The ISCP was originally approved by PMETB for implementation in 2007. In January 2010 it was re-approved for implementation in August 2010 against the full set of standards for curricula and assessment systems defined by PMETB (now merged with the GMC).

In the two years since its inception the ISCP has evolved in line with changes in surgical practice. Feedback from key stakeholders, mainly trainees, trainers and Programme Directors, has also influenced content, providing further areas of practical benefit for trainees.

The result is an updated curriculum, commencing in August 2010 to view and download into Learning Agreements by the first placement.

What has changed?

The focus is on enabling trainees to demonstrate progression through a comprehensive syllabus and assessment framework. There has been development in the following key areas.

1. The structure of early years training
2. Early years syllabus
3. The definition of the knowledge skill level in the early years
4. JCST standards for core surgical training
5. Professional Behaviour and Leadership Skills syllabus
6. MRCS
7. MRCS(ENT)
8. Intermediate and Final stage syllabus for General Surgery
9. Head and Neck special interest module in three disciplines
10. Workplace-based assessments (MSF, mini-CEX and CBD)

1. The structure of early years training

The GMC has approved the period of core surgical training as two indicative years. Generic and themed core programmes will comprise Core Training Year 1 (CT1) and Core Training Year 2 (CT2). Run-through programmes will comprise Specialty Training Year 1 (ST1) and Specialty Training Year 2 (ST2). Neurosurgery includes an additional early years specialty-specific ST3 year. Higher specialty training begins at ST3 (except in Neurosurgery which is at ST4).

2. Early years syllabus

The overall purpose of the early years syllabus is to provide surgical trainees with broad based generic surgical competencies, complemented by additional specialty-specific competencies that will allow entry into the desired specialty.

The content of the new early years syllabus was derived from the existing Initial Stage syllabuses and has been divided into the mandatory requirement for all surgical trainees (the common component appended below) and the elective requirement for the chosen specialty (specialty-specific component).

The original Initial Stages were written for run-through training while the new early years syllabus allows for a variety of routes:

a) A Core Surgical Training syllabus is for trainees in generic or themed core programmes:
   ⇒ Cardiothoracic Surgery; General Surgery; Otolaryngology; Paediatric Surgery; Oral and Maxillofacial Surgery; Plastic Surgery, Trauma and Orthopaedic Surgery and Urology

b) The Initial Stage of the specialty syllabus is for trainees in run-through programmes:
   ⇒ Neurosurgery and Trauma and Orthopaedic Surgery

Fully decoupled specialties will no longer include an Initial Stage in their specialty syllabuses:
⇒ Cardiothoracic Surgery; Oral and Maxillofacial Surgery, Plastic Surgery and Urology.

Three specialties that have decoupled in England, Wales and Northern Ireland will retain the Initial Stage in the specialty syllabus specifically for the run-through programmes they offer in Scotland:
⇒ General Surgery; Otolaryngology and Paediatric Surgery.
3. The definition of the knowledge skill level in the early years

The depth of knowledge required in the early years (formerly defined on a 4-point scale) has been re-defined through exemplar texts. At the intermediate and final stages the 4-point scale is still used.

The texts are not recommended as the sole source of the subject matter but exemplify the depth and mastery of the knowledge trainees need to make use of in the context of surgical practice. It is also recommended that trainees read beyond the texts.

The 4 skill levels for the practical application of knowledge through clinical and technical skills continue to be used throughout the curriculum:

4. JCST standards for core surgical training

The principle findings of the Eraut report\(^1\) into the implementation of the ISCP included:

- a recognition of the negative impact of external factors such as Modernising Medical Careers, service priorities and the European Working Time Directive on the provision of training, over which ISCP has no control;
- the critical lack of time spent in the operating theatre, particularly in the first two years of training; and
- problems with the introduction of ambitious new roles and responsibilities for trainers, which were not always well understood or implemented.

While it is recognised that the solution to some of the problems has a wider political dimension, the JCST felt that positive action should be taken urgently to try to restore the quality of surgical training. Therefore, in collaboration with the heads of schools of surgery and the Association of Surgeons in Training (ASiT), the JCST has devised five requirements or standards for the delivery of high-quality core surgical training.

SMART is a mnemonic commonly used in project management and in objective setting as a way of evaluating goals or targets for specific activities. The letters usually stand for:

- Specific
- Measurable
- Attainable
- Relevant
- Time-framed

Applying these attributes to the requirements of core training, we have devised the following five SMART standards:

1. All trainees to spend an average of 4 operating sessions per week in theatre
2. All trainees to attend at least one out patient session per week (alternatively 5 sessions per week of consultant supervised clinical activity)
3. All trainees to receive at least 2 hours of structured teaching per week
4. All trainees must have a learning agreement and an AES
5. All trainees must do one WPBA per week

At first sight these standards might seem a little demanding, possibly even to some as unrealistic, however, the JCST consider that robust action is needed to reverse the continuing decline in core training and it is expected that all training programmes, wherever possible, will aspire to these standards.

