

## Joint Committee on Intercollegiate Examinations

# Intercollegiate Specialty Examination in Plastic Surgery

## Syllabus Blueprint 2023

The Royal College of Surgeons of Edinburgh  
Nicolson Street Edinburgh EH8 9DW  
Tel: 0131 662 9222  
[www.jcie.org.uk](http://www.jcie.org.uk)

## Principles for Blueprinting Assessment to the Curriculum in Surgical Specialties

1. Standard educational practice requires a curriculum to include an indication of how each aspect of the syllabus is to be assessed. This “blueprinting” process also shows how each aspect relates to Good Medical Practice.
2. Each specialty syllabus has been mapped to a range of assessments:
  - a. CEX
  - b. CBD
  - c. DOPS
  - d. PBA
  - e. MSF
  - f. Section 1 Intercollegiate Specialty Board (ISB) Examination - written section
  - g. Section 2 Intercollegiate Specialty Board (ISB) Examination - clinical and oral section
3. This does not imply that the indicated assessments must be used.
4. The indications are not exclusive, and it is possible that other types of assessment which have not been indicated may also be used to assess individual items.
5. In general:
  - a. Knowledge will be assessed by Section 1 and Section 2 ISB Examination and by CBD.
  - b. Clinical skills will be assessed by CEX and Section 2 ISB Examination.
  - c. The use of scenarios within Section 2 ISB Examination allows a wide range of clinical skills to be assessed.
  - d. Technical skills will be assessed by DOPS and PBA
  - e. Professional skills will be assessed by MSF
6. The blueprinting indicates which assessments may be used for each item at any stage through training.
7. The Good Medical Practice domains are:
  1. Knowledge, skills and performance
  2. Safety and quality
  3. Communication, partnership and teamwork
  4. Maintaining trust

Aesthetic Surgery of Face, Orbit & Neck	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquires competence in the diagnosis, aesthetic assessment and safe management of all patients presenting for consideration of avoidance or reversal of the features of physiological ageing of the face, brow, neck and orbits								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
psychology of the desire for anti-ageing interventions		X					X	1
features denoting high-risk groups of patients that may present for surgical rejuvenation		X				X	X	1
normal facial anatomy and its common variants, including clear understanding of the blood supply, sensory and motor innervation		X				X	X	1
facial musculature and the course and distribution of the facial nerve		X				X	X	1
the fascial planes of the face and the brow and the pattern of fascial compartments of the brow, face and neck		X				X	X	1
anatomy of the eyelids		X				X	X	1
cosmetic units of the face		X				X	X	1
the effect of sun exposure on the texture and elasticity of the skin and the patterns of aging		X				X	X	1
effect of various laser/light treatments on the dermis		X				X	X	1
mechanisms of healing of partial thickness injury in facial skin		X				X	X	1
formulation and application of chemical peeling agents		X				X	X	1
<b>INTERMEDIATE</b>								
Should be able to demonstrate knowledge of:								
accurate assessment and analysis of the pattern of face aging		X				X	X	1
injectable fillers available, their uses, contraindications and interactions		X				X	X	1
pharmacology of paralytic agents, the different formulations and the muscle groups to which they may be applied		X				X	X	1
role of fillers and paralytics in the overall patient management plan		X				X	X	1
indications for, and design of, endoscopic and open browlift and foreheadplasty		X				X	X	1
fixation methods in brow lift		X				X	X	1
indications and contraindications for facelift		X				X	X	1
anatomy of the SMAS layer and how it may be modified		X				X	X	1
facial fat pads and how they change with time		X				X	X	1
variation of designs for facelift incisions		X				X	X	1
different methods of facelifting		X				X	X	1
different methods of necklifting		X				X	X	1
designs and variations of blepharoplasty, upper and lower		X				X	X	1
role of submental lipectomy and liposuction		X				X	X	1
management of complications of rejuvenation surgery		X				X	X	1
<b>ADVANCED</b>								
Should be able to demonstrate knowledge of:								
applications, indications, limitations and complications of blepharoplasty alone and in combination with other techniques		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
assess and deliver non-operative management of the acute surgical patient		X					X	1
take history to include features relevant to the assessment and management of the aesthetic features of the head and neck	X						X	1
examine the patient to include relevant aesthetic features of the head and neck	X						X	1
<b>INTERMEDIATE</b>								
assessment and analysis of all the features of the aging eyelid	X						X	1
demonstrate knowledge of the management algorithms, combinations and permutations of the rejuvenation procedures covered in this section including appropriate investigations		X					X	1
record accurate assessment of the pattern of symptoms and physical features		X					X	1
<b>ADVANCED</b>								
demonstrate skills of analysis and diagnostic synthesis, judgement, surgical planning		X					X	1
prepare an overall management plan for a given patient		X					X	1
assess the psychological suitability for rejuvenation surgery and appropriately refer for expert advice as necessary		X					X	1
undertake risk benefit analysis of non-pathological based surgery		X					X	1
counsel and consent a patient for rejuvenation intervention		X					X	1
define the subgroup of patients that can be managed by nonsurgical intervention		X					X	1
recognise and counsel the unrealistic patient	X	X					X	1
manage the situation whereby a patient's best interests are served by declining to treat that patient		X					X	3,1
deal with disappointment and postoperative dissatisfaction		X					X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
planning, designing and performing excision of facial skin lesions for aesthetic indications				X			X	1
selecting and using injectables for fine rhytids				X			X	1
using paralytics to weaken aging muscle groups				X			X	1
upper lid blepharoplasty				X			X	1
<b>INTERMEDIATE</b>								
facelift with plication of the SMAS				X			X	1
MACS lift				X			X	1
submental lipectomy				X			X	1
liposuction for the face and neck areas.				X			X	1
pan or regional facial rejuvenation by laser / chemical peel / dermabrasion				X			X	1
<b>ADVANCED</b>								
lower lid blepharoplasty by external or transconjunctival approaches				X			X	1

Rhinoplasty and Otoplasty	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Competence in the diagnosis, planning and management of all aspects of aesthetic nasal and aesthetic ear surgery								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
<b>Rhinoplasty</b>								
anatomy of the nose including detailed description of the bone, cartilage, soft tissue structures, aesthetic units		X				X	X	1
blood supply of the nose including ophthalmic artery, facial artery and angular artery as well as nerve supply		X				X	X	1
physiological functions of the nose and how these may be affected by nasal surgery		X				X	X	1

facial aesthetics including the psychological implications of rhinoplasty surgery		X				X	X	1
dysmorphophobia and recognises clinical features of condition		X				X	X	1
local anaesthesia and the use of topical agents such as cocaine		X				X	X	1
<b>Otoplasty</b>								
anatomy of the ear including embryology and growth (including nomenclature of different elements of the ear)		X				X	X	1
blood supply of the ear including branches from external carotid artery, posterior auricular artery and superficial temporal artery		X				X	X	1
nerve supply of the ear including auriculotemporal nerve, great auricular nerve, branches of the vagus nerve and lesser occipital nerve		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
<b>Rhinoplasty</b>								
techniques to manage the nasal dorsum including dorsal hump reduction and dorsal augmentation		X				X	X	1
different osteotomy techniques including placement of osteotomies		X				X	X	1
techniques of endonasal and open approaches, including appropriate selection of surgical technique,		X				X	X	1
management of the alar cartilages and septum including resection, dome suturing and cartilage grafting techniques		X				X	X	1
endonasal and open approaches to rhinoplasty		X				X	X	1
techniques for nasal tip adjustment including resection, suturing, control of projection		X				X	X	1
management of septal trauma		X				X	X	1
<b>Otoplasty</b>								
appropriate age-related considerations in respect of timing of otoplasty. cartilage maturation		X				X	X	1
non-surgical management including neonatal moulding techniques		X				X	X	1
anaesthesia including use of local anaesthesia and appropriate infiltration/blocks		X				X	X	1
classification of prominent ears and definitions of cup ear, lop ear and Stahl’s deformity		X				X	X	1
surgical techniques for prominent ear correction including cartilage scoring e.g. Chongchet and suture-only techniques e.g. modified Mustardé		X				X	X	1
various dressing techniques with their relative merits		X				X	X	1
potential complications of prominent ear correction with risk factors for the same, including infection and necrosis of cartilage and skin		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
<b>Rhinoplasty</b>								
complications of rhinoplasty surgery including functional complications		X				X	X	1
secondary rhinoplasty techniques with indications for same		X					X	1
<b>Otoplasty</b>								
the reconstructive techniques available for treatment of significant necrosis or deformity following prominent ear correction		X					X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
<b>Rhinoplasty</b>								
arrange appropriate views for clinical photographic record		X					X	1
elicit focussed history in respect of the rhinoplasty patient	X						X	3,1
examine patient with reference to the nose including preoperative analysis of appearance and function	X						X	1
recognise the need for psychological assessment and identifies dysmorphophobia	X						X	1
<b>Otoplasty</b>								
clinically assess the patient with reference to the external ear and demonstrates appropriate communication when dealing with the paediatric patients	X						X	1
arrange appropriate views for clinical photographic record		X					X	1
take consent for primary otoplasty modifying communication when dealing with paediatric patient		X		X			X	3,1
recognise the need for psychological assessment and identifies dysmorphophobia							X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
<b>Rhinoplasty</b>								
clinically assess and analyse nasal defects including issues of balance and proportion	X	X					X	1
make a surgical plan for primary rhinoplasty using skills of analysis and judgement		X					X	1
counsel and consent patient for rhinoplasty surgery		X					X	3,1
recognise and counsel the unrealistic patient	X	X					X	3,1
explain to patient when rhinoplasty not in best interests of patient		X					X	3,1
<b>Otoplasty</b>								
clinically assess and analyse ear deformities including issues of symmetry and proportion	X	X					X	1
make a surgical plan for primary otoplasty using skills of analysis and judgement		X					X	1
counsel and consent patient for otoplasty surgery		X					X	3,1
recognise and counsel the unrealistic patient	X	X					X	3,1
explain to patient when otoplasty not in best interests of patient		X					X	3,1
<b>ADVANCED</b>								
Should demonstrate ability to:								
<b>Rhinoplasty</b>								
examine the patient with reference to the nose including preoperative analysis of appearance and function	X	X					X	1
deal with disappointment and postoperative dissatisfaction		X					X	3,1
make a surgical plan for secondary using skills of analysis and judgement,	X	X					X	1
counsel and consent patient needing secondary rhinoplasty surgery		X					X	3,1
recognise and counsel the unrealistic patient	X	X					X	3,1
explain to patient when rhinoplasty not in best interests of patient		X					X	3,1
<b>Otoplasty</b>								
deal with postoperative complications		X					X	1
deal with disappointment and postoperative dissatisfaction		X					X	3,1
make a surgical plan for secondary otoplasty using skills of analysis and judgement		X					X	1
counsel and consent patient for secondary otoplasty surgery		X					X	3,1
recognise and counsel the unrealistic patient	X	X					X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
<b>Rhinoplasty</b>								
application of internal and external nasal splints				X			X	1
drainage of septal haematoma				X			X	1

