard error of measurement (SEM)

In due course the 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 will be calculated
- Item analysis will be performed to calculate:
  - The Item-difficulty index ($P_i$)
  - The item-discrimination ($d$) index (by Pearson correlation coefficients)
  - The statistical significance of each item
  - The reliability of the SAQ instrument by Cronbach’s co-efficient alpha ($\alpha$)
  - The reliability of the SAQ instrument by Cronbach’s co-efficient alpha ($\alpha$) with each item removed
  - The standard error of measurement (SEM)

Once the post examination quality assurance process has been completed moderation will occur in order to monitor and reduced inter-rater variability, ensure marking quality and the credibility of the primary standard and maintain fair standards. Moderation will involve the anonymous review marking by the relevant Standard Setting Group of the following student scripts during a Moderation Meeting:

1. The scripts of students whose total scores fall in the range of the primary standard -5 marks to the primary standard +2 marks.
2. Dependent upon cohort performance a random selection of students whose total scores lie within the merit or distinction boundaries may also be moderated.

Post examination analysis of OSCE instruments

Following implementation of the OSCE instrument the following will be performed:
• The primary standard for each OSCE 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 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 OSCE by Kuder-Richardson 20 (KR-20)
  o The standard error of measurement (SEM)
In due course Generalisability theory analysis will be introduced
5. Written Assessments

Each Year summative assessment includes a paper of short answer questions (SAQ) and a paper of single best answer questions (SBA).

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, questions spanning units in that semester and material from previous semesters. The proportion of these components will be determined by the Phase 1 Assessment Group according to approximate guidelines with a steadily increasing proportion of more integrating questions from earlier to later semesters.

In Phase 2 of the course this will include specific questions from the blocks in the preceding year as well as material from all previous years. There is an expectation that relevant Phase 1 material will be included in the examination, especially where a knowledge and understanding of basic science is required for the diagnosis and management of patients.

All questions in all end-of-semester assessments or end of year assessments will be compulsory. Students will be graded on the paper(s) 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 units or 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 team marked against these model answers (see over).

Single best answer questions

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

Usually 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 in the UK.
SBAs may be drawn from the national question bank maintained by the Medical Schools’ Council Assessment Alliance.

Under no circumstances will compensation be allowed between question sets.

**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 ‘Tomorrow’s Doctors’ (2009). Across individual assessments and the whole pattern of assessments for a cohort there will be systematic sampling of key presentations, linked to learning outcomes for the curriculum as a whole defined by the General Medical Council in its document ‘Tomorrow’s Doctors’ (2009) (see Appendix A).

**MARKING OF WRITTEN PAPERS**

All constructed response (short answer) questions in written assessments 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.
6. Clinical Assessments

All clinical assessments will be in the Objective Structured Clinical Examination (OSCE) format. This consists of a series of ‘stations’ which candidates rotate around. At each station the candidates will perform a defined task, 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 viva voce examination.

There will be an Objective Structured Clinical Examination taken by all students at the end of the first year of the four and five year course, at the Primary Professional Examination, the Intermediate Professional Examination and the Final Professional Examination.

The standard setting for the OSCE examination is described under the heading of ‘Standard Setting’.

The summary of the OSCE for each year examination is described in the information provided for each year.
7. Year 1 Examinations: ESA 1 and 2

The Year 1 examinations will be taken by all students on the 5-year and 4-year programmes.

Semester 1:
Written Paper: All students will take an End of Semester 1 Assessment (ESA) consisting of two papers.
Paper 1: 12 short answer questions
Paper 2: 50 SBA questions.
Note: it is anticipated that in future years the number of SBA questions will increase.

Semester 2:
Written Paper: All students will take an End of Semester 2 Assessment consisting of two papers.
Paper 1: 12 short answer questions
Paper 2: 50 SBA questions.
Note: it is anticipated that in future years the number of SBA questions will increase.

As described previously the ESA1 and ESA2 written assessments will be combined to give a single end of Year result.

OSCE: All students will take an OCSE examination at the end of Semester 2.
The OSCE will consist of between 12 to 15 stations of 5 to 10 minutes each.
The material used within the stations will represent the practical work performed within the Units, the communication skills training and the procedural skills covered in Year 1.
The composition of the OSCE will be determined by the Assessment Group and outlined to the students well in advance of the examination.

Students who are unsatisfactory in either the Year written assessment or the OSCE examination will be required to take the resit that element alone (written or OSCE).

THE RESIT EXAMINATION

Written Paper:
Paper 1: 15 Short answer questions
Paper 2: 100 SBA questions

OSCE:
The OSCE will consist of between 12 to 15 stations of 5 to 10 minutes each.

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

The Year 2 examinations are taken by the 5-year students (the 4-year graduate entry students do not take these assessments).

Semester 3:
Written Paper: All students will take an End of Semester 3 Assessment consisting of two papers.
Paper 1: 12 short answer questions
Paper 2: 50 SBA questions.
Note: it is anticipated that in future years the number of SBA questions will increase.

Semester 4:
Written Paper: All students will take an End of Semester 4 Assessment consisting of two papers.
Paper 1: 12 short answer questions
Paper 2: 50 SBA questions.
Note: it is anticipated that in future years the number of SBA questions will increase.

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

Students who are unsatisfactory in the Year written assessment will be required to take the Year 2 resit examination.

THE RESIT EXAMINATION

Written Paper:
Paper 1: 15 Short answer questions
Paper 2: 100 SBA questions

Students who are unsatisfactory in the Year 2 resit examination will be graded as Unsatisfactory for the Year.
9. Primary Professional Examination: PPE

The Primary Professional Examination (PPE) is taken by all students; the 5-year students at the end of Semester 5 and the 4-year students at the end of Semester 3. The examination consists of a written examination and an OSCE examination.

