



**COLLEGE OF LIFE SCIENCES AND MEDICINE**

**SCHOOL OF MEDICINE, MEDICAL SCIENCES AND NUTRITION**

**HEALTHCARE PROGRAMMES**

## **ASSESSMENT HANDBOOK**

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## 1.0 Introduction

Students in the Institute of Education for Medical and Dental Sciences (IEMDS) will undertake assessments in line with University of Aberdeen regulations and the outcomes set by the relevant regulatory body / curriculum guidance for each discipline.

**1.1 The General Medical Council (GMC)** sets the knowledge, skills and behaviours that medical students learn at UK medical schools: these are the outcomes that new UK graduates must be able to demonstrate. The GMC also sets standards for teaching, learning and assessment. These outcomes and standards are laid down in **Promoting excellence: standards for medical education and training (2015)** and in **Outcomes for Graduates (2018)**:

<https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/promoting-excellence>

[https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018\\_pdf-75040796.pdf](https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018_pdf-75040796.pdf)

The GMC has also published **supplementary advice** for medical schools:

Assessment in Undergraduate Medical Education:

[https://www.gmc-uk.org/-/media/documents/assessment-in-undergraduate-medical-education---guidance-0815\\_pdf-56439668.pdf](https://www.gmc-uk.org/-/media/documents/assessment-in-undergraduate-medical-education---guidance-0815_pdf-56439668.pdf)

This advice was originally produced to supplement **Tomorrow's Doctors (2009)** but remains helpful to medical school and students.

The advice includes the following major components:

- (a) Medical schools should take an overarching strategic and systematic approach to assessment that fits with the rest of the curriculum.
- (b) In developing and reviewing assessment methods, medical schools should consider validity, reliability/generalisability, feasibility, fairness, educational impact, cost-effectiveness, acceptability and defensibility.
- (c) Compensation can be appropriate but should not be used in ways that would allow students to graduate who are unable to demonstrate all the high-level outcomes and the practical procedures.
- (d) Absence, illness or other extenuating circumstance is not a reason for allowing students to graduate without demonstrating achievement of the outcomes.
- (e) A cross-departmental board should have overall and final responsibility for assessment and be transparent: that is, accountable through published processes and criteria.
- (f) Medical schools should provide clear, accessible and timely information to students and staff.
- (g) Medical schools legitimately choose various methods of standard setting, but all should fully implement a robust, transparent and consistent approach that satisfies the requirements in *Tomorrow's Doctors* (2009).
- (h) Relevant, timely and useful feedback will be effective in improving learning and performance.

**1.2 The General Dental Council (GDC) publication Standards for Education (2015)** sets out the standards and requirements that underpin these which apply to all UK programmes leading to registration with the GDC:

[https://www.gdc-uk.org/docs/default-source/quality-assurance/standards-for-education-\(revised-2015\).pdf?sfvrsn=1f1a3f8a\\_2](https://www.gdc-uk.org/docs/default-source/quality-assurance/standards-for-education-(revised-2015).pdf?sfvrsn=1f1a3f8a_2)

The requirements relating to assessment are laid out under Standard 3 Student assessment (pages 6-7).

- To award the qualification, providers must be assured that students have demonstrated attainment across the full range of learning outcomes, and that they are fit to practise at the level of a safe beginner. Evidence must be provided that demonstrates this assurance, which should be supported by a coherent approach to the principles of assessment referred to in these standards.
- The provider must have in place effective management systems to plan, monitor and centrally record the assessment of students, including the monitoring of clinical and/or technical experience, throughout the programme against each of the learning outcomes.
- Students must have exposure to an appropriate breadth of patients and procedures and should undertake each activity relating to patient care on sufficient occasions to enable them to develop the skills and the level of competency to achieve the relevant learning outcomes.
- Providers must demonstrate that assessments are fit for purpose and deliver results which are valid and reliable. The methods of assessment used must be appropriate to the learning outcomes, in line with

current and best practice and be routinely monitored, quality assured and developed.

- Assessment must utilise feedback collected from a variety of sources, which should include other members of the dental team, peers, patients and/or customers.
- The provider must support students to improve their performance by providing regular feedback and by encouraging students to reflect on their practice.
- Examiners/assessors must have appropriate skills, experience and training to undertake the task of assessment, including appropriate general or specialist registration with a UK regulatory body. Examiners/assessors should have received training in equality and diversity relevant for their role.
- Providers must ask external examiners to report on the extent to which assessment processes are rigorous, set at the correct standard, ensure equity of treatment for students and have been fairly conducted. The responsibilities of the external examiners must be clearly documented.
- Assessment must be fair and undertaken against clear criteria. The standard expected of students in each area to be assessed must be clear and students and staff involved in assessment must be aware of this standard. An appropriate standard setting process must be employed for summative assessments.