harvesting cartilage graft from ear and costochondral junction				X			X	1
nasal packing for bleeding				X			X	1
infiltrating nose with local anaesthetic and administer topical agents such as cocaine				X			X	1
osteotomies of nasal bones (various patterns)				X			X	1
<b>Otoplasty</b>								
infiltration of ears with local anaesthesia including greater auricular nerve blocks				X			X	1
application of prominent ear head dressing				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
<b>Rhinoplasty</b>								
closed approach to the septum with or without concomitant rhinoplasty				X			X	1
submucous resection of spurs				X			X	1
approach to the septum during open rhinoplasty				X			X	1
enlargement of septal perforation to reduce symptoms				X			X	1
cartilage graft harvest from nasal septum				X			X	1
adjustment of nasal dorsum including dorsal hump, reduction and dorsal augmentation				X			X	1
<b>Otoplasty</b>								
primary otoplasty with cartilage-scoring techniques				X			X	1
primary otoplasty with suture-only techniques				X			X	1
management of complications including haemorrhage, infection and necrosis of skin and cartilage				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
<b>Rhinoplasty</b>								
harvesting calvarial bone graft				X			X	1
septoplasty surgery including scoring and SMR techniques				X			X	1
septoplasty with or without cartilage grafting				X			X	1
management of complications including haemorrhage				X			X	1
secondary procedures to correct unsatisfactory results				X			X	1
closure of septal perforation				X			X	1
reconstruction of septum for nasal support				X			X	1
<b>Otoplasty</b>								
secondary procedures to correct unsatisfactory results including ear reconstruction techniques (see Ear Reconstruction Module)				X			X	1
techniques to correct other deformities such as cup ear, lop ear and Stahl's deformity				X			X	1

Rejuvenation/restoration of the trunk, body contouring, liposuction & fat grafting	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the assessment, planning correction and management of all aspects of body lifting and contouring								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of the skin and subcutis		X				X	X	1
patterns and organisation of the blood and nerve supply of the relevant regions of the skin		X				X	X	1
pattern of relaxed skin tension lines over the whole body		X				X	X	1
pathogenesis of thromboembolic disease, and the prophylaxis and management of these disorders		X				X	X	1
selection of appropriate prophylactic antibiotics		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
principles of bariatric surgery		X				X	X	1
metabolic consequences of bariatric surgery		X				X	X	1
pathogenesis, effects and management of tissue necrosis		X				X	X	1
appropriate placement of incisions for best aesthetic outcome		X					X	1
complications of skin-tailoring surgery		X					X	1
principles of liposuction and know of the different devices and their relative risks and benefits		X					X	1
effects of postoperative changes in body weight and pregnancy in this group of patients		X					X	1
pathology and principles of fat grafting		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
psychological condition of dysmorphophobia		X				X	X	1
condition of monosymptomatic hyperchondriacal psychosis		X					X	1
psychosexual impacts of body image disorder		X					X	1
patterns of acquired skin excess		X					X	1
syndromic abnormalities of skin laxity		X				X	X	1
forms of lipodystrophy, its patterns and presentations		X				X	X	1
specific complications of the various techniques of liposuction		X				X	X	1
techniques, donor sites and morbidity of fat grafting		X				X	X	1
the developing research into trophic/non-volumetric effects of fat grafts		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assess and deliver non-operative management of the acute surgical patient		X					X	1
take history to include features relevant to the assessment and management of body contour problems	X	X					X	1
examine the patient with reference to patterns of skin excess and laxity to include assessment and documentation of symptomatically unpleasing body contours	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
undertake clinical assessment for the perceived deformities covered in this module	X	X					X	1
translate presenting complaints into an appropriate plan for potential intervention		X					X	1
recognise the patient seeking treatment of obesity by body contouring		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
make a surgical plan for the individual patient in respect of conditions covered in this module using skills of analysis and judgement		X					X	1
assess the psychological suitability for body contouring surgery and appropriately refers for psychological advice as necessary		X					X	3,1

perform risk-benefit analysis of non-pathological based surgery		X					X	1
counsel and consent a patient for an episode of body contouring surgery		X					X	3,1
communicate the range of secondary effects of a given operation and suggest adjuvant procedures or alternative techniques		X					X	3,1
accurately assess local volume excess and translate that into a plan for liposuction	X	X					X	1
recognise lipodystrophies	X	X					X	1
recognise local fat deficiencies which will benefit from fat grafting	X	X					X	1
recognise and counsel the unrealistic patient	X	X					X	3,1
explain to patient when body contouring surgery not in best interests of patient		X					X	3,1
deal with disappointment and postoperative dissatisfaction		X					X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to undertake:								
wound management and dressing care				X			X	1
management of the necrotic wound and its defect				X			X	1
range of wound closure techniques				X			X	1
application of closed suction drainage				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
various patterns of abdominoplasty				X			X	1
correction of lax abdominal musculature				X			X	1
regional liposuction				X			X	1
scar revision including management of the ‘dogear’				X			X	1
fat graft harvest and preparation of fat grafts				X			X	1
undertakes local lipofilling with fat graft				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
modified abdominoplasty in the presence of unfavourable abdominal scarring				X			X	1
brachioplasty				X			X	1
BELT/body lift				X			X	1
buttock lift				X			X	1
thigh lift				X			X	1
liposuction of the arms or distal to the mid thigh, major circumferential liposuction				X			X	1
complex combination procedures				X			X	1
major staged fat graft for general contour restoration				X			X	1
secondary contouring procedures to correct unsatisfactory results				X			X	1

Non-Surgical rejuvenation	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the management of the aesthetic patient using non-surgical enhancement techniques								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy and physiology of skin including classification of skin types		X				X	X	1
normal ageing changes of skin including changes related to sun exposure		X				X	X	1
range of products and non-surgical techniques available for non-surgical rejuvenation		X				X	X	1
the role of these techniques, the indications for use as sole techniques and as adjuncts to other surgical procedures		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
specific patterns of ageing in different parts of the body with emphasis on face, neck and hands		X				X	X	1
biology of scarring, pigmentation changes, and their modulation		X				X	X	1
factors and conditions that may cause premature ageing including smoking and substance abuse		X				X	X	1
mechanism of action, effects and duration of action of the products and techniques used for non-surgical rejuvenation. Specifically, the range of preparations of botulinum toxin, dose schedules and how to achieve complete and partial temporary paralysis of selected muscle groups		X				X	X	1
the various filler injection preparations on the market and the literature regarding outcomes of the same (permanent, semi-permanent and temporary fillers)		X				X	X	1
different types of lasers available for aesthetic enhancement, their potential applications, mechanism of action, treatment schedules and useage		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
racial differences in skin type and the differences in response by skin type to the interventions described in this module		X				X	X	1
complications of use of non-surgical techniques including use of hydoxyquinones, botulinum toxin overuse, scarring from chemical peel, laser		X				X	X	1
regulatory framework for supply of relevant products on named patient basis. Know about the regulation of non-surgical rejuvenation including the legislation and safety requirements on the use of lasers.		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
elicit relevant features in patient history including the specific concerns of the patient	X	X					X	1
identify and enumerate the features of facial ageing and examines the skin and underlying tissues to demonstrate those features	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
identify evidence of previous treatments including active botulinum toxin, stigmata of laser resurfacing / dermabrasion / microdermabrasion		X					X	1
formulate management plan for the optimal enhancement of the facial aesthetic patient by non-surgical techniques		X					X	1
optimize the sequencing of the recommended treatments		X					X	1
undertake basic functional and psychological assessment of patient’s needs		X					X	1
show ability to take clinical photographs and catalogue within the legislative framework of the Data Protection Act, and offer appropriate explanation to patient regarding the safeguarding and use of their images		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
record the patient’s pretreatment status and progress using charts	X	X						1

formulates management plan for use of techniques in the patient who has previously undergone facial rejuvenation surgery including amelioration of the unsatisfactory result by non-surgical means		X					X	1
demonstrate planning and prescription of dermatological formulations in the form of skin care regimen for skin stimulation and skin lightening (tretinoin based / glycolic acid based)		X					X	1
modify the original prescription of dermatological formulations based on patient response		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
injection techniques to the facial area				X			X	1
steroid injection for hypertrophic or keloidal scar				X			X	1
filler injections for facial rhytids or small depressed scars				X			X	1
<b>INTERMEDIATE</b>								
Should be able to administer:								
botulinum toxin injections to glabella, forehead, periorbital, perioral and cervical areas for targeted muscle paralysis				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
laser resurfacing treatment for skin resurfacing including fractionated CO2, erbium, NdYAG (hair removal)				X			X	1
chemical peel for facial rejuvenation using trichloroacetic acid / glycolic acid				X			X	1
micropigmentation techniques for aesthetic enhancement				X			X	1
microneedling for refinement of mature scar				X			X	1