WRITTEN PAPERS:
Paper 1: 15 short answer questions
Paper 2: 100 single best answer questions

OSCE:
The OSCE will consist of eight stations each of up to 10 minutes.
The examination will generate 16 separate items to be awarded a mark or grade.
The total number of stations may vary slightly with the majority of stations generating two separate mark items.
It is also permitted for some stations to be combined to allow for a longer station, with the proviso that the mark items are also increased.
Station content: The content of the stations will be taken from the following:
- Practical elements of all Units
- Communication Skills Course
- Consultation Skills Foundation Course
- Procedural skills completed to date

The composition of the OSCE will be determined by the Assessment Group and outlined to the students well in advance of the examination.

Marking of each station may be by direct observation by an examiner and /or simulated patient Marking shall be according to pre-defined schedules.

For stations which involve elements of clinical consultations, scoring will follow standardised checklist which define the competencies required and link to the teaching delivered.

Students who are unsatisfactory in either the PPE written assessment or the OSCE examination will be required to take the PPE resit examination.
THE RESIT EXAMINATION

Written Paper:
Paper 1: 15 Short answer questions
Paper 2: 100 SBA questions

OSCE:
The resit OSCE will consist of eight stations each of up to 10 minutes.
The examination will generate 16 separate items to be awarded a mark or grade.
The resit OSCE will be structured in an equivalent manner to the main PPE OSCE.

Students who are graded as unsatisfactory for either the PPE resit written or OSCE examination will be graded as Unsatisfactory for the Year.
10. Intermediate Professional Examination: IPE

The Intermediate Professional Examination (IPE) must be taken by all students at the end of the junior rotation of Phase II. Students must normally have attended all blocks in the rotation to be eligible to take the examination. It will normally be scheduled in February or March of Year four for 5-year students and year three for 4-year students. The Intermediate Professional Examination consists of two components. First a written examination, second a clinical examination. Students who fail to satisfy the examiners in either or both parts of the Intermediate Professional Examination must re-sit both parts of the examination. The resit examination is held either in late May or early June.

WRITTEN PAPERS

Each student will sit two written papers. One paper, of at least two and a half hours duration will comprise 15 short answer questions. The other paper, of at least two hours duration, will be a single response format paper and consist of single best answer multiple choice questions (SBAs). The total number of items in the single response format will be between 75 and 150.

The Phase 2 Assessment Group is responsible for the preparation of written papers.

The standard guidance for written papers will be followed.

Over the paper the questions must test a broad range of curriculum objectives. It is the responsibility of the Phase 2 Assessment Group, advised by the external examiners, to ensure appropriate spread of subject content across the papers to blueprint to the curriculum outcomes as effectively as possible.

Standard setting will follow the guidance previously outlined.

For each examination, the Assessment Group will appoint a ‘Scoring Group’ to mark all papers in that examination. The scoring group will follow the guidance previously outlined.

THE CLINICAL EXAM

Clinical assessment is by a structured clinical examination consisting of a series of stations. The precise configuration of the examination will be decided year by year to be consistent with the following guidelines.

Structure of the assessment

Each student will be examined at a series of stations made up from the components described below. Components may be combined together to make longer stations testing integration of competencies:

- Observed History Taking and Examination
- Interpretation of Investigations
- Consultation and management of a patient with mental health issues
- Information interpretation and explanation (with pharmacology component)
- Procedural Skills
**Observed history taking and examination:** up to three 25 minute stations

At each station the student will be observed by an examiner taking a history from and examining a real or simulated patient. Stations may be extended for up to three minutes to facilitate logistics of the examination. Patients will be drawn from the following four categories for each day that the assessment runs. The selection may vary from day to day. Any given student will not be tested with more than one patient in any category.

- A patient with a Cardio-respiratory problem
- A patient with a Musculo-skeletal problem
- A patient with a Gastro-intestinal problem
- A patient with an endocrinological or renal problem
- A patient with a surgical problem

For each circuit there will be parallel versions of each station. The patients in each version will be drawn from the same category, and, although comparable, will not be identical. For each patient selected a written brief will be constructed including:

- a suitable script to introduce the patient to the examinee at the outset of the examination.
- a written version of the salient points of the patient's history.
- an agreed view of the most appropriate physical examination and a list of the abnormal signs which examinees are expected to detect.
- an agreed view on the likely underlying mechanisms for the patient's problems.

The stations will follow a standard protocol

1. on arrival at the consulting room the student will read a brief introduction to the patient before entering the examination room.
2. the examiner will then observe the student taking a focused history.
3. the examiner then asks what is the most appropriate examination to perform and why. If the student replies correctly they will be invited to perform that examination. If the reply is incorrect it will be noted and the student will be directed to the most appropriate examination.
4. the examiner will then ask the student to describe their findings and how they help in the elucidation of the problem presented by the patient.
5. The examiner will also ask questions pertinent to the case to assess the student’s level of understanding.

Each Observed History Taking and Examination station will receive four sets of marks.

**Interpretation of Investigations:** up to four 5 minute stations

At each of these stations, students will be presented with a clinical scenario involving the interpretation of investigations. Students will be given the results of investigations, including, but not limited to, plain X-ray, contrast X-ray, cross-sectional imaging, ECGs, lung function tests, blood gasses, serum biochemistry, serum haematology, urinalysis and microbiology results. They will be asked to identify abnormalities and suggest possible explanations for the results based on the clinical context presented.

Students will receive 1 set of marks for each single investigation station.
Consultation and management of a patient with mental health issues one 20 minute station
Students will be presented with a scenario involving a simulated patient with either a mental health problem or a patient presenting to primary care. They will be given an introductory statements and instructions with what they are expected to do during the station.
This will involve at least some of the following:
- Obtaining a current mental health history
- Obtaining a past mental health history
- Obtaining a focused medical history
- Making a mental health assessment of the patient
- Constructing a management plan
- Answering questions to explore deeper understanding of issues relating to the case

Each Mental Health / primary care station will receive four sets of marks.