### **1.3 Faculty of Physician Associates (FPA) at the Royal College of Physicians**

The FPA reviews and sets standards for the education and training of physician associates, accreditation of university programmes and physician associate national certification and recertification examinations.

<http://www.fparcp.co.uk/>

In order to qualify from a UK university with a PGDip or Masters qualification in Physician Associate studies, students must pass this national assessment.

Recertification assessment must be undertaken at 6-yearly intervals in order for revalidate.

### **1.4 Advanced Clinical Practitioners competencies**

Presently there is no overarching body that sets the knowledge, skills and behaviours of advanced clinical practitioners. The Chief Nursing Officer for Scotland, along with a working party, set up the required knowledge, skills and competencies for Advanced Practice (see

[https://www.nes.scot.nhs.uk/media/4031450/cno\\_paper\\_2\\_transforming\\_nmahp\\_roles.pdf](https://www.nes.scot.nhs.uk/media/4031450/cno_paper_2_transforming_nmahp_roles.pdf).)

### **1.5 The University of Aberdeen Academic Quality Handbook: Assessment**

**Policies and Guidelines** summarises the University's assessment and examination policies and practices and provides information on graduation and transcripts.

<https://www.abdn.ac.uk/staffnet/teaching/assessment-policies-and-guidance-6099.php>

The following webpage provides information on External Examining.

<https://www.abdn.ac.uk/staffnet/teaching/external-examiners-6107.php>



## **2. Assessment within the SMMSN**

The SMMSN aims to deliver a systematic approach to assessment and feedback by the use of best evidence methods that are valid, reliable, generalisable, embedded within the curricula and consistent across all years and programmes of study. The assessment process aims to reflect current good practice and encompasses the following key areas: blueprinting, item writing, standard setting, post exam analysis, examiner training and feedback, exam governance, and communicating with students.

**2.1 The SMMSN Feedback and Assessment Committee (FAC)** is responsible for overseeing these processes and meets three times per year. Its remit is to provide strategic direction for assessment policy and quality assurance of all assessments within the SMMSN. The group has representation from the leads from each programme in the Institute. Students are represented by the Area of Studies Convenors. (See Appendix 1). It is co-chaired by the IEMDS Assessment Lead and Medical Sciences Assessment coordinator, reporting to the Director of Institute.

The subgroups reporting to the Executive are:

1. Written and Anatomy Assessment Group
2. Practical Assessment Group
3. Dental Assessment Committee
4. iPad Assessment Group
5. PA Assessment Group
6. Medical Sciences Assessment Group
7. Postgraduate taught Assessment Group

The subgroups aim to review and amend assessment processes periodically to ensure that they reflect: the developing curriculum, disability provision and special circumstances, equality and diversity and changing professional practice.

Members are encouraged to discuss potential new developments with the group and provide feedback on pilot studies. New developments should be bench marked against the domains recommended by regulatory bodies and the wider institution (including validity, reliability, generalisability, feasibility, fairness, educational impact, cost-effectiveness, acceptability and defensibility).

Students should be informed of the assessment quality assurance processes and informed in advance of any new developments.

## **2.2 Standard operating procedures**

Standard operating procedures and guidance documents which summarise key principles have been produced for key steps in the summative assessment process. Once approved, these documents are disseminated and implemented. Changes to these documents will be made by the FAC at 2 years following development or earlier if feedback necessitates.

## **2.3 Examiner training, question writing, examining and feedback**

An SMMSN website “Assessment Central” has been developed for the healthcare programmes. This holds all assessment contacts, with the Assessment Committee structures, SOPs, an introduction to the different types

of assessment instruments used and question writing information.

<https://www.abdn.ac.uk/medical/assessmentcentral/>

An OSCE examiner training website

<http://www.abdn.ac.uk/medical/osceexaminer/>

has been developed and all new OSCE examiners are asked to undergo mandatory training prior to examining. Experienced examiners must also refresh their knowledge and skills every three years, plus equality and diversity training every two years. Guidance is given to examiners prior to the exam to orientate them to where the exam sits within each course and the expectations of student ability. Certification of training is provided and automatically logged. Certification must be repeated every three years.

After the MBChB OSCE every examiner is sent documentation with feedback on the marks they awarded to students at their station along with how many students they failed. This is in chart form (box plots) to allow examiners to compare their performance with other examiners for the same station. Exam or year coordinators will meet with any examiners who are found to be significant outliers to ensure that they are aware they are outliers and can undertake additional training to improve calibration. Exceptionally, a “hawk” examiner may necessitate small adjustments to be made to the passmark of an individual station.