Surgery of the Breast	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis, aesthetic assessment and safe management of all deformities and conformations of the breast, developmental and acquired, pathological and physiological								
Acquire proficiency in all aspects of breast reconstruction and subsequent revisional procedures								
Acquire facility in the psychological assessment of patients presenting for breast surgery								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
applied and surgical anatomy of the breast, its blood, nerve supply and function		X				X	X	1
development of the breast and congenital deformity and variations of breast form and associated structures		X				X	X	1
hormonal control of the breast and its pathology, when deranged		X				X	X	1
breast physiology in pregnancy and lactation		X				X	X	1
benign pathologies of the breast		X				X	X	1
presentation, clinical features of breast cancer, its staging, prognosis and management pathways		X				X	X	1
effect of ionizing radiation on the breast and implants		X				X	X	1
planning incisions on the breast							X	1
closure and management of breast wounds							X	1
self-perception and self-consciousness in relation to breast conformation and proportion including the social and sexual dimensions							X	1
pathology of deranged self-image							X	1
<b>INTERMEDIATE</b>								
Should be able to demonstrate knowledge of:								
content, structure, physical and biological properties of breast implants		X				X	X	1
spectrum of implants available and their applications		X				X	X	1
design, principles and applications of tissue expanders		X				X	X	1
nature, physiology and behaviour of implant capsules		X				X	X	1
management of capsular contractures		X				X	X	1
biology, implications, avoidance of and management of implant infection		X				X	X	1
various designs and approaches to breast augmentation and their applications		X					X	1
the issues surrounding breast size and its assessment		X					X	1
complications of breast augmentation and their management		X					X	1
various designs and patterns of breast reduction and mastopexy							X	1
complications and management of breast reduction/remodelling							X	1
presentation, management and complications of gynaecomastia							X	1
<b>ADVANCED</b>								
Should be able to demonstrate knowledge of:								
assessment of envelope and volume in relation to breast asymmetry, both developmental and acquired		X					X	1
classification and management pathways of the tuberous breast		X				X	X	1
management pathways and choices in breast asymmetry		X					X	1
impact of breast reconstruction choices on symmetry		X					X	1
effect of time, ageing and pregnancy on breast asymmetry correction		X					X	1
various techniques of breast reconstruction, their applications, design and planning		X					X	1
complications of breast reconstruction							X	1
techniques for salvage of failed breast surgery							X	1
techniques for nipple reconstruction, including considerations of sequence and timing							X	1
features of dysmorphophobia							X	1
psychosexual dimension in aesthetic breast surgery							X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assess and undertake non-operative of the management of the acute surgical patient		X					X	1
take a targeted breast history	X	X					X	1
perform patient examination including breast examination with reference to aesthetic considerations	X	X					X	1
<b>INTERMEDIATE</b>								
Demonstrate knowledge of the management algorithms for the procedures covered in this section including investigations		X				X	X	1
<b>ADVANCED</b>								
Should be able to:								
demonstrate skills of analysis and diagnostic synthesis, judgement, surgical planning		X					X	1
assess and accurately record aesthetic concerns about the breast		X					X	1
formulate management plans in relation to aesthetic interventions		X					X	1
clearly explain, consent and counsel potential patients for aesthetic breast surgery		X					X	1
assess the psychological suitability for aesthetic breast surgery and appropriately refer for expert psychological advice as necessary		X					X	1
undertake risk benefit analysis of non-pathological based surgery		X					X	1
deal with disappointment and postoperative dissatisfaction		X					X	3,1

<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:		X					X	1
planning, execution and closing incisions on the breast with reference to aesthetic principles and sub units		X					X	1
designing and conduction of excision of skin lesions of the breast		X					X	1
undertaking an aesthetic approach to removal of benign lesions of the breast		X					X	1
scar revision in aesthetic breast surgery		X					X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
correction of the inverted nipple (various techniques)				X			X	1
bilateral breast augmentation by various routes, in various planes				X			X	1
Wise pattern bilateral breast reduction				X			X	1
vertical pattern bilateral breast reduction				X			X	1
bilateral mastopexy of periareolar, vertical and Wise patterns				X			X	1
excision of gynaecomastia, incorporating various forms of liposuction as appropriate				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
correction of the spectrum of nipple deformities				X			X	1
unilateral or differential breast augmentation to attain symmetry				X			X	1
unilateral or asymmetric breast reduction in pattern or volume to attain symmetry				X			X	1
synchronous mastopexy and breast augmentation in several patterns				X			X	1
correction of tuberous breast by combinations of mastopexy, augmentation or tissue expansion				X			X	1
unilateral or differential mastopexy in pattern or extent to attain symmetry				X			X	1
revision procedures following previous aesthetic surgery of the breast				X			X	1
aesthetic surgery of the breast as above in patients with previous breast cancer or irradiation				X			X	1
fat grafting for minor deformities of the breast				X			X	1

<b>Burns classification, primary management and transfer</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the initial management of patients with burns in the emergency department and their transfer to an appropriate burns facility/unit/centre								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to describe in detail the knowledge required to manage the acutely unwell adult and child, and the emergency management of acute burns								
Should demonstrate knowledge of:								
anatomy of the body surface, physiology, pathophysiology of burn injury		X				X	X	1
factors influencing burn healing		X				X	X	1
blood supply of skin		X				X	X	1
the timing and rationale for antibiotic use		X				X	X	1
timing of initial surgery		X				X	X	1
appropriate pre-operative investigations		X				X	X	1
classification of burn injury		X				X	X	1
resuscitation options		X				X	X	1
importance of specialist centres, MDT and interdisciplinary communication, especially with anaesthetic and paediatric colleagues		X					X	1
the role of other members of team including microbiologists, physiotherapy, occupational therapy		X					X	1
paediatric fluid regimes		X				X	X	1
features and management of toxic shock syndrome		X				X	X	1
an overview of non-accidental injury		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
differing roles of burn facilities, units and centres and		X					X	1
integration with Major Trauma Centres		X					X	1
pathophysiology of burns and their classification		X				X	X	1
management of specific injuries e.g. inhalation, chemical and electrical burns		X				X	X	1
non-accidental injury		X					X	1
various transfer options available for the burn patient		X					X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
management of the multiply-injured burn patient		X				X	X	1
controversies and issues arising as a result of a decision not to resuscitate		X					X	1
other protection issues		X					X	1
the impact of disfigurement, the consequences of an altered appearance, what it involves psychologically and socially, and the impact of an individual’s body image on their life and that of their family		X					X	1
the process by which an individual can successfully adjust to disfigurement and explain how the multidisciplinary team can assist with that process		X					X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
elicit burn-related history	X	X					X	1
assess and plan the non-operative management of burn injury	X	X					X	1
recognise life-threatening injuries	X	X					X	1
perform examination to including assessment of severity (extent and depth) of injury	X	X					X	1
assess vascular status of limb	X	X					X	1
assess the presence of compartment syndrome	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
prepare a range of management options for the conditions covered in this module		X					X	1
work with other agencies in non-accidental injury		X					X	3,1
<b>ADVANCED</b>								
Should demonstrate skills of analysis and diagnostic synthesis, judgement, surgical planning relevant to the subjects specified in this module		X					X	1

TECHNICAL SKILLS AND PROCEDURES								
<b>BASIC</b>								
Should be able to perform:								
assessment of burn area and depth	X	X		X			X	1
adjunctive techniques for depth assessment		X		X		X	X	1
escharotomy and fasciotomy				X		X	X	1
application and change of burn dressings				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
Demonstrate ability to use epidermal substitutes				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
airway management including performing tracheostomy				X			X	1
stabilising associated injuries and bleeding				X			X	1

Burns resuscitation and critical care	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the initial resuscitation of a burn patient and ongoing critical care								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
options for airway management		X				X	X	1
pathophysiology of burn shock		X				X	X	1
resuscitation regimes		X				X	X	1
wound dressings		X				X	X	1
pathophysiology of inhalation injury		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
principles of early burn debridement		X				X	X	1
principles and management of burns and the relevance to subsequent soft tissue reconstruction		X				X	X	1
relevance of pharmacological interventions including antibiotics and inotropes		X				X	X	1
management of inhalation injury including bronchoscopy		X				X	X	1,3
metabolic response to the burn injury		X				X	X	1
palliative care in respect of the burn patient		X				X	X	1,3
PHDU practices		X				X	X	1,3
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
microbiology of burns		X				X	X	1
principles of ventilation		X				X	X	1
nutritional support		X				X	X	1
PICU practices		X				X	X	1,3
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assess burn injury	X						X	1
manage large burn wounds	X						X	1
apply temporary dressings e.g. negative pressure	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
manage more complex burns	X						X	1
resuscitate burns with TBSA <40%	X						X	1
explain the problems associated with the extremes of age and of polytrauma	X						X	1
prescribe appropriate antibiotics (antibiotic stewardship)	X					X	X	1
undertake nutritional management of burns patients	X				X	X	X	1,3
provide detailed advice on the treatment pathway within the context of the relevant MDT	X				X		X	1,3
<b>ADVANCED</b>								
Should demonstrate ability to								
recognise injuries that would benefit from primary amputation	X						X	1
manage the metabolic response	X					X	X	1
resuscitate burns with TBSA >40%	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
endotracheal intubation				X			X	1
appropriate pre-washing and prepping burn during dressing change				X			X	1
escharotomy and fasciotomy				X			X	1
application of a range of burns dressings e.g. Biobrane, Flamazine				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
elective tracheostomy				X			X	1
adequate debridement of injured soft tissues to achieve a stable wound approaching elective conditions (including fascial excision)				X			X	
planning of future soft tissue reconstruction				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
endotracheal intubation				X			X	1
bronchoscopy				X			X	1
basic ventilator management,				X			X	1
amputation of non-salvageable limbs				X			X	1