Management stations: 1 – 2 stations lasting 10-20 minutes each
Students will be given a clinical scenario and then asked to perform specific tasks related to patient management. There will be a simulated patient and an examiner present for this station.
This can involve a number of the following components:
- Identification and communication of key issues
- Discussion of immediate management issues
- Important points to handover
- Consideration of longer-term management strategies
- Discussion with patient about further investigations
- Discussion about starting medications with patient
- Discussion about treatment side effects with patient
- Discussion about adverse drug events
- Discussion with patient about management options / plans

Each Management station will receive two to four sets of marks depending on the number of elements students are required to complete. The exact number of sets of marks will be clearly communicated to the examinees.

Procedural skills: a 20 minute station
These will be set within a clinical context and will involve responses beyond simply performing the clinical skill.
Examples of associated tasks include but are not limited to: -
- Emergency assessment of a case
- writing up a prescription
- writing up a fluid balance chart
- interpreting a patient’s bedside charts
- Communicate information
The procedural skill itself will include elements from some or all of: communication skill, safety, infection prevention, procedural skill and team working
Each procedural skill stations will receive three to four sets of marks depending on the number of elements students are required to complete. The exact number of sets of marks will be clearly communicated to the examinees.

**Scoring of student performance**

Each student will be scored for each competence or element of the OSCE assessment using a standardised mark sheet together with a global rating as outlined in the section on threshold setting.

The overall examination will be set to yield a **total of 22 - 24 sets of marks** from an appropriate combination of stations. Descriptors will be produced so that three or four separate sets of marks are awarded for a twenty minute station, two for a ten minute station, and one for a five minute station. The combination of different types of station, but not the precise nature of each, will be published to students before the assessment.

In order to be graded as satisfactory a student must:

- Achieve the overall pass mark
- Must not exceed a minimum number of demerit marks which is likely to be between 7 and 11; and will be decided by the Panel or Board of Examiners.

**Reporting of exam irregularities**

It is anticipated that the OSCE examinations will proceed without incident. However if there are any perceived examination irregularities noted by students, patients, simulated patients or examiners, these should be reported on the day of the examination to a senior member of staff.
THE RESIT EXAMINATION

Written Paper:
Paper 1: 15 Short answer questions
Paper 2: 100 SBA questions

OSCE:
The resit OSCE will have the same format as the main Intermediate Professional Examination. The examination will generate a total of 22 - 24 sets of marks.

Students who are graded as unsatisfactory for either the IPE resit written or OSCE examination will be graded as Unsatisfactory for the Year.

Reporting of exam irregularities

It is anticipated that the OSCE examinations will proceed without incident. However if there are any perceived examination irregularities noted by students, patients, simulated patients or examiners, these should be reported on the day of the examination to a senior member of staff.
11. Final Professional Examination: FPE

The Final Professional Examination must be taken by all students after the final block of Phase II, but before the elective period and preparation for Professional Practice. Students must normally have attended all blocks in the rotation to be eligible to take the examination at first sit. This is normally in March or April of year five for 5-year students and year four for 4-year students. The examination is in two parts, first a written examination, second, a clinical examination. Students must satisfy the examiners in both parts. No compensation between them is allowed.

WRITTEN PAPERS

Each student will sit two written papers. One paper, of at least two and a half hours duration will comprise 15 Short Answer Questions. The other paper, of at least two hours duration, will be a single response format paper and consist of single best answer multiple choice questions (SBAs). The total number of items in the single response format will be between 75 and 150.

The Phase 2 Assessment Group is responsible for the preparation of written papers.

The standard guidance for written papers will be followed.

Over the paper the questions must test a broad range of curriculum objectives. It is the responsibility of the Phase 2 Assessment Group, advised by the external examiners, to ensure appropriate spread of subject content across the papers to blueprint to the curriculum outcomes as effectively as possible.

Standard setting will follow the guidance previously outlined.

For each examination, the Assessment Group will appoint a ‘Scoring Group’ to mark all papers in that examination. The scoring group will follow the guidance previously outlined.

THE CLINICAL EXAM

Clinical assessment is by a structured clinical examination consisting of a series of stations, each scored according to standard criteria.

Structure of the assessment

Each student will be examined at a series of stations made up from the components described below. Components may be combined together to make longer stations testing integration of competencies:

**Observed history taking and examination:** up to four 25 minute stations

At each station the student will be observed by an examiner taking a history from and examining a real or simulated patient. Station times may be extended to facilitate logistics of the examination. Patients will be drawn from the following categories for each day that the assessment runs.

- A patient with a Chronic illness
- A patient with Cancer or Cancer related condition (medical or surgical)
For each circuit there will be parallel versions of each station. The patients in each version will be drawn from the same category, and, although comparable, will not be identical. For each patient selected a written brief will be constructed including:

- a suitable script to introduce the patient to the examinee at the outset of the examination.
- a written version of the salient points of the patient's history.
- an agreed view of the most appropriate physical examination and a list of the abnormal signs which examinees are expected to detect.
- an agreed view on the likely underlying mechanisms for the patient's problems.

The stations will follow a standard protocol

1. on arrival at the consulting room the student will read a brief introduction to the patient before entering the examination room.
2. the examiner will then observe the student taking a focused history.
3. the examiner then asks what is the most appropriate examination to perform and why. If the student replies correctly they will be invited to perform that examination. If the reply is incorrect it will be noted and the student will be directed to the most appropriate examination.
4. the examiner will then ask the student to describe their findings and how they help in the elucidation of the problem presented by the patient.
5. The examiner will also ask questions pertinent to the case to assess the student’s level of understanding.

Each Observed History and Examination will receive four sets of marks

**Special Senses Station** :- a two-part, 20 minute station
This station will comprise two separate encounters, each lasting 10 minutes
One half of the station will be an ophthalmology problem and the other will be an ENT scenario.
A real or simulated patient may be used for either case
Cases may involve one or more of the following elements:
- examination of a patient and problem-solving
- interpretation of results
- construction of a management plan

Each encounter will last for 10 minutes and will receive 2 grades.