More information can be found in the April 2010 edition of the Bulletin of the Royal College of Surgeons of England at [http://www.rcseng.ac.uk/publications](http://www.rcseng.ac.uk/publications)

\(^1\) Eraut M. Evaluation of Phase 2 of the Intercollegiate Surgical Curriculum Project. Falmer: University of Sussex; 2005.

5. Professional Behaviour and Leadership Skills syllabus

The 2007 Professional Skills and Behaviour syllabus was based around the principles of CanMEDS while the new version is mapped to the GMC’s Good Medical Practice. The new syllabus also emphasises the need for high levels of leadership competencies in surgical practice.

The syllabus domains continue to be divided into Knowledge, Skills and Behaviour. The standards for this component of the syllabus has been set using a series of descriptors that indicate the sorts of activities that trainees should be able to successfully undertake at two specific time points, namely the end of early years training (entry into ST3) and the end of surgical training (CCT).
6. MRCS
As of May 2010, the MRCS Part B (OSCE) comprises 18 examined stations (formerly 16). The stations have been reconfigured into four Broad Content Areas (formerly five) and the knowledge, skills, competencies and professional characteristics assessed have been reconfigured into four domains (formerly six). Domains no longer represent pass/fail criteria but are used primarily for structuring the scenarios and mark sheets and for candidate feedback. Each station is marked out of 20 (formerly 16). The choice of specialty context stations has been reduced.

7. MRCS(ENT)
The examination route for entry to ST3 in Otolaryngology has been modified. Trainees had been required to sit Part A of MRCS (MCQ) together with Part 1 (MCQ) and Part 2 (OSCE) of the DO-HNS examination. Because the two MCQ components are comparable, trainees are now required to sit only the Part A of MRCS and the Part 2 OSCE of the DO-HNS examination. The examination will lead to the Intercollegiate MRCS(ENT) Diploma as illustrated below:

8. Intermediate and Final stage syllabus for General Surgery
Higher specialty training in General Surgery has been subdivided into Intermediate (ST3 & 4), Final I (ST5 –6) and Final II (ST7-8) stages. The emphasis during the intermediate stages is on elective and emergency general surgery together with the breadth of exposure to areas of special interest. The final stage consists of two strands, which run concurrently throughout ST5-8.

1. An emergency/general strand which must be covered by all trainees including those who have taken an academic pathway. Topics are described on the basis of indicative years throughout ST5-8.
2. Training in areas of special interest. The degree of subspecialisation desired by the trainee may vary depending on his/her career aims.

Syllabus content has been significantly enhanced in the sections on Breast, Upper Gastrointestinal (Oesophago-gastric and Hepato-pancreato-biliary) and Vascular Surgery.

- In the Breast special interest section there are now sections on the assessment of breast conditions, benign breast disease and breast cancer required for training in breast and oncoplastic surgery.
- The Upper GI section has been expanded to include benign and malignant oesophageal, gastric and pancreato-biliary disorders in greater detail as well as sections on morbid obesity and nutrition.
- There is a more complete section on liver disorders.
- Vascular surgery is a rapidly evolving area particularly with regard to radiological interventions. This section has been re-written by the Vascular Society Educational Committee to reflect these changes. The alterations will not affect duration of training.
- There have been some modifications to the content of the general surgery and lower gastrointestinal sections, principally in the structure and presentation of the topics.
- The sections on transplantation and endocrine surgery have some changes in the competence criteria at different stages of training, but there have been no changes in content.
- General Surgery of Childhood, Military Surgery and Remote and Rural surgery are largely unchanged apart from presentation in the new format.

9. Head and Neck special interest module
This new module has been introduced within the Special Interest stages of Oral and Maxillofacial Surgery, Otolaryngology and Plastic Surgery. It provides training that supports the operation of an integrated service for the treatment of head and neck cancers, focussing on squamous cancers through multi-disciplinary team working, joint operating and management. On completion of training, trainees will become full members of an interdisciplinary head and neck oncology team. The module does not affect the duration of training in these specialties.
10. Workplace-based assessments (MSF, mini-CEX and CBD)

The JCST regularly reviews the effectiveness of ISCP assessments against a number of key performance indicators, including user feedback and developments in complementary disciplines, in order to identify priorities for improvement. Three tools are being further developed for implementation in August.

The mini-PAT has been re-named Multisource Feedback (MSF) in Surgery and the title mini-CEX has been shortened to CEX. The MSF, CEX and CBD competencies are to be scored as Satisfactory, Outstanding or Development required. The CEX and CBD will also include the 5-point global summary shown below and the forms will include a space for an optional brief summary of the case:

| Level 0: | Performed at or below the level expected during Foundation Programme (FP) |
| Level 1: | Performed at the level expected at completion of FP or early Core Surgical Training (CST) |
| Level 2: | Performed at the level expected at completion of CST or early Specialty Training (ST) |
| Level 3: | Performed at the level expected during central period of ST |
| Level 4: | Performed at the level expected for Certificate of Completion of Training (CCT) |

What is the impact of these changes?

