SCHOOL OF MEDICINE ASSESSMENT POLICY FOR MEDICAL STUDENTS

MBChB (ScotGEM) PROGRAMME

INTRODUCTION

1. The School of Medicine, the University of St Andrews awards the Bachelor of Medicine, Bachelor of Surgery (MBChB) degree, in partnership with the University of Dundee. The assessment methods for the ScotGEM programme meet the needs of a vocational degree and requirements of the General Medical Council (GMC), to determine acceptable levels of competence expected in a medical professional. These being knowledge, clinical skills, together with professional attitudes and behaviours.

2. The assessment strategies are reviewed regularly to ensure compliance with best practice in the field of medical education. Every effort is made to match assessment methods with those at our partner clinical school and to best prepare students for progressing through their medical education. Assessments are designed to test: depth, breadth, and application of knowledge; clinical and communication skills.

3. The course has a modular design with a single module delivered per academic year, with four in total over the course of the programme: MD2101, MD3101 (University of St Andrews) and MS30301, MS40301 (University of Dundee). This policy refers only to assessment structure and reporting at the University of St Andrews, however grades from all four modules are used to determine the final degree classification. The results of assessment for each module are reported using the University's common 20-point grade scale. The minimum grade the University requires to pass any module is a grade of 7.

KEY FEATURES OF THE ASSESSMENT STRATEGY

4. Assessments closely match and test the course objectives and intended learning outcomes.

5. Whenever possible, objective assessment methodologies are used to test learning outcomes.

6. Assessments sample the breadth and depth of knowledge, and are not intended to test every learning outcome of a module.

7. Summative assessments are designed to meet expected standards of validity and reliability. This ensures that the sampling of knowledge and skills in assessments is appropriate and defensible. Performance in an assessment will therefore be an accurate reflection of a student's wider knowledge and skills base.

   The default position of the University is effectively no generative AI (genAI) permitted for the preparation and presentation of any assessed work unless authorized explicitly by the module coordinator/coursework setter. Unauthorised use of genAI will be considered academic misconduct. Please refer to assessment instructions on Solas for guidance on the acceptable use of gen AI. For further information, refer to the University's guidance on genAI and good academic practice https://www.st-andrews.ac.uk/policy/academic-policies-assessment-examination-and-award- good-academic-practice/generative-ai-faqs-students-guidance.pdf

8. Summative assessments are blueprinted to ensure that assessment content proportionately represent the curriculum content of each module.

9. All summative assessments are standard set to ensure appropriate and fair pass marks are applied.

10. Students are informed of all assessment procedures at the beginning of each phase of the course.

11. Opportunities for formative assessment and remediation are provided in all years of the programme.

GENERAL ASSESSMENT OUTLINE

12. Assessment in ScotGEM is divided into three domains: Knowledge, Skills and Professionalism. These are assessed in all years of the programme. The domains in Years 1 and 2 are weighted as follows: Knowledge domain 40%; Skills domain 40%; Professionalism domain 20%. Each must be passed for students to progress to the following year.

    The following pattern of formative and summative assessments within the degree programme are common to MD2101 and MD3101 modules delivered by the University of St Andrews:

13. **Formative Assessment**. The results of formative assessments do not count towards the module grade. Formative assessment exercises are designed to encourage students to consolidate their learning and provide practice in the assessment methods used in the summative examinations. These tasks help students to monitor their own progress and their ability to apply knowledge. Formative assessments can also provide students with early warning of any areas of weakness.