Burns early surgery	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquires competence in the planning and execution of appropriate early surgery in burns								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of skin		X				X	X	1

classification of burn injury by zones		X				X	X	1
benefits and disadvantages of both early excision and conservative management		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
options available for early surgery		X				X	X	1
requirements of special sites		X				X	X	1
principles of management of more complex injuries, including polytrauma		X			X	X	X	1,3
planning and prioritising treatment within an MDT setting		X			X	X	X	1,3
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
management of more complex injuries, and polytrauma		X			X	X	X	1.3
surgical management of the burn		X				X	X	1
principles and use of dermal and epidermal substitutes		X				X	X	1
principles of cell culture		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assesses burn injuries and demonstrates recognition of injury patterns	X	X					X	1
use simple management techniques including use of appropriate dressings	X	X					X	1
prescribe appropriate antibiotics,	X	X					X	1
plan burn excision and grafting	X	X					X	1
use of epidermal substitutes such as Biobrane	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
formulate management algorithms for the common patterns of burn injury	X	X					X	1
plan total and staged burn excision and grafting	X	X					X	1
apply psychological assessment tools for evaluation of psychological needs (patient questionnaires)		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to								
formulate management algorithms for complex burn injuries,	X	X					X	1
arrange patient-centered care with patient as partner in the process, providing realistic information and guiding patient decision-making regarding choices available and timing of those treatments,		X					X	1
manage and lead the multi-disciplinary teams in respect of provision of psycho-social care		X					X	1,3
be able to arrange the care pathway that supports an individual to successfully adjust to disfigurement through giving the individual and family specific life-skills. These include the patient being provided with information about their condition and its treatment, developing a positive outlook/belief system, learning to cope with their feelings, exchanging experiences with others who've "been there" and social skills training to manage other people's reactions.		X					X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
dressings care				X			X	1
skin grafts of small to moderate areas				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
skin grafts of large areas				X			X	1
plan and raise flaps where grafts are not appropriate				X			X	1
early excision of paediatric burns to prevent systemic upset				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
resurfacing procedures using temporary skin cover				X			X	1
resurfacing using skin substitutes				X			X	1
limb amputations				X			X	1

<b>Burns late surgery</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in later burn management including the planning and execution of reconstructive surgery								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of skin and soft tissues		X				X	X	1
pathophysiology of hypertrophic scars and keloids		X				X	X	1
principles of scar management		X				X	X	1
effect of growth on burn scars		X				X	X	1
use of grafts and local flaps		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
indications for use of skin substitutes, distant flaps and free flaps		X				X	X	1
stages of bereavement associated with loss of body image and the clinical and psychological supports that can be put in place to assist the patient cope with that loss		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
principles of management of more complex injuries		X				X	X	1
surgical options for late reconstruction		X				X	X	1
novel therapies.		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess burn scars and contractures demonstrating recognition of injury patterns	X	X					X	1
use simple management techniques including use of splints and pressure garments	X	X					X	1
plan release of burn scars using grafting and local flaps	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
formulate management algorithms for the common patterns of burn scarring	X	X					X	1
plan for the use of skin substitutes, distant flaps and free flaps	X	X					X	1

<b>ADVANCED</b>								
Should demonstrate ability to:								
describe detailed management algorithms for complex burn injuries	X	X					X	1
show understanding of the complexities of burn injury reconstruction in patients with polytrauma and significant co-morbidities	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform burn scar grafting and local flaps including the Z-plasty and its variations				X			X	1
<b>INTERMEDIATE</b>							X	1
Should be able to use skin substitutes and distant flaps of small and medium areas				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
resurfacing with skin substitutes, distant flaps and free flaps of medium and large areas				X			X	1
late major amputations				X			X	1

<b>Burns infection and other complications</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of burn infections and other complications								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of the microbiology of burns		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
metabolic derangement occurring in the burn patient		X				X	X	1
concept and practice of antibiotic stewardship		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of								
antibiotic and antiseptic regimens and their rationale		X				X	X	1
controversies regarding metabolic management		X				X	X	1
multi-organ effects and systemic disturbance caused by burns		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to undertake wound assessment	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability for the clinical assessment and management algorithms for the infections and other burn complications	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to								
clinically assess the unstable complex burn patient	X						X	1
make decisions on appropriate management issues	X						X	1
interpret the range of investigations in the unstable complex burn patient to formulate management plans	X						X	1
manage the iatrogenic injury	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to undertake surgical management of wound infection				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform radical excision of burn wound for infection				X			X	1
<b>ADVANCED</b>								
Should be able to perform amputation and other life-saving surgery in the case of infection and other complications				X			X	1

<b>Paediatric burns</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of paediatric burns and the recognition of the need for multidisciplinary management								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
The knowledge requirements are as per modules 1-5, in the context of the paediatric patient		X				X	X	1
Should demonstrate knowledge as defined by PALS/APLS		X				X	X	1
paediatric fluid regimens		X				X	X	1
toxic shock syndrome		X				X	X	1
non-accidental injury		X				X	X	1
<b>INTERMEDIATE</b>								
As per modules 1-5, in the context of the paediatric patient		X				X	X	1
Demonstrates knowledge of PHDU practices		X				X	X	1
<b>ADVANCED</b>								
As per modules 1-5, in the context of the paediatric patient.		X				X	X	1
Should demonstrate knowledge		X				X	X	1
other child protection issues		X				X	X	1
PICU practices		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
As per modules 1-5, in the context of the paediatric patient	X	X					X	1
Works with other agencies in the event of non-accidental injury	X	X					X	1
<b>INTERMEDIATE</b>								
As per modules 1-5, in the context of the paediatric patient	X	X					X	1
Works with the paediatric elements of the MDT	X	X					X	1
Applies the law in respect of non-accidental injury and communicates with appropriate parties	X	X					X	1,3
<b>ADVANCED</b>								
As per modules 1-5, in the context of the paediatric patient	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
As per modules 1-5, in the context of the paediatric patient				X			X	1
Should be able to apply Biobrane and similar dressings				X			X	1
<b>INTERMEDIATE</b>								
As per modules 1-5, in the context of the paediatric patient				X			X	1
Should be able to perform early excision of burns to prevent systemic upset				X			X	1
<b>ADVANCED</b>								
As per modules 1-5, in the context of the paediatric patient				X			X	1

Chest wall reconstruction	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of congenital and acquired defects of the chest wall								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy and physiology of the chest wall and respiratory mechanics		X				X	X	1
common cardiothoracic procedures, their access (e.g. median sternotomy, lateral thoracotomy) and potential complications (e.g. mediastinitis, empyema, bronchopleural fistula)		X				X	X	1
indications for skeletal reconstruction in chest wall defects		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
congenital chest wall deformities e.g. Poland's syndrome, pectus carinatum and pectus excavatum		X				X	X	1
local and regional flaps utilised in chest wall reconstruction and their anatomy		X				X	X	1
pathophysiology of median sternotomy breakdown and a classification for median sternotomy wounds		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
potential impact of chest wall defects on respiratory physiology		X				X	X	1
strategies for management of noncollapsible chest cavity dead space and bronchopleural fistula		X				X	X	1
prosthetic materials used in chest wall reconstruction		X				X	X	1
the effects of radiation on the chest wall and the pathophysiology of osteoradionecrosis		X				X	X	1
omental flap in chest wall reconstruction		X				X	X	1
free tissue transfer in chest wall reconstruction		X				X	X	1
techniques for repair of congenital pectus deformities		X				X	X	1
techniques for salvage of failed chest reconstruction		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
communicate and plan with other specialties to organise patient care	X	X					X	1
undertake clinical assessment of a median sternotomy wound	X	X					X	1
undertake clinical assessment of a chest wall soft tissue tumour	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
formulate a holistic management plan for an individual with a chest wall defect	X	X					X	1
undertake clinical assessment of a congenital chest wall deformity	X	X					X	1
consent a patient for chest wall reconstruction, discussing advantages and disadvantages of reconstructive options and detailing possible complications	X	X					X	1
manage complications of chest wall reconstructive surgery appropriately	X	X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
clinically assess complex reconstructive cases, including salvage reconstruction, and formulate an appropriate multi-disciplinary management plan	X	X					X	1
formulate a care pathway for an individual with a congenital chest wall deformity, including provision of psycho-social care as well as a holistic management plan that considers the aesthetic as well as functional consequences of the condition and subsequent treatment	X	X					X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to:								
apply a negative pressure dressing to a chest wall defect				X			X	1
perform skin grafting to a chest wall defect				X			X	1
perform a range of local skin flaps for a chest wall defect				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
primary debridement of a chest wall wound				X			X	1
pectoralis major and rectus abdominis pedicled muscle flaps for median sternotomy coverage				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
fasciocutaneous / musculocutaneous / muscle-only flap reconstruction for thoracic defects (e.g. serratus anterior, trapezius, latissimus dorsi or parascapular flaps)				X			X	1
reconstruction of defect with omental flap (in concert with general surgery colleague)				X			X	1,3