**Acute Care Scenario – a 20 minute station**
These will be set within a clinical context and are designed to assess the approach toward a critically ill patient.
Students will be expected to make an initial assessment of the case and then proceed appropriately.
Each acute care scenario will also include the **performance of a clinical skill**. The procedural skill itself will include elements from some or all of: communication skill, safety, infection prevention, procedural skill and team working

Other tasks that may form part of the station include:
- performing or requesting investigations
- writing up a prescription
• writing up a fluid balance chart
• interpreting a patient’s bedside charts
• Communicate information

Each acute care stations will receive four grades.

**Chronic Care Scenario**: a 20 minute station.
Students will be expected to run a consultation in the same manner as an outpatient or general practice consultation. The simulated patient will have a chronic condition but this may be an initial presentation. Students will be expected to assess and manage the patient.

As part of the consultation, students will be expected to take a focussed history and conduct a targeted examination, construct and communicate a management plan with the patient and allow the patient to question the plan.

**Child health and Obstetrics & Gynaecology Clinical Scenarios – 20 minutes (2x 10 minute stations)**
Students will be expected to assess and manage a simulated child health and O&G presentation.

The child health station will involve a simulated patient and will involve one or more of the following elements:
• Information gathering
• Data interpretation
• Interpretation of investigations
• Discussing a management plan
• Writing a prescription
• Explaining a management plan
• Offering advice

The obstetrics and gynaecology station may involve a simulated patient. It will comprise one or more of the following elements:
• Information gathering
• Demonstration of examination technique
• Data interpretation
• Interpretation of investigations
• Discussing a management plan
• Writing a prescription
• Explaining a management plan or procedure
• Offering advice

The child health and Obstetrics and Gynaecology components will both be 10 minutes long and be awarded 2 grades each.

**Procedural skills**: up to four 5 or 10 minute stations
Students will be tested on a selection of skills from those linked defined for the course. These station(s) may be linked to other stations, such as the acute and/or chronic scenario.
The procedural skill itself will include elements from some or all of: communication skill, safety, infection prevention, procedural skill and team working.

**Mental Health/Ethics/Professionalism:** a 20 minute station

The student will have a 20 minute clinical encounter with a simulated patient which involves and ethical or professionalism issue.

Students will be expected to assimilate information (either written or by asking a brief history). They will then be required to use their knowledge of ethics and professionalism to manage the situation. The simulated patient may present with a mental health problem. The types of scenario include consent and knowledge of medical law but are not limited to these.

This scenario will receive 4 grades.

**Scoring of student performance**

Each student will be scored for each competence or element of the OSCE assessment using a standardised mark sheet together with a global rating as outlined in the section on threshold setting.

The overall examination will be set to yield a total of **28 sets of marks** from an appropriate combination of stations. Descriptors will be produced so that three or four separate sets of marks are awarded for a twenty minute station, two for a ten minute station, and one for a five minute station. The combination of different types of station, but not the precise nature of each, will be published to students before the assessment.

In order to be graded as satisfactory a student must:

- Achieve the overall pass mark
- Must not exceed a minimum number of demerit marks which is likely to be between 8 and 14 and will be decided by the Panel or Board of Examiners.

**Reporting of exam irregularities**

It is anticipated that the OSCE examinations will proceed without incident. However if there are any perceived examination irregularities noted by students, patients, simulated patients or examiners, these should be reported on the day of the examination to a senior member of staff.
THE RESIT EXAMINATION
Written Paper:
Paper 1: 15 Short answer questions
Paper 2: 100 SBA questions

OSCE:
The resit OSCE will have the same format as the main Final Professional Examination. The examination will generate 28 sets of marks. Students who are graded as unsatisfactory for either the FPE resit written or OSCE examination will be graded as Unsatisfactory for the Year.

Reporting of exam irregularities
It is anticipated that the OSCE examinations will proceed without incident. However if there are any perceived examination irregularities noted by students, patients, simulated patients or examiners, these should be reported on the day of the examination to a senior member of staff.
12. Student Selected Component

In Phase 1 of the course the following will apply:

Assessment of Special Study Modules other than the People and Disease (Living with Long Term Conditions) Special Study Module shall be the responsibility of the Unit leader, reporting to the Panel or Board of Examiners. The pattern of assessment may vary from module to module, and may include course work, dissertation, written examinations, practical examinations or *viva voce* examination.

**ASSESSED WORK UNDERTAKEN IN THE STUDENT’S OWN TIME**

This may include assessed essays, problem based papers, preparation of material for posters or presentations or other written work. Students should be given clear, written guidelines as to what is required, including where appropriate a word limit. Explicit deadlines for submission of work should be set. It is the responsibility of the module leader to receive and record the receipt of work. Work submitted after deadlines shall normally be considered to be unsatisfactory. The Phase 1 Coordinator should consider requests for late submission. Work should be returned to students.

**EXAMINATIONS**

Examinations shall be conducted in accordance with the standard University conditions. Unit leaders are responsible for notifying students of the nature, the time and the place of written examinations, for the preparation of examination papers, for the organisation and invigilation of the examination and for the organisation of the marking.

**Grading of Student Selected Component**

Unit leaders should make recommendations to the Board of Examiners, placing each student in one of three categories, Excellent, Satisfactory, or Unsatisfactory.

Students classed as Unsatisfactory in a Special Study Module will be offered the opportunity of one resit, held in the summer following second semester modules (5-year course), and in the Spring following first semester modules (4- and 5-year courses). The performance in that resit shall replace all previous performance by students in that module. A student may not exceed a grade of Borderline after resit. Unit shall report to the Board of Examiners those students who remain unsatisfactory after resit.

Board of Examiners for the Primary Professional Examination will consider the results of all Special Study modules of the third year (5-year course) or the second year (4-year course).

For the 5-year course

- students classed as at least satisfactory in both Special Study modules they have taken will be deemed to have passed the Special Study modules,
- students classed as Excellent in both Special Study modules will be awarded Distinction in the Special Study modules,
- students classed as Excellent in one Special Study module they have taken and Satisfactory in the other will be awarded a Merit in the Special Study modules.
- Students classed as Unsatisfactory in one Special Study module will be capped to a maximum grade of Satisfactory in the resit and they will not be eligible for a Merit or Distinction overall in the Student Selected Components.
For the 4-year course

The Patient Centred Clinical Practice Course is the SSC component of the course.