#### **2.4 Criteria for awarding year distinctions**

Distinctions will be awarded to students who maintain a high standard of performance across all courses in each year. A grade point average will be calculated for each student using all the courses in the year weighted by the

number of credits for each course. This will be used to determine eligibility for year distinctions. Those averaging 18.0 and above should be awarded a distinction. In addition, those scoring between 17.1 and 17.9 are regarded as borderline, and can be awarded a distinction if agreed by the examiners' meeting in the following circumstances:

- Grade profile – if the median grade is in the distinction category
- If rounding has been used, and the unrounded grade point average is in the distinction category
- In exceptional circumstances.

## **2.5 External examiners**

The Assessment office records and reviews the names and institutions of all external examiners. These are provided to the students. All external examiners are expected to follow the principles outlined in the Higher Education Academy handbook for external examining

([https://www.heacademy.ac.uk/sites/default/files/downloads/HE\\_Academy\\_External\\_Examiners\\_Handbook\\_2012.pdf](https://www.heacademy.ac.uk/sites/default/files/downloads/HE_Academy_External_Examiners_Handbook_2012.pdf) ).

The external examiners will be provided with the relevant exam blue-printing and questions well in advance and given an opportunity to comment. At each examiners' meeting there will be a discussion of the previous year's external examiner report(s) and resultant action taken.

An external examiners handbook for medicine has been produced and can be accessed through assessment central

(<https://www.abdn.ac.uk/medical/assessmentcentral/>).

## 2.6 Communicating with students

Transparency is fundamental in student assessment as well as excellent communication. A document detailing exam processes '**A students' guide to assessment processes within the Institute of Education for Medical and Dental Sciences, University of Aberdeen**' is available on the Institutional virtual learning environments for each course. Students are informed well in advance of the dates, timing, and format of their exams. Students are provided with individualised feedback on their exam performance after every sitting. Students are also informed before summative assessments that they should not sit the assessment unless they are "fit to sit" the examination. (See **Students' guide to the exceptional circumstances committee, [Assessment Central](#)**).

### **3. Degree Assessments**

In general, the University seeks to follow a mixed method of assessment, as appropriate and relevant to the nature of individual courses. The assessments which contribute a specified percentage of the overall assessment prescribed for a course or programme are described as Prescribed Degree Assessments.

#### **3.1 Formative and Summative Assessments**

*Formative Assessments* are widely distributed within the course and their purpose is to provide feedback to students on how well they are performing. There is no sanction or penalty for failing these “mock” assessments – they are intended to provide an early warning to students that they are not reaching the required standard. There are extensive support mechanisms within the SMMSN and formative exams often help staff to identify students who need help for one reason or another – e.g. because of illness or personal or financial difficulties.

Prescribed degree assessments are *summative assessments*. Feedback on summative assessments, however, can also serve a formative function. Students must have experience of all assessment types in a formative manner before exposure to this in a degree summative examination.

The ultimate authority for conduct of all prescribed degree assessments resides with the Head(s) of the relevant School(s).

### 3.2 MBChB assessment

Core material accounts for approximately 80% of all teaching and covers topics which are essential for all doctors. The SSCs make up the remaining 20% of the programme. Most of the SSCs involve group projects but the Humanities Module in Year 3 and the SSC in Year 5 are individual projects.

Assessment is built in throughout the five years of the course, to ensure that basic skills are mastered before moving on to more advanced topics. Since medicine is not simply a theoretical subject, teaching and learning covers knowledge, skills and attitudes, therefore assessment must do the same. A variety of summative assessment methods are used:

- **Written exams** – these test factual knowledge and application of that knowledge, but can also test clinical reasoning/diagnostic skills and, to a lesser extent, attitudes. The formats used are short answer questions and single best answer questions.
- **Objective Structured Practical Examinations (OSPE)** – this type of examination is used in anatomy, typically involving knowledge (identification of anatomical structures) but also application of that knowledge with related questions about function.
- **Course Work** - in some courses, essays or reports are written. Some courses also involve students working in groups to produce posters or oral presentations.

- **Clinical Examinations** – clinical skills include history taking, communication skills, procedural skills and examination technique. Diagnostic skills, knowledge of disease management and a wide range of behaviours including ethics and professionalism are also encompassed within clinical exams. These are tested by **Objective Structured Clinical Examinations (OSCE)**. These comprise a sequence of stations, usually between 9 and 18, each of which tests the candidate on his or her ability to perform a specific clinical task or solve a clinical problem. In Years 1 to 4, stations are 5 minutes long, but in Year 5 this is increased to 8 minutes to allow for more complex scenarios. In the final years of the course some of the assessment of clinical skills takes place with real patients in real clinical settings using workplace based assessment tools. This form of assessment is used as part of the ongoing assessment of all doctors.