- **The syllabus**

All trainees, with the exception of those in the final two indicative years of training, should use the 2010 version of the syllabus, although previous version will be accessible. Switching to the new version of the syllabus should be of very minor impact. Those in the final two years may wish to finish their training using the version to which they are accustomed. The training levels have not changed and are as presented in the table below. The duration of training to CCT is unchanged.

<table>
<thead>
<tr>
<th>Training level</th>
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<tbody>
<tr>
<td>2007-2009</td>
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<tr>
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<td>CT2 Level 2</td>
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<td>ST7</td>
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<td>ST8</td>
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| 2010 Version: |
| Core Surgical Training syllabus |
| Initial Stage of the specialty syllabus |
| Specialty Syllabus |
| Trainees can continue using 2007-9 versions in the final 2 years of training |

- **Workplace-based assessment**

Revised assessment forms will appear on the ISCP website in August and the current versions will be removed. Trainees should upload any current assessments into their portfolios as soon as possible while they can still be recorded. There will also be updated guidance notes for trainers and trainees.

- **Learning Agreements**

The syllabus topics that were signed off as satisfactory by the trainee’s Assigned Educational Supervisor will still be counted. Trainees are, however, considered to be working towards the standard for completion of the stage of training as an ongoing process.

In the early years, where additional training opportunities exist in the specialty of interest (outside the scope of the syllabus) then topics from the higher specialty training stages can also be included in the Learning Agreement and assessed using workplace-based assessments.
APPENDIX

Common component of the early years syllabus

Module 1: Basic Science Knowledge relevant to surgical practice
(These can all be contextualised within the list of presenting symptoms and conditions outlined in module 2)
• Anatomy
• Physiology
• Pharmacology - in particular safe prescribing
• Pathological principles underlying system specific pathology
• Microbiology
• Diagnostic and interventional radiology

Module 2: Common surgical conditions
• To assess and initiate investigation and management of common surgical conditions which may confront any patient whilst under the care of surgeons, irrespective of their speciality.
• To have sufficient understanding of these conditions so as to know what and to whom to refer in a way that an insightful discussion may take place with colleagues whom will be involved in the definitive management of these conditions.
• This defines the scope and depth of the topics in the generality of clinical surgery required of any surgeon irrespective of their ST3 defined speciality

Module 3 Basic surgical skills
• To prepare oneself for surgery
• To safely administer appropriate local anaesthetic agents
• To handle surgical instruments safely
• To handle tissues safely
• To incise and close superficial tissues accurately
• To tie secure knots
• To safely use surgical diathermy
• To achieve haemostasis of superficial vessels.
• To use a suitable surgical drain appropriately.
• To assist helpfully, even when the operation is not familiar.
• To understand the principles of anastomosis
• To understand the principles of endoscopy including laparoscopy

Module 4: The principles of assessment and management of the surgical patient
• To assess the surgical patient
• To elicit a history that is relevant, concise, accurate and appropriate to the patient’s problem
• To produce timely, complete and legible clinical records.
• To assess the patient adequately prior to operation and manage any pre-operative problems appropriately.
• To propose and initiate surgical or non-surgical management as appropriate.
• To take informed consent for straightforward cases.

Module 5: Peri-operative care of the surgical patient
• To manage patient care in the peri-operative period.
• To assess and manage preoperative risk.
• To take part in the conduct of safe surgery in the operating theatre environment.
• To assess and manage bleeding including the use of blood products.
• To care for the patient in the post-operative period including the assessment of common complications.
• To assess and plan perioperative nutritional management.
Module 6: Assessment and early treatment of the patient with trauma
- To safely assess the multiply injured patient.
- To safely assess and initiate management of patients with
  - traumatic skin and soft tissue injury
  - chest trauma
  - a head injury
  - a spinal cord injury
  - abdominal and urogenital trauma
  - vascular trauma
  - a single or multiple fractures or dislocations
  - burns

Module 7: Surgical care of the paediatric patient
- To assess and manage children with surgical problems, understanding the similarities and differences from adult surgical patients.
- To understand common issues of child protection and to take action as appropriate.

Module 8: Management of the dying patient
- To manage the dying patient appropriately.
- To manage the dying patient in consultation with the palliative care team.

Module 9: Organ and tissue transplantation
- To understand the principles of organ and tissue transplantation.
- To assess brain stem death and understand its relevance to continued life support and organ donation.

Module 10: Professional behaviour
- To provide good clinical care
- To be a good communicator
- To teach and to train
- To keep up to date and know how to analyse data
- To understand and manage people and resources within the health environment
- To promote good Health
- To understand the ethical and legal obligations of a surgeon

In addition there will be a limited range of competencies that are relevant to the chosen surgical specialty (defined in the specialty-specific modules of the early years syllabus).