**In Phase 2 of the course the following will apply to Student Selected Components:**

Each student will complete a number of 3-week student Selected Components (SSC), plus the Elective Period, which is also deemed a Student Selected Component. Each SSC will be assessed by means appropriate to its format, which may vary considerably from one SSC to another. As a minimum, to be deemed satisfactory in any SSC component a student should be assessed on the basis of:

- attendance, which must be satisfactory
- a reflective piece of work, which may be a case report, a reflective essay, or in the case of the Elective period a reflective report or poster
- overall grading of performance by the supervising clinician.

Any student whose attendance is unsatisfactory will automatically be graded as unsatisfactory for the SSC irrespective of performance in the other components of assessment.

**THE ELECTIVE PERIOD**

The Elective Period must be completed satisfactorily for a student to graduate. Any student who remains unsatisfactory in the Elective period at the end of the course will not be allowed to graduate. Their course will be recommended for termination, and they will be referred to the Board of Examiners. Unsatisfactory attendance at the Elective period is irredeemable, but should a student submit an unsatisfactory reflective report or poster they will be allowed one rapid resubmission before the end of the course, which, if satisfactory will allow them to graduate.
13. Assessment of People and Disease (Living with Long Term Conditions)  
Student Selected Component:  
(Five year course only)

Assessment of the People and Disease Special Study Module will be by:

- Submission of an essay at the end of the first year to demonstrate the ability to think and write in a reflective manner. If the essay is graded as satisfactory the student will progress. If the tutor awards an unsatisfactory grade the student will be asked to rewrite the essay and submit it for remarking.

- Presentation of a dissertation. Dissertations will be marked by module tutors, who have not acted as a tutor for the student whose dissertation they are marking. The dissertation will be marked against 10 criteria drawn from the learning outcomes of the student selected component. Students will be categorised as follows on the basis of the mark awarded to their dissertation:
  - Distinction
  - Merit
  - Satisfactory
  - Unsatisfactory

- Students deemed Unsatisfactory will be permitted to submit a further dissertation.

Note: the focus of this SSC is changing in future years and will be entitled “Living With Long Term Conditions”. The assessment criteria will remain unchanged.
14. Assessment of the Patient Centred Clinical Practice Course:  
(Four year course only)

The Patient Centred Clinical Practice course runs only for students on the four-year course. It will be assessed by two summative assessments; one in semester 2 and one in semester 3. The assessments may be in the form of short answer questions, book review or essay. They will be written and marked according to established criteria. Students will be notified of the form of the semester 2 and semester 3 assessments at least two months prior to taking the assessment or submitting assessed work, or at the beginning of the semester, whichever is earlier. Each assessment will be graded as either: unsatisfactory, satisfactory or excellent. At the end of the module students will be awarded a grade of Distinction, Merit, Satisfactory or Unsatisfactory according to the following criteria:

- Excellent in both components: Distinction
- Excellent in one component, satisfactory in the other: Merit
- Two satisfactory grades: Satisfactory
- One or two unsatisfactory grades: Unsatisfactory

A student graded as unsatisfactory will be re-assessed in the weaker element, or in the case of two unsatisfactory grades, by re-submission of the semester 3 assessment. If a student remains unsatisfactory after re-assessment, then their course will be recommended for termination, and they will be considered by the Academic Progress Committee, which may at its discretion, allow an additional re-submission, or a repeat of the second year.
15. 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

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

2. Students will not be allowed to see their examination scripts. This is a University regulation which itself is derived from Schedule 7.9 of the Data Protection Act 1998.

3. The Medical School will arrange for feedback on examination performance to be provided. This requirement will not apply to finals or end-of-programme examinations.

4. Students in Phase I of the course will receive feedback irrespective of whether they have passed or failed an assessment. All students will have the opportunity to discuss this feedback with their Personal Tutor or other member of staff. 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.

5. Students in Phase II of the course who pass the IPE will receive written feedback on their performance in both their written and OSCE components. Students who fail the IPE will be seen by a member of the Medical School Academic Support Unit at which time their strengths and weaknesses will be identified, this also applies to students who fail the FPE.

6. Students who are course terminated after failing a resit examination are not routinely provided with feedback. They can be provided with generic feedback at their request however, but this will only detail the overall elements of the assessment in which they were unsuccessful (written / OSCE / both). Students who are course terminated for other reasons will not be provided with any additional feedback. If a student is permitted to repeat a year after appealing course termination then such a student will receive the same feedback as students who have failed a first sit examination.
16. Merit and Distinction awards

MERIT AND DISTINCTION OF THE CORE CURRICULUM IN PHASE 1

Late in the third year (5-year course) or second year (4-year course) for each cohort of students the Phase I Board of Examiners, including external examiners, will consider the performance of students over all the core components of Phase I and award merits and distinction in the core. Students will be considered for merit or distinction on the basis of the total number of written questions or OSCE stations in which they obtained a satisfactory mark across the core phase 1 End of Semester and End of Phase 1 assessments, as a whole. Performance in qualifying examinations will not count towards merit and distinction, except in those cases where students take the qualifying examination as a first sit because of legitimate absence from end of semester assessments.

The Phase 1 Board of Examiners, with the advice of external examiners decides the threshold score for merit and distinction, and these thresholds may vary from year to year.

MERIT AND DISTINCTION IN THE INTERMEDIATE PROFESSIONAL EXAM

Students will be ranked according to total marks for the written paper and for the OSCE. The Board of Examiners for the IPE examination shall determine thresholds for the award of a merit and distinction in the written paper and the OSCE.