14. **Summative Assessment**. Module grades are derived from the results of summative assessments. Summative assessments are based around learning outcomes that are associated with the timetabled elements of the module (including guided study and practical components). Summative assessments test the breadth and depth of knowledge acquired. They may also examine the application of knowledge to novel problems.

    a. **Summative assessment methods for Year 1**:

        Knowledge Domain:

        (1) Single Best Answer Questions (SBAs)

        (2) Short Written Answer Questions (SWAs)

        (3) Integrated Anatomy Practical Papers (IAPPs)

        Skills Domain:

        (4) Objective Structured Clinical Examinations (OSCEs)

        Professionalism Domain:

        (5) Agents of Change Coursework (Written submissions)

        (6) Portfolio Tasks (Submission of Core Evidence)

b. **Summative assessment methods for Year 2**:

    (1) All methods as for Year 1, minus SWAs and the IAPP

c. **Mid and End of Year Assessments**:

Year 1:
Mid-year assessment (MYA). This contributes 42% of the final Knowledge domain mark. The MYA is composed of 50 single best answer questions (SBAs) and 5 short written answer questions (SWAs). There are a total of 100 marks for the SBA and SWA paper. There is also a 16 mark integrated anatomy practical paper (IAPP). Questions are not negatively marked.

End-of-year assessment (EYA). This contributes 58% of the final Knowledge domain mark. The EYA is composed of two separate written papers: The first paper contains 75 SBA and 5 SWA questions totaling 125 marks. The second paper is a 34 mark IAPP. Anatomy knowledge may be assessed using cadaveric material, models or images in a standalone practical examination during the EYA examination diet. The final Knowledge domain mark will be derived from the EYA and MYA assessments and will be determined from a total of 275 marks. Compensation is allowed between components of the Knowledge domain.

Year 2:
Mid-year assessment (MYA). This contributes 50% of the final Knowledge domain mark. The MYA is composed of 100 SBA questions, with a total of 100 marks for the MYA paper.

End-of-year assessment (EYA). This contributes 50% of the final Knowledge domain mark. The EYA is composed of 100 SBA questions, with a total of 100 marks for the EYA paper. The final Knowledge domain mark will be derived from the EYA and MYA assessments and will be determined from a total of 200 marks. Compensation is allowed between components of the Knowledge domain.

15. **Skills Domain Assessment:** Clinical and communication skills are assessed by Objective Structured Clinical Examinations (OSCEs).

a. **MD2101:** The OSCE consists of a number of separate stations (normally 12), each of 8 minutes duration (7 minutes patient facing with 1 minute reading time).

b. **MD3101:** There are two separate OSCE events during Year 2. A 4-station OSCE event is held in the MYA diet (December) and an 8-station OSCE consisting of a single event for the EYA (June). Each station is 8 minutes duration (7 minutes patient facing with 1 minute reading time).

16. **Professionalism Domain Assessment:** Assessment of this domain is composed of written assignments related to Agents of Change course work, contributing to 100% of the domain grade. In addition, there are core portfolio tasks, with deadlines throughout the course of the year, which must be satisfactorily completed in order to pass the Professionalism domain. Example portfolio tasks include: reflective pieces of work, examples of clinical and procedural skills, and feedback from the GCMs.

PREPARING THE ASSESSMENTS

17. Blueprinting. Assessment questions are selected to proportionately reflect the curriculum content of each module.

18. Approval of the assessments. Relevant teaching staff and external examiners review the questions to ensure appropriate balance within the paper.

STANDARD SETTING AND PASS MARKS

19. Different assessments may have a different level of difficulty, so the traditional approach of applying an arbitrary pass-mark for each assessment (e.g. 50%) is neither fair, nor appropriate, for this programme. In order to determine the pass-fail boundary, a standard setting procedure is applied to each individual component of every assessment, to calculate an appropriate cut-point or pass mark. This process ensures the consistency of results between different modules and across forms of assessment, as well as ensuring year-on-year equivalence. The standard setting procedure for each module is explained in detail to students to ensure transparency, fairness and accountability. Standard setting focuses attention on the concept of a borderline student. The borderline student is one who shows the minimum acceptable level of competency to pass the relevant assessment.

20. All the questions used in summative assessments (i.e. SBAs, SWAs and OSCEs) are stored in the School Exam Question Banks. These banks are extensive and consist of peer-reviewed and approved assessment items. Statistical data on past performance of these exam bank items provides data to aid the standard setting process.

21. **Standard setting.** When standard setting, the programme uses absolute (criterion-referenced) standards to set the minimal level of attainment required to pass an assessment. The Assessment Committee sets the level of performance required of students prior to written exams being taken. It is important to note that we do not use a formula (norm-referencing) to determine if a fixed number of students should pass or fail, therefore all students can pass if they achieve the pre-determined standard.