Primary management of cleft lip and nose	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the management of the unrepaired cleft lip and nose deformity								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
surgical anatomy, pathological anatomy, embryology and basic genetics of facial clefting and associated anomalies		X				X	X	1
past and current and protocols for repair of cleft lip and palate		X				X	X	1
content of the Paediatric Intermediate Life Support Course or equivalent course as currently approved by the Resuscitation council of the UK, and ability to resuscitate a child		X				X	X	1
criteria that would constitute grounds for admission to Intensive Care Unit		X				X	X	1
issues of non-accidental injury and child protection. Know the referral pathways for protection of the ‘at-risk’ child		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
the different techniques for cleft lip and nose repair		X				X	X	1
timelines and sequence of operative procedures		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
history of cleft lip and nose repair, and the outcomes as well as the means of measurement of outcomes for cleft lip and nose repair		X				X	X	1
characteristic anatomical elements of the neonatal airway, and basis for tracheostomy in emergency circumstances where airway cannot be maintained mechanically		X				X	X	1
alternatives for timing of different sequences and operations for repair of the cleft lip and nose		X				X	X	

<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to								
take care of the pre and post-operative patient/child undergoing cleft surgery including assessment for anaesthetic risk factors, postoperative fluid management, antibiotic prescribing	X	X					X	1
manage a naso-pharyngeal airway both in the peri-operative environment, and post-operatively	X	X					X	1
take informed consent for the procedures covered in this module	X	X					X	1
use the operating microscope	X						X	1
present cases within the Cleft MDT	X	X					X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
counsel parents of new patients including those following ante-natal scan diagnosis	X	X					X	1
plan appropriate treatment schedule within the context of the cleft MDT	X	X					X	1,3
<b>ADVANCED</b>								
Should demonstrate ability to:								
formulate a management plan within the MDT as a fully integrated member of the team	X	X					X	1,3
communicate with patients/families	X	X					X	1
maintain and demonstrate the skills articulated in APLS/PALS	X	X					X	1
recognise signs of non-accidental injury, risk factors, and family pathology	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to mark up a cleft lip repair according to one of the currently accepted techniques				X			X	1
<b>INTERMEDIATE</b>								
Should be able to mark a cleft lip and nose repair. Should be able to perform some of the muscle dissection and elevation of a vomerine flap.				X			X	1
<b>ADVANCED</b>								
Should be able to repair the cleft lip and nose according to one of the currently accepted techniques, vary a standard marking plan for subtle differences in the types of cleft lip or palate, perform (in order) nasal dissection, repair of mucosa and muscle, repair of ala base, placement of sutures for nasal suspension, lip closure, use of lengthening flaps, vermilion flap and mucosal balancing				X			X	1

<b>Secondary repair of cleft lip and nose</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the management of the previously repaired cleft lip and nose deformity								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
surgical anatomy, pathological anatomy and physiology of the cleft nose		X				X	X	1
rhinoplasty techniques for reconstruction of cleft nasal deformity		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
facial morphology and aesthetics		X				X	X	1
basic cephalometric planning techniques		X				X	X	1
surgical approaches to the nose		X				X	X	1
rhinoplasty techniques relevant to cleft nose deformity		X				X	X	1
<b>ADVANCED</b>								
Should be able to demonstrate:								
detailed knowledge of soft tissue flap and composite graft techniques for contour and scar modification		X				X	X	1
understanding of muscle dissection methods and transposition to correct functional and aesthetic abnormalities		X				X	X	1
knowledge of cleft nasal defect to include familiarity with current literature on the same		X				X	X	1
detailed knowledge of elements of aesthetic rhinoplasty where applicable to cleft rhinoplasty		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to correctly elicit patients’ concerns and their perceptions of the conditions	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assessment lip and nose disability including alveolar fistula	X	X					X	1
Should demonstrate ability to:								
determine the optimum timing of surgery and decide on priorities for treatment	X	X					X	1
communicate with the MDT	X	X					X	1,3
know when to recruit help of a clinical psychologist	X	X					X	1,3
<b>ADVANCED</b>								
Should be able to demonstrate skill in formulating plan for surgical correction of secondary deformities of the cleft lip and nose within the context of the integrated (MDT) care of the patient	X	X					X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able perform:								
formulation of a design for correction of secondary deformities of the lip and nose				X			X	1
skin markings				X			X	1
dissection of the lip				X			X	1
closure of rhinoplasty incisions				X			X	1
management of the cleft airway				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
formulation of designs for correction of secondary deformities of the lip and nose				X			X	1
dissection and suture of lip, degloving of nose, and ala reduction				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
design and execute complete revision of complex cleft deformity, including total lip revision and more subtle deformities in later years				X			X	1
(in order) the previous elements specified and proceeding to hump reduction with rasp, management of the septum, infracture, application of splint				X			X	1
full cleft rhinoplasty				X			X	1

Primary repair of cleft palate	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Competence in the assessment, surgical management and aftercare of primary cleft palate								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy, embryology and basic genetic of facial clefting and associated anomalies (as for Module 1)		X				X	X	1
knowledge of sequencing of procedures for cleft palate repair		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
anatomical basis for surgical correction of palatal abnormalities		X				X	X	1
<b>ADVANCED</b>								
Should be able to explain:								
detailed mechanisms of speech production, along with implications of various genetic conditions on speech (including Stickler's, 22q11 deletion, and other common disorders		X				X	X	1
surgical procedures for correction cleft palalte with historic and common internationally-performed variations		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take informed consent for the procedures specified in this module	X						X	1
care skilfully for the pre and post-operative cleft palate patient/child	X						X	1
use the operating microscope	X						X	1
manage a naso-pharyngeal airway	X						X	1
<b>INTERMEDIATE</b>								
Should be able to demonstrate proficiency in managing the child undergoing cleft palate repair of average complexity	X						X	1
<b>ADVANCED</b>								
Should be able to demonstrate proficiency to manage a child undergoing complex cleft palate repair including cases with associated disorders (syndromic cases), and cases with wide defects which generate significant postoperative potential airway and wound healing problems	X						X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
marking up a cleft palate repair				X			X	1
(in order) closure of oral layer, elevation of the oral layer in patients with isolated cleft palate				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
(in order) elevation of the oral layer in patients with unilateral and bilateral cleft lip and palate, closure of the nasal layer				X			X	1
suturing of the oral layer in patients with cleft lip and palate.				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
repair of the palate and associated involved structures according to one of the currently accepted techniques (complete within timely manner)				X			X	1
muscle dissection, and demonstrate the vascular pedicle in repeated fashion				X			X	1
adaptations of the standard procedure for anatomical variation				X			X	1

  

Secondary speech surgery	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
To develop competence in the management of speech disorders associated with cleft palate and related disorders								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
the surgical anatomy, pathological anatomy and physiology of palatal function and abnormalities after cleft closure, including the pathophysiology of velopharyngeal incompetence (VPI)		X				X	X	1
the feeding mechanisms and relationship of infant feeding patterns to later speech development		X				X	X	1
the physiology of the middle ear, Eustachian tube and causes of deafness in the cleft patient		X				X	X	1
the clinical and investigative tools for examining speech development		X				X	X	1
the place of surgical and orthodontic assistance to treatment of speech disorder		X				X	X	1
<b>INTERMEDIATE</b>								
Should be able to describe:								
the range of normal speech development mechanisms and how these are at risk in cleft disorders		X				X	X	1
the impact of chronic otitis media on speech skills at school entry		X				X	X	1
the techniques used by speech and language therapists inputting into cleft management		X				X	X	1
the operations available for the amelioration of speech disorders including VPI		X				X	X	1
<b>ADVANCED</b>								
Should be able to describe:								
the indications for investigation of speech disorder, methods and limitations		X				X	X	1
the radiation protection protocols linked to such investigations		X				X	X	1
adult communication problems related to previous cleft palate repair and previous surgery for VPI		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should have ability to:								
elicit speech disorders	X						X	1
liaise with Speech Therapists	X						X	1,3
<b>INTERMEDIATE</b>								
Should have ability to:								
interpret findings of nasendoscopy,	X						X	1
assess likelihood of patient co-operation with nasendoscopy,	X						X	1
formulate a treatment plan based on the nasendoscopy findings	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
interpret an audiogram and tympanometry study	X						X	1
describe the principles of brain stem evoked response audiometry	X						X	1
formulate an appropriate referral based on clinical history and audiogram	X						X	1

<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Not applicable								
<b>INTERMEDIATE</b>								
Should be able to perform:								
nasendoscopy in the diagnosis of speech disorder				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
skilful dissection of a previously repaired cleft palate as part of a correction for speech disorder				X			X	1
pharyngoplasty (various techniques)				X			X	1