MERIT AND DISTINCTION IN THE FINAL PROFESSIONAL EXAM

Students will be ranked according to total marks for the written paper and for the OSCE. The Board of Examiners for the Final Professional Examination shall determine thresholds for the award of a merit and distinction in the written paper and the OSCE.
17. Award of Honours

The degrees of MB ChB may be awarded with honours at the discretion of the Board of Examiners. Honours are decided on the basis of accumulated merits and distinctions across the whole medical course. A point score is calculated on the basis of:

Eight points awarded for each of

- distinction in the clinical part of the Final Professional Examination
- distinction in the written part of the Final Professional Examination

Four points are awarded for each of:

- merit in the clinical part of the Final Professional Examination
- merit in the written part of the Final Professional Examination
- distinction in the written component of the Intermediate Professional Examination
- distinction in the clinical component of the Intermediate Professional Examination
- distinction in Phase 1 Student Selected Components (five year course)
- distinction in the phase 1 'People & Disease (Living with Long Term Conditions)' SSC (five year course)
- distinction in the phase 1 'Patient Centred Clinical Practice' course (four year course)
- distinction in the Phase 1 core modules

Two points are awarded for each of

- merit in the written component of the Intermediate Professional Examination
- merit in the clinical component of the Intermediate Professional Examination
- merit in Phase 1 Student Selected Components (five year course)
- merit in the phase 1 'People & Disease (Living with Long Term Conditions)' SSC (five year course)
- merit in the phase 1 'Patient Centred Clinical Practice' course (four year course)
- merit in the Phase 1 core modules

The Board of Examiners will set a point threshold above which the degrees of MB ChB will be awarded with honours. This will normally be around 18 points, but may be varied at the discretion of the board. The threshold will be scaled appropriately for students on the four year course who have fewer components across which to collect points.

The calculation for the Award of Honours is under review to reflect changes made to the MBChB curriculum.
18. Attendance

Attendance at all scheduled teaching is compulsory, and will be monitored. Students whose attendance is giving cause for concern will be considered by the Professional Concerns Group. Poor attendance in a semester will normally lead to a grade of unsatisfactory in assessments related to that semester irrespective of performance in those assessments.

In Phase 1 of the course Unit Leaders are responsible for monitoring attendance at taught sessions and may use a variety of methods to achieve this, including asking students to sign attendance forms or to hand in work completed during timetabled time. Failure by a student to ensure that their attendance is recorded is counted as non-attendance. Students must attend and participate in formative assessments. If participation in a session requires prior preparation, such as reading, or preparation of a poster or presentation, failure to attend so prepared may be regarded as non-attendance.

In Phase 2 of the course, students must attend all scheduled learning events, which may include didactic teaching sessions, seminars or presentations, clinical skills teaching and learning in the clinical environment (ward rounds, clinics, lists, any other events determined by the block team). Where the option to sign up to events is offered, the act of signing up makes attendance compulsory. Students who fail to attend scheduled events without good reason will be graded as unsatisfactory for attendance in that block. This will lead to automatic referral to the Professional Concerns Group, and elevation to ‘amber’ concern. Any further unsatisfactory attendance will normally lead to elevation to ‘red’ concern.

The procedures related to requesting time away from the course are outlined in the document “Attendance and Absence Procedures”.

In the case of attendance forms, students must sign their names in full (not provide initials only, which will be regarded as insufficient evidence of attendance). Forging of signatures on attendance forms will be regarded as a disciplinary offence. Students whose signatures are found to have been forged will be deemed to have been absent, and will be reported to the Professional Concerns Group.

Attendance is additionally regarded as an academic obligation. Unauthorised absence is governed by the regulations outlined in the document ‘Regulations regarding Student Misconduct, Academic Misconduct and Neglect of Academic Obligations’.

PHASE 1

In Phase 1 of the course, it is the responsibility of students to self-certify when they are ill though the electronic system provided. Self-certification must be completed within 5 days of return from absence, and will not be accepted later. A copy will be kept on the student file. Repeated, self-certificated absences will be investigated. Normally absences of more than 5 days will require a medical certificate.

PHASE 2

In Phase 2 of the course, students who are ill must inform the administrative lead for the block they are studying. The same requirements with regard to self-certification and medical certificates apply as detailed in Phase 1 of the course, above.
Separate guidance is provided on the maximum period a student can miss and the consequences for missing significant periods on the course.
19. Assessment of Clinical Placements

Clinical Placements are a central component of the medical course. Early on in the course students visit hospital and community settings as part of a placement programme that runs over an extended period. During this time a morning or afternoon a week is allocated to clinical contact. This can be considered a part-time clinical placement.

In Phase 2 of the course students attend a series of full-time clinical placements. However, the principles relating to clinical placements wherever they occur are similar. At the end of each clinical placement a report will be prepared by the placement tutor (or block team) for each student, evaluating performance in each of the categories described below. The reports will be considered formally by the Medical School via the Panel or Board of Examiners, or a sub group of it.

Satisfactory completion of clinical placements is a requirement for progression from one year of the course to the next.

The following elements will be reported for all clinical placements:

**Attendance**

Students must follow the guidance in section 18 of this document and in the “Attendance and Absence Procedures” document.

Clinical placements are considered to be an apprenticeship. All students have an obligation to complete sufficient time on the clinical placement in order to satisfy the apprenticeship obligations. Students who are absent will not be able to fulfil the apprenticeship obligations. These are outlined separately.

**Completion of specified course work**

All clinical placements or blocks have workbooks containing a variety of specified tasks for students to complete, and some have more formal tests. The block team will make a judgement of satisfactory completion of those tasks and tests. This may be by scrutiny of workbooks, possibly with a short viva voce examination, by the inspection of case reports or log books, by written paper or OSCE, or by other means published to the students.

Students who are judged not to have completed appropriate tasks to a satisfactory standard in a block or blocks will be reported, and considered by the Academic Progress Group, the Board of Examiners or a specified sub group of it.

The Board of Examiners may specify elements of work which must be completed satisfactorily before a student may progress either to Phase 2 of the course, in the case of students taking the Primary Professional Examination, the senior rotation, in the case of the junior rotation, or to graduation in the case of the senior rotation. This work, which may include resit of any tests in the blocks, will be in addition to any other requirements to resit formal assessments or complete other tasks such as clinical skills.