22. **Angoff method.** When standard setting questions which have not been used before, the Angoff method is then applied. The Angoff method is an absolute method based on judgments about test question difficulty. It is based on expert judgments on how well a borderline student would perform in each new question and is carried out prior to the exam being sat. Standard setting is performed by a representative cohort of staff who teach across the topics being assessed, and those who have an overall view of the module content. These judges consider each new question in every paper and decide a minimum acceptable score for each question. Judges predict what percentage of borderline students are likely to answer a SBA question correctly, or what mark a borderline student would obtain in a SWA question.

23. **Pass marks.** Since every exam is unique, the percentage required to pass that exam is also unique and must be calculated each time. The pass mark is the minimum level of performance required to obtain the University credits for each module.

24. **Module results.** The module results are mapped onto the University 20-point scale (see below) by examining the performance of the cohort as a whole compared to the pass mark. A unique look up table is created for every exam to relate % score to a grade. Grade 7 is the minimum pass grade, and Grade 6 and below indicate a fail. Obtaining a fail grade requires a student to re-sit that module. All modules on the ScotGEM programme will be reported to a full round number on the University 20-point scale.

CLINICAL EXAMINATIONS (OSCE)

25. **The Borderline Regression Method**. An OSCE examiner will score each student using a domain-based checklist as they observe performance during each station. After the student has finished, the examiner also assigns a global rating using the terms excellent, clear pass, borderline pass, borderline fail and clear fail. Scores from the checklist are statistically analysed against the global rating by the borderline regression method for each station in order to determine the station cut-point.

26. **Pass/fail boundaries for OSCE**. Pass fail boundaries at OSCE stations are determined by a borderline regression method (see above). A pass mark is then determined for the entire exam by averaging the cut-points for each station. Students must pass at least 50% of stations AND achieve the overall pass mark in order to pass the assessment.

REPORTING

27. **Module Exam Board Meeting**. Before the results are reported to the University, a cohort of internal and external examiners review the exam data and the cut-points suggested by the standard setting and post-test moderation process. The final module grades reported are agreed by the External Examiners, Module Controllers, Assessment Officers, Director of Teaching and programme Course Director.

28. **Key reporting codes**. Following completion of a module, a mapping scale is used to convert the module mark to the University-approved grade point reporting scale. The University uses a non-linear 20-point grade scale to report the results of all modules. These grades appear on the official academic transcript. This ensures uniformity of practice across the University. The key reporting codes are:

7.0 to 20.0	Pass
0 to 6.9	Fail with opportunity for reassessment
0D	Deferred Assessment
0X	Denotes a failure to complete module requirements: This grade should be applied where a student has failed to complete the work of a module without good reason, and should be applied where a student does not register for, or does not attend, any examination without good reason. The student is not entitled to a re-assessment opportunity for this module.

29. **20-Point Grade Scale**. Module grades provide an indication of performance based on expected standards. A basic pass, for instance, is recorded as a Grade 7; an outstanding performance would receive a Grade 17 or above. The table below indicates the standards achieved with grades:

Grades	Result	It is the view of the examiners that:
0 1 2 3 4 5 6	Fail	The performance is unsatisfactory and there are deficiencies in the knowledge and understanding of the core curriculum. The student would not be able to cope with further study of this and related modules due to these deficiencies.
7 8 9 10	Pass	The performance is satisfactory and demonstrates an adequate knowledge and understanding of the curriculum content.
11 12 13 14 15 16	Pass	The performance is of a good standard and shows merit. There is evidence of a much broader knowledge and understanding of the core curriculum. The student would be well prepared for further study of this and related modules.
17 18 19 20	Pass	There is evidence of a comprehensive knowledge and understanding of the core curriculum and of integration of a complex range of relevant material. The student would be very well prepared for further study of this and related modules.