### *Intercalated degree options*

A number of intercalated degree options are currently supported including:

- BSc (Hons) in Medical Sciences
- BSc (Hons) in Medical Sciences (Medical Humanities)
- MSc degrees (Various)

A variety of assessment methods are used including:

- **Written Exams** - These test factual knowledge, but can also test reasoning/diagnostic skills and, to a lesser extent, attitudes. The format includes MCQs, short answer and essay type questions.
- **Course Work** - In some courses, essays or reports are written. Some courses also involve students working in groups to produce posters or oral presentations.



**Research project thesis** – all programmes require students to complete an extended piece of research which culminates in the generation of a thesis or research paper, and usually an oral presentation and viva exam.

### **3.3 BDS**

Assessment is built in throughout the four taught years of the course, to ensure that basic skills are mastered before moving on to more advanced topics. Since dentistry is not simply a theoretical subject, teaching and learning covers knowledge, skills and attitudes and assessment must therefore do the same. A variety of assessment methods are used:

- Written exams – these test factual knowledge and application of that knowledge, but can also test clinical reasoning/diagnostic skills and, to a lesser extent, attitudes. The formats used are short answer questions, clinical scenario papers and single best answer questions.
- Course Work - In some courses, essays or reports are written. Some courses also involve students working in groups to produce posters or oral presentations.
- Clinical Exams – clinical skills include history taking, communication skills, procedural skills and examination technique. Diagnostic skills, knowledge of disease management and a wide range of professional skills including ethics are also encompassed within clinical exams.
  - OSPE is used in Year 2 at the December sitting only. This examination tests anatomy and histology through a sequence of stations.

- OSCEs are used in Years 2-4. The OSCEs comprise a sequence of stations, usually 10, each of which tests the candidate on his or her ability to perform a specific clinical task or solve a clinical problem.
- ISCEs are similar to OSCEs but are integrated – using long cases with multiple substations. There is also a presentation Case Examination in Year 5. This examination format involves the student presenting two of their clinical cases, one by presenting the patient along with a poster explaining the care provided and another case written as a case report. Students are then examined by structured viva, which explores the clinical care provided.
- Formative Assessments are widely distributed within the course and their purpose is to provide feedback to students on how well they are performing. There is no sanction or penalty for failing these “mock” exams – they are intended to provide an early warning to students that they are not reaching the required standard. There are support mechanisms within the Dental School and formative exams often help staff to identify students who need access to support for one reason or another – e.g. because of illness or personal or financial difficulties.

### **3.4 Masters in Physician Associate studies**

A variety of assessment methods are used:

- Written Exams - These test factual knowledge, but can also test clinical reasoning/diagnostic skills and, to a lesser extent, attitudes. The format includes single best answer questions and extended matching questions.

- Clinical Exams - Clinical skills include history taking, communication skills and examination technique. Diagnostic skills, knowledge of disease management and a wide range of professional skills including ethics are also encompassed within clinical exams. These are tested in the following way:
- OSCEs - These comprise a sequence of stations, usually between 12 to 18, each of which tests the candidate on his or her ability to perform a specific clinical task or solve a clinical problem in a specified time period (typically 8 minutes).
- National Exam - Upon successful completion of the University of Aberdeen assessments including the national exam graduates are eligible to be entered on the voluntary national register (PA MVR) and to practice as a PA in the UK.

### **3.5 Masters in Advanced Clinical Practice**

Assessments include written examinations and assignments, OSCEs , development of a portfolio including clinical practice assessments.

## **4. Specific assessment processes within SMMSN**

### **4.1 Examination blueprint and question selection**

Test content must be carefully planned against the intended learning outcomes, a process known as blueprinting.

A blueprint is a statement or description of what an examination covers.

Specifically, it includes the content areas covered, their relative percentages and the approximate number of questions in each area which should be expected on a typical assessment. In addition, questions are linked to the specific outcomes from relevant GMC, GDC or FPA documents.

The purposes of blueprinting are to:

- provide a clear link between the stated aims of a curriculum, the learning experiences and the assessment. Where this is achieved, an assessment is said to have *good content validity*.
- to demonstrate that an assessment has a defensible design, such that there is a fair balance of questions reflecting the time devoted to the component parts of the overall curriculum.
- provide a transparent method of supporting the effective learning of students.