<b>Dento-alveolar defect including alveolar bone grafting</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
To develop competence in the management of alveolar defects associated with cleft lip and palate								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
the evolution of secondary dentition		X				X	X	1
the clinical and investigative tools available to the orthodontist		X				X	X	1
the related investigations and the basis for treatment of the secondary dentition		X				X	X	1
the anatomy of various potential sites for cancellous bone graft harvesting		X				X	X	1
<b>INTERMEDIATE</b>								
Should be able to describe:								
options for orthodontic treatment		X				X	X	1
indications for pre-surgical orthodontic treatment		X				X	X	1
the role of Paediatric Dentists including the basics of oral and dental hygiene		X				X	X	1,3
the use of synthetic substitutes in dento-alveolar surgical practice		X				X	X	1
the methods of assessment of success of bone grafting		X				X	X	1
<b>ADVANCED</b>								
Should be able to describe:								
overview of surgical aspects of stomatological practice		X				X	X	1
principles of restorative dentistry, and role of such care within the holistic management of patients		X				X	X	1,3
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should be able to make clinical assessment of the secondary dentition	X						X	
Should demonstrate ability to function and communicate within the framework of the Cleft MDT	X				X		X	1,3
<b>INTERMEDIATE</b>								
Should be able to:								
liaise appropriately with Orthodontic colleagues	X				X		X	1,3
liaise with and refer to Paediatric and Restorative Dental colleagues	X				X		X	1,3
<b>ADVANCED</b>								
Should be able to devise complete management plan for the preoperative and postoperative care of the patient undergoing alveolar bone grafting	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform harvest of iliac bone graft				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform low scar access when harvesting iliac bone graft				X			X	1
<b>ADVANCED</b>								
Should be able to perform closure of an alveolar fistula with appropriate technique				X			X	1

<b>Orthognathic surgery / Working with the Cleft MDT</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
To acquire knowledge of the management of residual cleft deformity in adults including principles of orthognathics and related assessment / investigation								
To develop skills in participation in the Cleft MDT, including working with allied disciplines as a team member and team leader.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
the range of residual deformities that pertain at the cessation of facial growth		X				X	X	1
the nasal septal deformities associated with clefting		X				X	X	1
the self-image problems extending into adult life		X				X	X	1
National guidelines for the diagnosis, treatment and follow up of cleft patients		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate understanding of:								
Principals of orthognathics including distraction osteogenesis		X				X	X	1
the role of the orthodontist in cleft care		X				X	X	1
the surgical principles of orthognathic appliances and their use in practice		X				X	X	1
NICE Improving Outcomes guidance and Peer review		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
the surgical anatomy and pathological anatomy of the residual deformities of facial growth		X				X	X	1
the principal methods of use in orthognathics including distraction osteogenesis		X				X	X	1
methodology for research and audit with respect to cleft practice in local, national and international settings		X				X	X	1
Should demonstrate knowledge of:								
impact of disfigurement and altered appearance, what it involves psychologically and socially, and the impact of an individuals’ body image on their life and that of their family		X				X	X	1
the processes by which an individual can successfully adjust to disfigurement and explain how the multidisciplinary team can assist with that process		X				X	X	1,3
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assemble appropriate professionals to solve adults, concerns	X						X	1
communicate and refer within the specialist MDT	X				X		X	1,3

<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
undertake orthodontic measurement of mid-facial growth	X						X	1
develop and record management plan for the patient and discuss rationale for management of common scenarios with patients and colleagues	X						X	1,3
analyse and develop diagnostic and surgical planning within the context of an MDT	X				X		X	1,3
lead clinical discussion of cleft-related disorders for neonate, infant, pre-school, and later ages following consultations	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
undertake appropriate referral and liaison with Orthodontists	X				X		X	1,3
to plan a program of orthognathic surgery including distraction osteogenesis	X						X	1,3
to discuss complex treatment scenarios with patients including discussion of all options, advantages and disadvantages and take informed consent	X						X	1,3
to lead whole clinic process for an entire MDT session	X				X		X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Not applicable								
<b>INTERMEDIATE</b>								
Not applicable								
<b>ADVANCED</b>								
Not applicable								

<b>Complex wound</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Overall competence in the diagnosis and management of the complex wound excluding burn injury								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to describe:								
the principles of management of non-burn conditions managed by the burn team (including cold injuries, TENS and purpura fulminans)		X				X	X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of detailed management of non-burn conditions managed by the burn team (including cold injuries, TENS and purpura fulminans)		X				X	X	1,3
<b>ADVANCED</b>								
Should be able to discuss the controversies regarding the management of non-burn conditions managed by the burn team		X				X	X	1,3
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate proficiency in:								
clinical assessment of the non-burn injury	X					X	X	1
liaison with other specialities	X					X	X	1,3
working and communicating within the relevant multidisciplinary team (MDT)	X					X	X	1,3
<b>INTERMEDIATE</b>								
Should be able to:								
devise management plans and treatment algorithms for the conditions covered in this module	X					X	X	1
apply psychological assessment tools for evaluation of psychological needs (patient questionnaires).	X					X	X	1
<b>ADVANCED</b>								
Should be able to:								
deploy skills of analysis and diagnostic synthesis, judgement, and surgical planning to the complex wound patient	X					X	X	1
advise regarding timing of reconstruction and effect of growth on reconstructive surgery in paediatric cases,	X					X	X	1
provide detailed advice on the treatment pathway, including interpretation of special investigations, within the context of the relevant MDT,	X					X	X	1,3
demonstrate skills needed to arrange patient-centered care with patient as partner in the process, providing realistic information and guiding patient decision-making regarding choices available and timing of those treatments.	X					X	X	1
manage and lead the multi-disciplinary teams in respect of provision of psycho-social care, to arrange the care pathway that supports an individual to successfully adjust to disfigurement through giving the individual and family specific life-skills. These include the patient being provided with information about their condition and its treatment, developing a positive outlook/belief system, learning to cope with their feelings, exchanging experiences with others who’ve “been there” and social skills training to manage other people's reactions.	X					X	X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to stabilise the complex wound patient for safe transfer to specialist centre				X			X	1,3
Should be able to apply negative pressure dressing				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform primary debridement and application of temporary wound dressings in theatre				X			X	1,3
<b>ADVANCED</b>								
Should be able to								
debride complex wound				X			X	1

<b>Craniofacial General Principles</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Principles of the MDT and the ‘Craniofacial Assessment’								
e.g. Psychology of facial difference and speech and language assessment								
Anatomy & Embryology of the craniofacial complex								
Cephalometrics and facial analysis								
Trauma								
Emergency procedures								
Surgical approaches to the craniofacial complex								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
embryology of the pharyngeal arch development and syndromes arising from developmental pathology, and should be to demonstrate proficiency in the descriptive anatomy of head and neck		X				X	X	1
multidisciplinary assessment of ‘The Craniofacial Patient’ (parameters including visual, audiological, airway, speech, feeding, psychological and neurological)		X			X	X	X	1,3

content of the Paediatric Intermediate Life Support Course or equivalent course as currently approved by the Resuscitation council of the UK. Know how to resuscitate a child.		X			X	X	X	1,3
criteria that would constitute grounds for admission to Intensive Care Unit		X				X	X	1
issues of non-accidental injury and child protection, and the referral pathways for protection of the ‘at-risk’ child		X			X	X	X	1,3
emergency diagnosis of elevated intracranial pressure (ICP) and/or intracranial haemorrhage		X				X	X	1
Should be able to describe the management of extravasation injuries		X				X	X	1
<b>INTERMEDIATE</b>								
Should be able to demonstrate knowledge of:								
technique of intermaxillary fixation		X				X	X	1
cephalometrics: skeletal and dental occlusal relationships, SNA angle, SNB angle, facial reference points		X				X	X	1
cephalometric characteristics of craniofacial syndromes e.g. Crouzon syndrome, Treacher Collins syndrome (TCS) and hemifacial microsomia (HFM), definition of anterior open bite, cross bites etc.		X				X	X	1
distraction osteogenesis: history and application: mandible, alveolus, midface, orbit and cranium		X				X	X	1
<b>ADVANCED</b>								
Should be able to demonstrate knowledge of:								
anatomy of surgical approaches to craniofacial skeleton and relevant local flaps (temporalis, superficial temporal etc)		X				X	X	1
facial analysis: choice of camera systems,CT, MRI and software analysis in surgical planning		X				X	X	1
Craniofacial Radiology – recognition of tumour and threats to neurological function		X				X	X	1
the multidisciplinary assessment of ‘The Craniofacial Patient’: specific tests – VEPs, sleep studies and psychological assessment scales		X				X	X	1,3
impact of disfigurement, the consequences of an altered appearance, what it involves psychologically and socially, and the impact of an individual’s body image on their life and that of their family		X				X	X	1,3
the processes by which an individual can successfully adjust to disfigurement, and how the multidisciplinary team can assist with that process		X				X	X	1,3
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
care for the pre and post-operative patient/child undergoing craniofacial surgery including assessment for anaesthetic risk factors, postoperative fluid management, antibiotic prescribing	X	X					X	1
manage the airway both in the peri-operative environment, and post-operatively	X	X					X	1
take informed consent for the procedures covered in this module	X	X					X	1
present cases within the Craniofacial MDT	X	X			X		X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
counsel parents of new patients including those following antenatal scan diagnosis for relevant syndromes	X	X					X	1
apply psychological assessment tools for evaluation of psychological needs (patient questionnaires)	X	X					X	1
plan appropriate treatment schedule within the context of the craniofacial MDT	X	X					X	1,3
<b>ADVANCED</b>								
Should demonstrate ability to:								
formulate a management plan within the MDT as a fully integrated member/leader of the team and be able to communicate with patients/families	X	X			X		X	1,3
manage and lead the multi-disciplinary teams in respect of provision of psycho-social care	X	X			X		X	1,3
arrange the care pathway that supports a child and his/her family to successfully adjust to disfigurement through giving the individual and family specific life-skills. These include, where appropriate, the patient being provided with information about their condition and its treatment, developing a positive outlook/belief system, learning to cope with their feelings, exchanging experiences with others who’ve “been there” and social skills training to manage other people’s reactions	X	X			X		X	1,3
maintain and demonstrate the skills articulated in APLS/PALS	X	X					X	1
recognise signs of non-accidental injury, risk factors, family pathology	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Trauma:								
Should be able perform tracheostomy (emergency and percutaneous) and nasal packing for epistaxis				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
intermaxillary fixation				X			X	1
emergency management of retrobulbar haemorrhage				X			X	1
emergency management of elevated ICP and/or intracranial haemorrhage				X			X	1
various surgical approaches to the craniofacial skeleton: coronal and upper and lower buccal sulcus incisions				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
Orthognathic surgery relating to craniofacial syndromes				X			X	1
How to perform a Le Fort I +/- distraction osteogenesis, the sagittal split osteotomy, bimaxillary surgery, segmental orthognathic surgery, palatal expansion and segmental alveolar transport				X			X	1
Distraction osteogenesis of the craniofacial skeleton				X			X	1
Indications compared to traditional techniques				X			X	1
Device selection and application of chosen distraction device at all levels of the craniofacial skeleton. Knowledge of outcome studies.				X			X	1
Implants and prostheses								
Choice of alloplast for inlays and onlays. Osseointegrated implant choice, sites and design in conjunction with maxillofacial prosthodontist.				X			X	1
Surgical approaches to the craniofacial skeleton: McCord lid swing, transconjunctival, transbleph, transcaruncular, Weber-Ferguson and open rhinoplasty, transbuccal. Levels of Craniofacial access.				X			X	1
Craniofacial aesthetic surgery				X			X	1
Endoscopic techniques, subperiosteal surgery, genioplasty, advanced rhinoplasty				X			X	1