Students who do not complete this additional work to a satisfactory standard will be recommended for course termination, irrespective of performance in formal examinations, and their cases considered by the Board of Examiners.
Observed clinical consultations
It is expected that students will be observed consulting with patients during each block, and that the results of such observations will be recorded. Judgements will normally be made according to the criteria of the Leicester Assessment Package (details specified in following sections of this code of practice). Students who are making poor progress in consultation skills will be considered by the Academic Progress Group, who may recommend to the Board of Examiners additional assessment elements to be completed for satisfactory progression.

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 ‘Tomorrow’s Doctors’ (2009), 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 Phase 2 or the junior to senior rotations. Any student who has not completed all parts of the clinical skills training by the end of the senior rotation must do so satisfactorily before 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.

Judgements of professional behaviour
Placement and Block teams will include in end of placement or block reports any instances of unprofessional behaviour by students, including, but not restricted to: poor timekeeping, poor attitude to study, inappropriate behaviour such as rudeness to patients, staff or the public, inappropriate dress or personal hygiene, dishonesty (including especially forging of signatures on attendance registers), use of unfair means in assessments or plagiarism.

All concerns will be considered by the Professional Concerns Group, who may place a student on amber or red concern, which could lead to referral to the Fitness to Practise Committee. Repeated instances of lesser unprofessional behaviour may also lead to referral to the Fitness to Practise Committee.
Responsible Bodies

20. 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 the Regulations governing the Assessment of Students on Taught Programmes of Study and can be found in the General Regulations for Taught Programmes.

The University guidance applies to medical students. There are some additional points that are specific to the M.B., Ch.B. programme. These are provided in the document entitled: “Mitigating Circumstances Guide” and 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.

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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 MBChB 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 applied. 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”.

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21. 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. Some points have been clarified with regard to the M.B.,Ch.B. 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 outlines the working of these respective groups.

BOARD OF EXAMINERS

A Board of Examiners shall be convened for the MBChB 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:

- Chair of the Board of Examiners. This will normally be the Head of Department. 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 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. 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 modules, 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, 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.

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 semesters, confirming the standards of achievement in the semester, and that marking standards are sufficiently reliable to ensure that outcomes appropriately reflect student achievement against the written criteria;
- recommend semester outcomes to one or more Board of Examiners;
- agree the release of provisional semester outcomes to students.
- consider patterns of student achievement for individual clinical rotations (i.e. junior rotation or senior rotation) via the Intermediate Professional Examination and the Final Professional Examination, confirming the standards of achievement in the rotation, and that marking standards are sufficiently reliable to ensure that outcomes appropriately reflect student achievement against the written criteria;
- recommend rotation and assessment outcomes to one or more Board of Examiners;
- agree the release of provisional rotation and assessment 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, including unit leads or clinical block leads, 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 drawn from the SITS record. The data will 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.

Scaling, or norm referencing, of assessment outcomes may take place only in exceptional circumstances or where this has previously been agreed by a Programme Approval Panel for the purposes of professional accreditation. Scaling should not be used, for example to adjust for variations in student achievement across semesters or academic years. Any scaling shall be justified to the Panel of the Examiners and subsequently to the Board of Examiners.
Once component marks have been confirmed by a Panel of Examiners they may not be adjusted for individual students.

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.
22. Phase 1 and Phase 2 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 Assessment Lead (Chair)

One module leader from each of semesters 1 to 3 of the four and five year curricula

One module leader from each of semesters 4 and 5 of the five year curriculum

At least one medically qualified member of staff

The Phase 2 Assessment Lead

The Assessment Manager

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 four and five year curricula, 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 qualifying 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 spreadsheets for standard setting
6. Conduct of appropriate standard setting procedures for end of semester assessments (ESAs), Phase 1 assessments and re-sit examinations to make recommendations to the Board of Examiners
7. Oversight of clinical assessments including OSCE’s
8. Oversight of the assessment of student selected components in Phase 1 to ensure that:
   - The model(s) of assessment chosen for each is appropriate to the module aims and learning outcomes
   - The demands made upon students are comparable across student selected components
Semester Assessment Groups

The end of semester assessments for each of semesters 1-4 of the five year course, and 1-2 of the four year course, 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:

- All module leaders of modules in that semester for both four and five year courses
- One other member of the Semester Assessment Group, preferably a module leader from an earlier semester
- In the case of Semester 2, the individual responsible for the Objective Structured Clinical Examination
- The Assessment Administrator

The Semester Assessment Group will be responsible for:

1. The preparation of appropriate written end of semester assessments, ensuring
   - Appropriate proportions of questions are drawn from modules in that semester, crossing modules in that semester and covering material from previous semesters – following guidelines determined by the Phase 1 Assessment Group
   - Appropriate blueprinting of the assessment to detailed curriculum outcomes across the whole course to date
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 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
   - Organisation of marking groups and marking of scripts
4. Working with the Phase 1 Assessment Group to set and apply appropriate standards
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
7. All semester Assessment Group members will contribute to the Phase 1 Assessment and qualifying examinations
PHASE 2 ASSESSMENT GROUP

The group, chaired by the Phase 2 Assessment Lead is responsible for the coordination of all aspects of assessment in Phase 2, and the management of assessment of the core curriculum.

Membership
The Assessment Lead (chair)
The Director of Undergraduate Medical Education
One representative from each core clinical block in Phase 2
The clinical examinations coordinator, Leicester Medical School
Two representatives of longitudinal themes
The Phase 1 Assessment Lead
The Assessment Manager

The group is responsible for:

Coordination of all core assessments in Phase 2

1. Oversight of assessments within clinical blocks, including
   - Approval of the pattern of assessments within each block to ensure
     - Assessment methods are appropriate for the outcomes to be tested
     - The assessment load is comparable across blocks

2. Written assessments at the Intermediate and Final Professional Examinations, including
   - Maintenance of question banks:
   - Construction of appropriate papers including:
     - Blue printing to curriculum outcomes
     - Appropriate balance of question difficulty and diversity
   - Oversight of administration of the assessments 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
   - Administration of marking including:
     - Identification of staff requirements for marking teams and recruitment of suitable staff from the medical school and NHS
     - Oversight of data entry and processing, and production of spreadsheets for standard setting
   - Conduct of appropriate standard setting procedures