Each summative assessment must have a blueprint which has been designed by the course/year teams.

The blueprint for each exam should be made available to external and internal examiners.

#### **4.2 Item writing**

The question format for each exam is predetermined. Questions can be written by any qualified teaching staff with expertise in the appropriate area.

Questions should then be reviewed by a range of staff to ensure clarity of wording and that answers are in line with current clinical practice. This will normally include subject specialists as well as those experienced in the

technical aspects of question design.

### **4.3 Written questions**

#### **4.3.1 Standard setting for written questions**

Apart from essay questions, the healthcare programmes in SMMSN have adopted the use of a modified Angoff procedure for standard setting written assessments. This is one of the most widely used procedures for setting the cut (passing) score in assessments. The Angoff procedure and its variants are examples of criterion referenced standard setting which is accepted best practice in standard setting in medical education assessment. A modified Angoff method is defensible in the eventuality of academic or legal challenge.

There are a number of guiding principles to standard setting which are summarised in the SOP for Standard Setting for Written Questions ([Assessment Central](#)). It is expected that the standard setting meeting will be run by the exam co-ordinator, who will identify judges for the panel. A panel should where possible comprise at least six judges with sufficient knowledge to make a judgement on the test items being reviewed and the probability that a borderline candidate would answer a question correctly. Judges should reflect a range of disciplines and seniorities and be competent to make academic judgements on test material. Where possible, at least one judge should be drawn from a different part of that healthcare curriculum to provide internal externality.

All written questions must be standard set before being used in a summative examination. There is no requirement to standard set questions that have been previously used for a previous exam, if they are unchanged *and* have demonstrated good metrics at previous diets. However, it is good practice to

update standard set marks on questions periodically to keep in line with current clinical standards.

#### **4.3.2 Disability provision and special needs**

All staff involved in formative and summative assessment of students must be aware of the necessary provisions for students with special circumstances and disabilities. These are documented in 'Guidance on Assessment for Students with Disabilities and Special Circumstances' ([Assessment Central](#)).

The University of Aberdeen's disabilities advisors meet with students to provide support and assessment of required provisions in a confidential manner. Students can self-refer and book an appointment for an assessment with the University of Aberdeen's Disability service which is widely advertised to students. The Disabilities service then communicates each individual student's needs and necessary extra provisions for the written examinations to the School Student Support Officer. The personal or health reasons for the provisions are not divulged by the University's Disabilities service and remain confidential unless the student themselves discloses this information.

<https://www.abdn.ac.uk/students/support/disability-services-3395.php>

Students must request provisions for chronic conditions no less than 4 weeks before an examination and no less than 8 weeks for chronic, stable conditions where they have already been seen by the Disability Service. For acute conditions or deterioration of chronic conditions every effort will be made to make reasonable adjustments.

Marking of individual exam papers should remain consistent for all students and no extra or reduced marking regimes provided for students with

disabilities provisions. Regardless of whether a student has a specific learning disability (e.g. dyslexia), no marks should be disallowed or deducted for poor spelling, grammar or sentence structure where the meaning of the candidate's answer is clear to the marker.

The Extenuating Circumstances Committee for the healthcare programmes will consider any issues which impact on individual students' assessment performance in these programmes (See Students' guide to the Exceptional Circumstances Committee, [Assessment Central](#)).

#### **4.3.3 Criteria for passing the written exam**

The pass mark of the exam will be set in advance at the standard setting meeting using a modified Angoff procedure. In order to pass the exam the student must equal or exceed the pass-mark. The papers of all students who have failed an exam or who are borderline (within 0.5 percent of the passmark) will be double marked (short answer or clinical scenario papers). UoA rules for moderation must be adhered to.

<https://www.abdn.ac.uk/staffnet/documents/academic-quality-handbook/AandF%20-%20Moderation%20Policy.pdf>

Guidance is provided for examiners where students give more than the required number of answers ([Assessment Central](#)).

#### **4.3.4 Quality Assurance of the written exam**

For exams with >50 students, the reliability of the exam can be measured using the Kruder-Richardson-20 (KR20) for single best answer items. The KR-20 will depend on the number of question items but ideally should be > 0.7.

Where short answer questions are used, the Cronbach's alpha will be calculated. This should ideally be  $>0.65$ .

Following the exam, the metrics produced for single best answer questions will be assessed by the exam coordinator. Questions with a point biserial  $<0.2$  and/or a facility of  $<40\%$  should be identified for review. Scrutiny of the short answer questions is undertaken by looking at facility (how many students passed the question) and 33% discrimination, i.e., how well the question discriminates between students of different levels of ability.