<b>Craniosynostosis</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Management of single suture and syndromic craniosynostosis								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
surgical anatomy, pathological anatomy and pathophysiology of craniosynostosis		X				X	X	1
common phenotypes and head shapes		X				X	X	1
positional vs synostotic plagiocephaly: torticollis		X				X	X	1

<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
basic clinical genetics of craniosynostosis syndromes		X				X	X	1
recognition of different syndromic craniosynostoses (Apert, Crouzon)		X				X	X	1
strategies for the management of intracranial hypertension and its multifactorial influences		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate detailed knowledge of:								
protocols of surgical management (Multidisciplinary: ENT, Ophthalmology, Neurosurgery etc)		X				X	X	1
indications for intervention: crisis, urgent, elective, aesthetic – both functional and psychological		X				X	X	1
indications and applications of distraction osteogenesis		X				X	X	1
indications for FOR/Le Fort III, Monobloc and bipartition osteotomies, distraction vs bone graft techniques		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should be able to:								
explain to parents the challenges of these conditions at different stages of life from birth to adolescence	X						X	1
describe the impact on the family of the birth of a child with a craniofacial anomaly and provide or arrange support	X						X	1
<b>INTERMEDIATE</b>								
Should have ability to								
manage globe subluxation	X						X	1
manage the compromised airway	X						X	1
recognise elevated ICP	X						X	1
recognise complications of transcranial surgery	X						X	1
apply psychological assessment tools for evaluation of psychological needs (patient questionnaires)	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to								
formulate plan for surgical correction of problems arising in patients with craniosynostosis	X						X	
deploy the skills of the MDT appropriately	X				X		X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to:								
close a coronal incision				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
harvesting techniques for autologous grafts including iliac crest bone, rib, costochondral and cranial bone				X			X	1
canthopexies, canthoplasties and eyelid balance				X			X	1
coronal flaps				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
major segmental osteotomies and advancements of the craniofacial complex				X			X	1
distraction osteogenesi				X			X	1
cranioplasties				X			X	1
fronto-orbital surgery				X			X	1
frontofacial surgery				X			X	1

<b>Craniofacial tumours in adults and children</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the management of adults with transcranial tumours (orbital, nasal, frontofacial, skull base) including SCC, BCC, melanoma								
Acquire competence in the basic principles of management of children with transcranial tumours								
Acquire competence in the management of adults with transcranial tumours (orbital, nasal, frontofacial, skull base) including SCC, BCC, melanoma and olfactory neuroblastoma								
Acquire competence in the management of children with transcranial tumours (orbital, nasal, frontofacial, skull base) including orbitofacial NF, fibrous dysplasia / Cherubism /McCune Albright, teratomas, vascular lesions and anomalies, juvenile nasopharyngeal angiofibroma, haemangiomas, vascular malformations, dermoid cysts, nasal gliomas, ossifying fibromas, sarcomas including nerve and nerve sheath tumours								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to describe common adult tumours eg BCC, SCC, melanoma, and their pathology, natural history and treatment protocols		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
other adult tumours – eg neurofibromatosis, neuroblastoma with their pathology, natural history and treatment protocols		X				X	X	1
common paediatric tumours eg neurofibromatosis, fibrous dysplasia, teratomas and their pathology, natural history and treatment protocols		X				X	X	1
differences in clinical behaviours between adult and paediatric tumours		X				X	X	1
adjunctive techniques eg interventional radiology and IMRT and chemo-irradiation		X				X	X	1
complex craniofacial vascular anomalies and malformations		X				X	X	1
role of the surgeon in the MDT		X			X	X	X	1,3
role of palliation in adults and children		X				X	X	1
management of end of life		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
applied surgical anatomy, segmental resection and reconstruction (alloplastic, autologous, microsurgical), functional preservation, aesthetic techniques		X				X	X	1
rare transcranial tumours and related contemporary literature		X				X	X	1
management of the facial nerve in adult and paediatric tumours with indications for facial nerve sacrifice and rehabilitation		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should be able to present cases to the MDT	X	X					X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to diagnose, investigate the conditions covered in this module	X	X					X	1
Should demonstrate ability to counsel patients and deliver bad news concerning adult and paediatric patients	X	X					X	1

<b>ADVANCED</b>								
Should demonstrate ability to:								
formulate treatment plans for the conditions covered in this module	X	X					X	1
lead decision making in the MDT	X	X					X	1,3
co-ordinate the patient treatment pathway	X	X					X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform reconstructive techniques including grafts and local flaps				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
elevation ‘workhorse’ free flaps including latissimus dorsi and radial forearm flap (includes these exercises performed as surgical simulation)				X			X	1
manage Le Fort I down-fracture for skull base access				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
accessing craniofacial skeleton via various approaches (see module 1)				X			X	1
planning and resecting of craniofacial vascular lesions				X			X	1
various approaches to the orbit (tumours)				X			X	1
reconstruction with free perforator flaps or composite free tissue transfer				X			X	1
operating within a multidisciplinary team				X			X	1,3

<b>Craniofacial syndromes of tissue deficiency</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the recognition and principles of management of hemifacial microsomia,Treacher Collins syndrome, mandibular deficiencies - Pierre Robin, Romberg’s disease, morphoea, craniofacial clefts & encephalocoels, Binder's syndrome, holoprosencephaly, arrhinia								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of (with their aetiology, developmental pathology & embryology, natural history)		X				X	X	1
hemifacial microsomia (HFM)		X				X	X	1
Treacher Collins syndrome (TCS)		X				X	X	1
Romberg’s disease		X				X	X	1
Morphoea		X				X	X	1
Tessier’s classification of craniofacial clefts		X				X	X	1
classification of encephalocoels		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of								
principles of intervention (crisis, urgent, elective and aesthetic)		X				X	X	1
treatment protocols for mandibular deficiencies - Pierre Robin		X				X	X	1
impact of the tissue deficiency syndromes on the child and the family at different stages of maturity		X				X	X	1
use of the MDT in the ‘craniofacial assessment’		X			X	X	X	1,3
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
other tissue deficiency syndromes eg Craniofacial clefts & encephalocoels		X				X	X	1
Binder's syndrome		X				X	X	1
holoprosencephaly		X				X	X	1
arrhinia		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Not applicable								
<b>INTERMEDIATE</b>								
Should have ability to:								
manage the compromised airway	X	X					X	1
undertake ‘defensive’ surgical treatment planning (allowing for effect of growth on surgical results in children)	X	X					X	1
<b>ADVANCED</b>								
Should have ability to formulate treatment plans for secondary procedures for the conditions covered in this module	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform excision of accessory auricles				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
tissue expansion in the head and neck				X			X	1
tarsorrhaphy techniques				X			X	1
fat transfer				X			X	1
Le Fort I or Le Fort II advancements of maxilla				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
eyelid rebalancing and reconstruction,				X			X	1
mandibular distraction and reconstruction				X			X	1
ear reconstruction – autologous and osseointegrated implant				X			X	1
nasal reconstruction and rhinoplasty				X			X	1
orbital translocation				X			X	1
soft tissue free flaps eg adipofascial flaps				X			X	1

<b>Craniofacial overgrowth syndromes</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the management of hemifacial hypertrophy, facial infiltrating lipomatosis, tissue overgrowth secondary to vascular malformations (Beckwith Wiedemann Syndrome, proboscis)								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
hamartomas, teratomas, and dysplasias		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
planes of facial resuspension		X				X	X	1

differential diagnosis of overgrowth asymmetries		X				X	X	1
radiological diagnosis		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of								
techniques for facial nerve preservation		X				X	X	1
indications for surgery within the MDT setting		X				X	X	1,3
Should demonstrate knowledge of the planes of facial resuspension		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to manage patients with reference to:								
maintenance of vital functions including airway, feeding etc	X	X					X	1
preservation of oral, nasal, palpebral sphincters	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to undertake a clinical assessment of the craniofacial conditions covered in this module	X	X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to								
formulate a treatment plan for the conditions covered in this module	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Not applicable								
<b>INTERMEDIATE</b>								
Should be able to perform emergency procedures (see module 1)				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
resectional surgery in the absence of malignancy including segmental osteotomies of maxilla and mandible, functional wedge				X			X	1
resection of tongue, tarsorrhaphy, eyelid rebalancing with preservation of balanced facial function and aesthetics				X			X	1
tissue reduction with preservation of neuromuscular function				X			X	1

