

SOP for Blueprinting and Question Selection (Healthcare Programmes)

Blueprinting

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

Different levels of blueprinting

- **Course Level** – Does course content match learning outcomes? Does course content match course assessment?
- **Programme Level** – are all outcomes taught by the end of the programme? Are all outcomes assessed by the end of the programme?
- **Outcomes** – local or regulator outcomes

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

An important aim of blueprinting is to reduce under sampling or biased sampling of the course content or curriculum.

The purposes of blueprinting are to provide a clear link between the stated outcomes of a curriculum, the learning experiences and the assessment to:

- ensure alignment between what is taught and/or learned and what is assessed
- ensure validity by enabling wide and consistent sampling
- guide the number of test items / cases
- demonstrate a fair balance of questions reflecting the time devoted to the component parts of the curriculum
- provide a transparent method of supporting the learning of students

The blueprint is a key faculty document which is evidence of the content validity of the programme (for regulators and stakeholders). It also makes the construction of exams easier for the Exam Coordinator and fairer for candidates.

For existing assessments, the assessment coordinator / year team should already hold the blueprint. Each summative assessment must have an individual blueprint. This is usually a spreadsheet, grid, matrix or table with two axes showing how curricular content will be covered and sampled in the individual assessment.

1. Define the purpose and level of the test E.g., Year X, successful completion of
2. Populate the axes

Usually, the top horizontal x axis consists of domains or skills such as history taking, diagnosis and management etc. which form the column headings. The vertical axis content consists of such as conditions or presentations, which form the row headings.

Ensure these are mapped to the curricular learning outcomes.

Objective Structured Clinical Examination (OSCE) Templates

Below is the template for an individual OSCE exam.

	History taking	Information giving	Examination	Procedure	No of questions
System 1					Total system 1
System 2					Total system 2
System 3					Total system 3
System 4 etc.					Total system 4
No. of questions	Total history taking	Total information giving	Total examination	Total procedure	Total OSCE stations

The OSCE coordinators must also maintain a longitudinal blueprint for each programme. This ensures that we are sampling as widely as possible across the curriculum.

Example Longitudinal Blueprint

	History taking	Information giving	Examination	Procedure
System 1 Respiratory	Breathlessness Pleuritic pain Cough	PEFR chart	General examination Respiratory Respiratory	Hand washing Inhaler technique
System 2 CVS	Chest pain Palpitations Collapse		Precordium Peripheral pulses	BP ECG ECG interpretation
System 3 Abdomen	Abdominal pain Weight loss		Abdomen	Rectal model
System 4 Endo & Diabetes etc.	New onset diabetes mellitus Hypo	Hypothyroidism	Ophthalmoscopy Diabetic feet	Urinalysis

Year 1, Year 2, Year 3, Year 4, Year 5

The Written Exam Template

System and topics	Number of questions
System/topic 1	Total no. for system/topic 1
Subtopic A	Total no. for subtopic A
Subtopic B	Total no. for subtopic B
Subtopic C etc,	Total no. for subtopic C etc,
System/topic 2	Total no. for system/topic 2
Subtopic A etc.	Total no. for subtopic A etc.

The blueprint functionality of the Exam-Write platform allows an exam blueprint (identified by programme year and exam code) to be created in the item bank.

Please refer to

- **Standard Operating Procedure (SOP) on Blueprinting.**
- [MSCAA How to Blueprint Exam](#)

Question selection

The blueprint can then be allocated to the exam and used to monitor the coverage of tags selected for the exam.