The Standard Operating procedure on 'Quality Assurance of Exams' is found in [Assessment Central](#).

#### **4.3.5 CGS calculation for written exams marked as percentages**

Most non-essay SMMNS written examinations will result in an overall percentage score. This must be converted to the Common Grading Scale. For exams where standard setting processes are used to determine the passmark, the marks will be mapped to CGS grade points after the exam using SMMSN guidance ([Assessment Central](#)). For certain courses it may be appropriate to have a fixed conversion of percentages to CGS grade points.

Students should be aware of how percentages will be mapped to CGS before they undertake exams. This is stated in the University of Aberdeen Code of Practice

<https://www.abdn.ac.uk/staffnet/teaching/faqs-from-staff-2855.php#4-how-do-i-map-numerical-assessments-eg-multiple-choice-to-the-common-grading-scale>

There may be candidates who due to special circumstances sit the exam for



the first time at the “re-sit”. If these candidates fail, normally they will be allowed to resit at the next diet of exams, i.e. the next academic year. In extremely exceptional circumstances, it may be possible for such a student to resit (at a third sitting) in the same academic year.

#### **4.3.6 Re-sit written examinations**

All candidates will be given the opportunity to sit a re-sit exam should they fail the first sitting of the written exam. No candidate is allowed to proceed to the next year without achieving a pass in the written exams. The CGS mark for the first sitting is used in the GPA calculation.

#### **4.4 OSCEs**

##### **4.4.1 Standard setting for the OSCE**

Two standard setting methods are used for OSCE examinations in the Institute of Education for Medical and Dental Sciences: the borderline regression method is preferred, however this is not suitable for small cohorts and so a modified Angoff method is used in Dental, Physician Associate and Advanced Clinical Practice courses.

The borderline regression method is undertaken in the following way:

Examiners are asked to complete the checklist score for a candidate performing a station. They are then asked to award a global score or grade.

The number of scores can vary however we use a 5 point global score rating scale - namely:

- Excellent
- Highly satisfactory
- Satisfactory
- Borderline
- Unsatisfactory

The borderline grade reflects those candidates whom the examiner feels have not performed well enough to pass the station but equally not enough to clearly fail. The global score carries no marks for the station.

The global scores are collated and statistically regressed (see figure below) against the checklist scores. This process will then derive the cut or passing score where the regression line cuts the borderline category.



#### 4.4.3 Criteria for passing the OSCE

In medicine, for all years, in order for a student to pass the OSCE in each year of study, they must achieve the OSCE pass mark (standard set pass mark for all stations + one root mean square error (RMSE) for the exam) *and* pass at least two thirds of the OSCE stations. The papers of all students who have failed or are borderline will be double checked. See SOP OSCE pass mark ([Assessment Central](#)).

In Dentistry, students must achieve the passmark and pass at least half of the stations in order to pass. As standard setting is by a modified Angoff method, there is no standard error. Again papers of borderline and failed candidates will be double checked.

In the Physician Associate and Advanced Clinical Practice courses, students must pass at least 75% of the stations as well as achieve the passmark. The National Exam for Physician Associates requires at least 75% of stations to be passed in addition to the achieving the passmark.

#### **4.4.4 Quality Assurance of the OSCE**

For exams with >50 students, the Cronbach's alpha is calculated for the overall exam (ideally this should be greater than 0.65 for senior years' exams, but may be lower in the early years of the course as the metric is related to the number of stations). Poorly performing questions may be removed following discussions between the exam co-ordinator, year co-ordinator and assessment lead or deputy. See [Assessment Central](#). Very rarely, adjustment can be made if there are process issues on the day of the OSCE.

Guidance is available regarding organising and running OSCEs for year/OSCE co-ordinators, OSCE secretary, Lead Site Coordinator/Clinical Skills Manager ([Assessment Central](#)).

A timeline for the organisation of OSCEs is given in [Assessment Central](#).

#### **4.4.5 CGS calculation for the OSCE**

Students who do not achieve a pass at two-thirds of stations in MBChB programme or half of stations in the BDS programme will be awarded a fail grade (<D3), with the grade point dependent on the overall number of stations failed. Students who do not achieve the overall passing score will also be awarded a fail grade (<D3). Students who pass the required number of stations *and* achieve the pass mark will be awarded a grade in line with their overall percentage, regardless of the number of stations failed. As each OSCE is standard set, percentage marks will be mapped to grade points after the exam using SMMSN guidance ([Assessment Central](#)).

#### **4.4.6 Re-sit OSCEs**

Each year of the healthcare programmes offer a resit opportunity.