3. Clinical assessments at the Intermediate and Final Professional Examinations, including
   - Ensuring that:
     - Appropriate facilities are available for clinical examinations
     - Sufficient, appropriately trained examiners are available for each clinical examination
     - Examiners are briefed in a consistent way for each examination session at every site

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- An appropriate mix of patients, including where appropriate simulated patients are available for all examinations
- Examinations are conducted in accordance with the code of practice for assessment in phase 2

- Collation and analysis of marks to:
  - Prepare lists of failing students, and where appropriate those awarded merit and distinctions to be considered by the Phase 2 Board of examiners

- Standard setting by appropriate methods:
  - Quality control of clinical assessments, including:
    - On-going monitoring of the conduct of assessments, and identification of strategies to improve assessment practice
    - Monitoring of appropriate psychometric analyses of assessment outcome

4. Oversight of the assessment of student selected components in Phase 2, including the elective period to ensure that:
   - The model(s) of assessment chosen for each is appropriate to the aims and learning outcomes
   - The demands made upon students are comparable across student selected components
23. Professionalism Concerns Group

This group is responsible for the on-going monitoring of the professional conduct and performance of students who are giving cause for concern. It receives reports from the Board and Panel of examiners and its sub groups, unit leads or any other individual or group having concerns about the professionalism or conduct of a student. It meets regularly, and maintains a register of students at risk, placing them into one of three categories:

**Red:** This student is giving serious cause for concern, needs intense monitoring and support, and may be referred into formal systems such as the Professionalism Support Group or the Fitness to Practise Committee.

**Amber:** This student is giving moderate cause for concern, either because of poor attendance, conduct or professionalism, or because they are in the process of resolving difficulties which led to a red categorisation previously. They remain subject to close monitoring and targeted support.

**Green:** This student has been either in the red or amber category, and has acted to reduce concern, leaving them under continuing lighter touch monitoring.

Students who have raised no cause for concern are not recorded on the register, but their progress is considered in the normal way by the Board of Examiners.

The group has defined and continues to refine case-law for the placement of students into categories and movement between them, but each case is of necessity considered individually.

Guidance on the operation of the concerns process is provided to students at the beginning of the course. The group refers students to support mechanisms as appropriate, and on to formal systems such as the Fitness to Practise Committee as appropriate.

Membership
Director of Undergraduate Medical Education (Chair)
Lay Member
Phase 2 coordinator
Phase 1 coordinator
One other Phase 1 unit
One other Clinical Education Lead
Administrator
24. Academic Progress Group

In addition to the summative assessments the Medical School receives reports on the progress of students through a range of elements of the MBChB programme. This includes, but not exclusively, the early clinical placements, the procedural skills programme, all the Phase 2 clinical blocks and the elective period. This information is collated with the reports from the summative assessments.

This information is monitored for the following reasons:

- To help identify those students who excel on the course
- To identify, as early as possible, those students who are struggling and to ensure that appropriate remediation is in place. Such students will be referred to the Academic Remediation Group
- To identify those students, who despite appropriate remediation, continue to struggle and perform poorly in assessments.

It is hoped and intended that early remediation will allow students to take responsibility for their own learning and to improve to meet the standards required to progress. It is acknowledged that students who struggle often have a range of other issues, which might include health, financial or welfare. All such students will be encouraged to engage with the full set of support services available.

A small number of students will have repeated concerns raised regarding their academic progress, and who, despite the provision of appropriate support, continue to perform poorly. Such students will be informed of this concern. The Academic Progress Group will produce a report for the Board of Examiners in such cases.

The membership of the Academic Progress Group is intentionally small as it largely a monitoring process. A sub-group will meet for each of Phase 1 and Phase 2.

Membership
Director of Undergraduate Medical Education
Phase 1 Coordinator
Phase 2 Coordinator
Phase 1 Unit lead
Phase 2 Clinical Education Lead
Administrator
25. 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 department of Medical & Social Care Education 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 MBChB.

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 Faculty 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 either Faculty should not be invited to become external examiners before a lapse of not less than five years after the association has ceased.

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:

- 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 Year examinations and 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 shall inspect a sample of scripts from the end of year and resit 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.
   • A sample of scripts from candidates in each student selected component may be scrutinised by an appropriate external examiner.
   • External examiners may at their discretion scrutinise a sample of student dissertations produced in the People and Disease Special Study Module.

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 is normally present, or available for telephone consultation at meetings which make progression 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 of Medical & Social Care Education 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 at the end of each academic year.
   • The reporting system will follow that outlined in the Assessment Regulations Handbook and the External Examiner Handbook
26. 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.
27. Absence from an examination

All summative assessments are compulsory.

If a student is absent from an examination they will be deemed to be unsatisfactory for that assessment.

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 Panel or 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’. 
28. Prizes

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

Phase 1 Prizes

- College Prize
- Sir Robert Kilpatrick Prize
- BMA Prize
- Tresidder Prize
- Ballantine Prize
- Pfizer Prize
- Roche-Syntex Prize
- Carl Zeiss Prize
- Just Fairtrade Prize
- Amir Gulamhusein Prize
- Noel Everson Surgical Prize

Phase 2 Prizes

- Philip Hammersley Gold Medal
- BMA Prize for Clinical Excellence
- Charles Lawson Prize for best performance in the Final Professional Examination
- Smith, Kline and French Prize
- Arthur Watts Prize in Clinical Methods
- James Overton Dermatology Prize
- The Reverend Derek Holes Prize in Cardiovascular Medicine
- John MacVicar Prize and Medal
- Medical Women’s Federation (East Midlands) Prize
- Keeler Prize
- Sydney Brandon Prize
- John and Hilary Hearnshaw Diabetes Prize
- Frank Harris Prize
- Nephrology Prize
- Respiratory Medicine Prize
- Peter Bell Surgical Prize
- Elective Prize (x 3)

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

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.

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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 a 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 an 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. Appropriate 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**

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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.