30. **Degree classification.** The ScotGEM degree classification algorithm uses as the primary determinant of degree classification, the weighted mean (and weighted medium) of all grades awarded during all years of the ScotGEM degree programme. The ScotGEM MBChB can be awarded with the following classifications: with Merit or with Distinction. ScotGEM programme regulations: https://medhandbook.st-andrews.ac.uk/wp-content/uploads/sites/27/2024/08/UG-teaching_ScotGEM_programme-regulations.pdf.

REASSESSMENT AND SPECIAL CIRCUMSTANCES

31. **Special exam arrangements**. All students requiring special exam arrangements because of a disability or long-term medical condition must register with Student Services. For arrangements to be in place for the MYA students must register with Student Services by week 7.

32. **Fit to Sit.** This school operates a 'fit to sit' policy. By taking any assessment the student is declaring themselves fit to complete the assessment. If students do not consider themselves fit to take an assessment on the day they should request a deferred assessment.

33. **Deferred assessments**. In the event that students are absent from any summative assessment, a deferred sitting may be requested. Students must apply to the School for a deferred assessment this can be done by emailing Medical Director of Teaching medicaldot@st-andrews.ac.uk, explaining the circumstances and including relevant evidence. The request will be considered, anonymously by the School Progress committee. If the committee approves the request then an exam will be held in accordance with University regulations for deferred assessments. For more information on absence from exams/deferred exams, please refer to: https://medhandbook.st-andrews.ac.uk/wp-content/uploads/sites/27/2024/08/UG-teaching_assessment_missed-and-deferred-exams-policy.pdf

34. **Failure to attend**. Students who are expected to take an assessment (or reassessment) but who do not attend the exam must inform the School of Medicine, Support Team (medsupport@st-andrews.ac.uk) and the School Assessment Team (medass@st-andrews.ac.uk). Failure to do so, or failure to request a deferred assessment, may result in the module being awarded a 0X reporting code.

35. **Failing exams and resits**. Students who fail a domain (e.g. Knowledge) will have to resit all assessment elements of that domain (e.g. SBA, SWA & IAPP) at the next opportunity. Resits take place in July and also represent the only deferral opportunity for the June exams. Students who sit and fail their July exams as their first attempt will receive a second attempt at the next opportunity, which will usually be at the end of the next academic year. Students must pass all domains in one academic year in order to progress on to the next.

Domain resit pass grades are capped at 7 irrespective of performance in the reassessment. For example, if a student has passed the OSCE (Skills domain) but is required to resit the Knowledge domain written papers, then there is no requirement to resit the OSCE. Similarly, if a student fails the OSCE but obtains a pass for the Knowledge domain, then only a resit OSCE is required. Marks obtained from domains passed at first attempt will be uncapped and all domain marks (capped and uncapped) will be used to calculate the grade for the year.

36. **Special Consideration**. A module grade may be reported with special consideration where most or the whole of the student's work for the module has been affected by personal circumstances; where there is clear written evidence of these; and where it has not been possible to compensate by means of deferred and/or alternative assessment. For more information on special consideration please refer to ScotGEM programme regulations: https://medhandbook.st-andrews.ac.uk/wp-content/uploads/sites/27/2024/08/UG-teaching_ScotGEM_programme-regulations.pdf

FEEDBACK POST-SUMMATIVE ASSESSMENTS

37. **Class Performance**. The class will receive feedback on the exam performance as a whole.

38. **Individual performance.** A breakdown of results with supporting performance feedback will be available on the student record section of Solas.

39. **Personal Tutor.** Students will have the opportunity of meeting with their personal tutor following MYA and EYA exam diets to discuss their examination performance. Tutors will have access to generic class feedback and individual student records on Solas and be able to assist the student in conducting a self-appraisal of their performance. The tutor will ensure you understand the assessment system, review your study technique and may direct you to seek further support if indicated.

40. **Automatic progression.** You must pass all domains (Knowledge, Skills and Professionalism) at first attempt and demonstrate appropriate skills and attitudes before you can automatically progress to the subsequent year.

Author:	Executive Administrator (DCM)	**Approval Committee:**	
Consultees:			
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Version Control Record *(expand table as required)*

Date	Revision Description	Major Changes