In the MBChB the resit passmark for each station is taken from the last use (i.e. it is based on the performance of a whole cohort of students at that year level, or standard set by modified Angoff). A small number of new stations may be used, with manual standard setting. In the dental and PA OSCEs, questions are re-standard set for the re-sit exam.

#### **4.5 Objective Structured Practical Exams (OSPEs)**

The OSPE exam will be undertaken within the Anatomy department using a variety of specimens, models and images. In medicine and PA, each “station” has two questions and is 90 seconds long. Questions are around 10 words in length. The Disability Service has confirmed that no extra time is needed in these stations for any student, however where questions exceed this word limit, a rest station will be placed after this station to allow for any extra time provision.

The dental OSPE consists of SBA questions related to the specimens at each station.

Guidance on standard setting using a modified Angoff method in OSPEs is given in [Assessment Central](#).

#### **4.6 Presentation of processes and results at the examiners’ meeting**

The exam co-ordinators are expected to present the assessment processes involved in the OSCE and the exam results at the examiners’ meetings in a standardised manner across all years. This process is covered by the ‘Standard Operating Procedure for Examiners’ Meetings’ ([Assessment Central](#)). The examiners’ meeting minutes should reflect the format of this SOP.

See also [Assessment Central](#) “SOP for chairing board of examiners meetings”

## Appendix 1a: The SMMSN Feedback and Assessment Committee

**Remit:** To provide strategic direction for assessment policy and quality assurance of all assessment and feedback within the Institute.

- To take summary reports from the programme/course leads and the assessment subcommittees
- To ensure best practice in assessment and seek to improve feedback to students and faculty
- To approve substantial changes to assessment structures
- To consider external developments that might impact on the operation of examinations and assessment in the IEMDS.
- To approve proposals put forward by the following subcommittees:
  - Practical and clinical assessment, Written and anatomy assessment, iPad education
- To oversee the operation of examination boards and consider issues arising from these
- To consider matters arising from academic appeals
- To oversee and approve new and revised assessment standard operating procedures

The committee will meet a minimum of four times per year and will report to the School Teaching and Learning Committees for Science and the Healthcare programmes.

### **Membership:**

Assessment Leads	Dr Isobel Cameron, Dr John Barrow (Joint Chairs)
Senior Assessment Secretary	Ms Isabel McPhee (clerk)
Deputy Healthcare Assessment Leads	Dr Laura Gates, Dr Frances Wilkinson
Head of IEMDS	Prof Rona Patey
Deputy Heads of IEMDS	Prof Gordon McEwan
Director of MBChB Teaching (Inverness)	Prof John Duncan
Director of Dentistry	Prof John Gibson
Dental Assessment Lead	Mrs Rosa Moreno Lopez
Physician Associate Lead	Dr James McLay
Intercalated Lead	Prof Mohamed Abdel-Fattah
Biomedical Sciences Lead	Dr Derryck Shewan
Medical Sciences UG Support Coordinator	Mrs Jenna Reynolds
Assistant College Registrar (PG)	Mrs Karen Slessor
Personal Chair, Medical Education	Prof Stephen Davies
Dean of UG Studies: Science & Healthcare	Prof Alison Jenkinson
Lead for Postgraduate taught Programmes	Dr Donna MacCallum
Curriculum Manager	Dr Christine Kay

1 each of Medical, Dental and Medical Science Student representatives.

## 1b: SMMSN Written and Anatomy Assessment Group

**Remit:** To provide strategic oversight of all practical and clinical assessment in the SMMSN.

- To monitor and review matters relating to the organisation, process and conduct of practical and clinical forms of assessment
- To ensure best practice in assessment and feedback
- To ensure a team approach across the school
- To ensure transparency and fairness in assessment processes
- To foster a uniform approach and progression across all courses and years of the programmes
- To discuss changes to assessment structures
- To consider issues arising from examination boards and OSCE post mortems, sharing good practice.
- To encourage innovative assessment techniques

The committee will meet a minimum of three times per year and will report to the SMMSN feedback and assessment committee.

### **Membership:**

Deputy Assessment Lead	Dr Laura Gates
Assessment Lead (HCP)	Dr Isobel Cameron
Assessment Lead (MS)	Dr John Barrow
Assessment Secretary	Ms Jenny Dick (clerk)
BDS	Dr Rosa Moreno Lopez
PA Lead or Deputy	Dr James McLay / Mrs Linda Watson
Anatomy	Prof Simon Parson/ Prof Jaya Jayasinghe
Year 1 MBChB Written	Dr Alison Jack
Year 2 MBChB Written	Dr Pietro Marini
Year 3 MBChB Written	Dr Sharon Rajkumar
Year 4 MBChB Written	Mr Paddy Ashcroft
MBChB Academic Primary Care	Dr Shirley Laird
MBChB Principles of Disease	Prof Graeme Murray
MBChB Principles of Disease	Dr Karolin Hijazi
MBChB SSC	Dr Amudha Poobalan
Medical Sciences	Dr Derek Scott (eLearning Lead)

Medical Sciences  
Post-graduate

Dr Michael Scholz (VLE and SRS Lead)  
to be appointed



## 1c: SMMSN Practical Assessment Group

**Remit:** To provide strategic oversight of all OSCE and clinical assessment in the division of medical and dental education.

- To monitor and review matters relating to the organisation, process and conduct of OSCE and clinical forms of assessment
- To ensure best practice in assessment
- To ensure a team approach across the division
- To ensure transparency and fairness in assessment processes
- To foster a uniform approach and progression across the years of the programmes
- To discuss changes to assessment structures
- To consider issues arising from examination boards and OSCE post mortems, sharing good practice.

The committee will meet a minimum of four times per year and will report to the DMDE assessment executive committee.

### Membership:

Deputy Assessment Lead	Dr Fran Wilkinson (Chair)
Senior Assessment Secretary	Ms Isabel McPhee (Clerk)
Assessment Lead (HCP)	Dr Isobel Cameron
BDS OSCE Lead	Dr Rosa Lopez/deputy
PA OSCE Lead	Mrs Linda Watson
Year 1 OSCE Lead	Dr Alyaa Mostafa
Year 2 OSCE Lead	Dr Jackie Reaper
Year 3 OSCE Lead	Dr Ambreen Shakil
Year 4 OSCE Lead	Dr Fran Wilkinson
Year 5 OSCE Leads	Dr Mary Joan MacLeod / Dr Craig Brown
Medi-CAL	Mr Jonathan Goode
Psychometrician	Dr Mustafa Asil
Director of Clinical Skills	Dr Angus Cooper
Academic Primary Care	Dr John McKeown

Comm. Skills Lead	to be appointed
Patient Partner Manager	Ms Marie Anderson
Clinical Skills Manager	Dr Jerry Morse
Medical Sciences	Dr Derek Scott (eLearning Lead)
Medical Sciences	Dr Michael Scholz (VLE and SRS Lead)
Medical Sciences Coordinator)	Dr Steve Tucker (Level 3 & 4 UG Retention and Progression

## **Appendix 1d: BDS Assessment Committee**

### **Remit**

The BDS assessment committee meets on the first Wednesday of every month. The remit of this group is to provide ongoing strategic management of the assessment process in the BDS degree programme. The assessment group reports to the BDS curriculum steering group and to the SMMSN FAC.

### **Membership**

The group is chaired by the BDS assessment lead and its membership includes the head of dental school, deputy head of dental school and year leads and deputies. Theme leads may be invited on an ad hoc basis if the agenda requires their input.

## **Appendix 1e: PA Assessment Committee**

### **Remit**

- To plan and deliver formative and summative assessments for the PA programme
- To meet at least twice a year, reporting to the SMMSN FAC.

### **Membership**

Assessment Lead, Institute of Education for Medical and Dental Sciences

Physician Assistant Course Director (Convener)

Deputy Physician Assistant Course Director

MBChB Curriculum Manager

PA Adviser

Clinical Tutor

Physician Assistant Secretary (Clerk)

Clinical Skills Centre Manager

Senior Teaching Fellow, School of Medical Sciences

## **APPENDIX 2: SMMSN Healthcare Programmes Assessment Standard Operating Procedures and Guidelines**

Current SOPs and guidelines (available at [Assessment Central](#)):

Standard setting for written questions using Angoff methodology  
Guidance on Assessment for Students with Disabilities and Special Circumstances  
Quality Assurance of Summative Assessments  
SOP for Invigilating in written medical & dental examinations  
Guidelines for Examiners: Written examinations where students give more than the required number of answers  
SOP for chairing board of examiners meetings  
Standard operating procedure for the MBChB Board of Examiners  
Conversion of Raw marks to CGS marks in IEMDS  
Criteria for passing the OSCE  
Guidance on organising and running OSCEs  
Timeline for exams  
Standard setting in OSPEs  
SOP – External examiner recruitment  
SOP – OSCE examiners for MBChB examinations  
SOP – Feedback on summative assessment (student)  
SOP – patient partners  
Guidance – Students’ guide to assessment processes within the healthcare programmes  
Guidance – Students’ guide to exceptional circumstances committee for summative assessments.  
Students’ Guide to Assessment

Written Assessment Guide for candidates

Practical Assessment Guide for candidates