Orbital surgery	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the principles of management of hypertelorism, microphthalmos, frontonasal dysplasia, craniofrontonasal dysplasia, orbital malpositions and dystopias, vertical orbital dystopia, late plagiocephaly and hemifacial microsomia								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
applied anatomy of the orbit and contents		X				X	X	1
examination of the eye and basic vision		X				X	X	1
eyelid anatomy and eyelid malposition		X				X	X	1
growth of the orbit		X				X	X	1
definition of terms eg hypertelorism, dystopia, telecanthus		X				X	X	1
differential diagnosis/genetics of hypertelorism syndromes		X				X	X	1
MDT assessment of hypertelorism syndromes		X				X	X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
visual physiology, squint & principles of strabismus surgery		X				X	X	1
medial and lateral canthal fixation methods		X				X	X	1
orbital Prostheses – types, indications		X				X	X	1
superior orbital fissure syndrome		X				X	X	1
orbital apex syndrome		X				X	X	1
relative afferent papillary defect		X				X	X	1
retrobulbar haemorrhage		X				X	X	1
reasons and timing for orbital translocation		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of								
orbital osteotomies		X				X	X	1
microphthalmos – orbital expansion (expanders & osteomies)		X				X	X	1
impact on orbital translocation on vision		X				X	X	1
use of Box, Bipartition and advancement osteotomies of the orbit		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Emergencies – see module 1	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to								
plan orbital osteotomies	X						X	1
formulate a management plan with respect to both techniques and timing	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to								
formulate management plans with Ophthalmology and Neurosurgery in the context of the MDT	X						X	1
plan minimal access and endoscopic approaches	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Not applicable								
<b>INTERMEDIATE</b>								
Should be able to perform split calvarial bone graft harvest and fixation of bone graft				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
minimal access incisions				X			X	1
box osteotomies				X			X	1
facial bipartition				X			X	1
vertical orbital dystopia correction				X			X	1
orbital reconstruction – autologous or alloplastic				X			X	1
transcranial and subcranial orbital expansion				X			X	1
Mommaerts osteotomies				X			X	1
orbital access approaches (tumours)				X			X	1

Craniomaxillofacial trauma	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the assessment of a patient who has sustained injury and or fractures of the Craniomaxillofacial region								
Develop ability to assess an injured patient presenting either acutely or in the outpatient clinic								
Be alert for the potential for this class of injuries to occur and impact on the patient's airway, and vision								
Awareness of consequences of change in orbital volume								
Understand fracture patterns of the mandible, middle third of the face and orbits including multiple fractures								
To be able to formulate a differential diagnosis and an investigation and management plan								
To be able to treat the patient appropriately up to and including operative intervention if appropriate								
Understand the principles of surgical management of these injuries								
Understand the principles of intermaxillary fixation techniques, principles of plate osteosynthesis and bone healing								
Understand the principles of extraoral cranial fixation								
Be able to carry out these procedures safely and competently or understand the need to refer to allied disciplines								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of scalp, face, nose, ears, eyelids, orbit and contents		X				X	X	1
anatomy of craniofacial skeleton and temporomandibular joint (TMJ)		X				X	X	1
anatomy and physiology of parotid and lacrimal apparatus		X				X	X	1
bone healing		X				X	X	1
aetiology of facial trauma		X				X	X	1
priorities of management		X				X	X	1
assessment of airway and level of consciousness (Glasgow coma scale)		X				X	X	1
assessment of head injury and cranial nerve function		X				X	X	1
pharmacology and therapeutics of post-operative analgesia		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
anatomy of trigeminal nerve and infiltration / nerve block anaesthesia		X				X	X	1
signs and symptoms of fractures of cranium and facial skeleton		X				X	X	1
signs and symptoms of TMJ dislocation and fracture dislocation		X				X	X	1
other fracture complexes		X				X	X	1
classification of fractures of the craniofacial skeleton		X				X	X	1
appropriate investigations of facial nerve and duct injury		X				X	X	1
appropriate investigations of lacrimal apparatus injury		X				X	X	1
significance of dental occlusion		X				X	X	1
importance of disruption of the canthal ligaments		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
physiology of nasal cavity, sight and oculomotor function		X				X	X	1
classification of craniofacial fractures		X				X	X	1
potential complications of cranial, nasal, orbital, middle-third and mandibular fractures		X				X	X	1
available open and closed techniques of surgical management including intermaxillary fixation		X				X	X	1
principles of nerve repair and stenting of ducts		X				X	X	1
understanding the benefits and indications of both open and closed treatments		X				X	X	1
surgical approaches to the orbit		X				X	X	1
awareness of need for urgent orbital decompression or release of ocular muscles		X				X	X	1
available techniques/materials for orbital wall reconstruction		X				X	X	1
potential complications early / intermediate and late		X				X	X	1
role of the maxillofacial technician		X				X	X	1,3
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
undertake general assessment of the traumatised patient	X						X	1
airway management and emergency treatment of facial trauma	X						X	1
assessment and examination of patient with facial trauma	X						X	1
awareness of additional factors affecting timing of surgery	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess the nasal bones, cartilages and septum	X						X	1
assess the orbits and contents and ears	X						X	1
assess dental occlusion	X						X	1
perform clinical examination of ears, orbit, eyelids and lacrimal apparatus, teeth, oral cavity, facial skeleton and cranial nerves	X						X	1
ability to correctly interpret physical signs	X						X	1
arrange investigations, selection and interpretation of relevant radiographic imaging of craniofacial fractures	X						X	1
manage epistaxis and septal haematoma	X						X	1
formulate a treatment plan and prioritise management	X						X	1
exercise clinical judgment appropriate to injury and patient needs	X						X	1
liaise as appropriate with Ophthalmology, Oral and Maxillofacial and Neurosurgery colleagues where appropriate	X				X		X	1,3
<b>ADVANCED</b>								
Should demonstrate ability to:								
manage frontal sinus fractures	X						X	1
assess need for removal of damaged teeth/retained roots	X						X	1
prescribe appropriate pain control /prevention of infection	X						X	1
perform local anaesthetic infiltration for pain control / nerve block anaesthesia	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
intra/extra-oral soft tissue handling and suturing techniques				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
surgical repair of nerve injury under magnification				X			X	1
techniques of intermaxillary fixation				X			X	1
techniques for approach to the orbital walls				X			X	1

<b>ADVANCED</b>								
Should be able to perform:								
manipulation of nasal bones and septum				X			X	1
nasal packing and splintage				X			X	1
ability to stent and repair duct				X			X	1
techniques for management of displaced canthal ligaments				X			X	1
safe exposure of fracture sites and reduction of fragments				X			X	1
plate handling skills				X			X	1
selection and use of appropriate allograft materials				X			X	1
bone grafting (variety of donor sites)				X			X	1
approach and expose frontal bone fractures				X			X	1

<b>Ear deformities and ear reconstruction</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competence in the diagnosis and principles of management of all aspects of ear deformities and ear reconstruction								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy and embryology of the external, middle and inner ear		X				X	X	1
pathophysiology of skin and cartilage wound healing, soft tissue tumours of the ear including haemangioma, problem scarring including keloid and principles of management of scarring		X				X	X	1
various classifications of ear deformities including acquired ear deformities		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
principles of osseointegration		X				X	X	1
local and regional flaps around the ear including the scalp		X				X	X	1
development of the mandible and syndromes associated with ear deformities		X				X	X	1
different techniques of correcting the prominent ear		X				X	X	1
principles of tissue expansion		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
various techniques of reconstructing microtia, macrotia, complex ear deformities such as constricted ears, sports induced trauma, different techniques of ear reconstruction following partial/total loss, with and without cartilage loss, timing of microtia surgery		X				X	X	1
techniques to correct ear lobe deformities		X					X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to undertake:								
clinical assessment of the ear and identifying anatomical variations from the norm	X						X	1
clinical assessment of problem scarring and soft tissue tumours and formulating a plan of management	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
differentiate and classify the various ear deformities and identify the anatomical deficiencies or variations of the ear		X					X	1
plan surgical procedures for prominent ear, cryptotia, deformities of the ear with minimal loss of the auricular tissue		X					X	1
plan and interpret relevant investigations for the ear sinus, congenital ear deformities		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to								
assess complex ear deformities including those of the earlobe and syndromic patients, formulate a plan of management	X	X					X	1
assess the soft tissue cover and need for tissue expansion/flap cover	X	X					X	1
assess facial nerve function and mandibular deformities as well as occlusion of teeth	X	X					X	1
assess the suitability of patient for autogenous versus prosthetic ear reconstruction	X	X					X	1
assess and manage complications of ear corrections and ear reconstructive procedures	X	X					X	1
communicate effectively with patient and carer		X					X	3,1
communicate with other team members of the MDT to integrate a time line for reconstruction		X					X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
excision of simple accessory auricles, cysts and small tumours on the ear with direct closure or skin grafting, intralesional steroid injection				X			X	1
repair of split earlobes with local flaps				X			X	1
repair of simple lacerations of the ear with or without cartilage repair				X			X	1
excision of Darwen’s tubercle				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
correction of prominent ear with and without cartilage mutilation				X			X	1
correction of cryptotia				X			X	1
excision of tumours and repair of defects with local/regional flaps				X			X	1
excision of auricular sinuses				X			X	1
management of complications of corrective surgery				X			X	1
insertion of tissue expander				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
correction of complex ear deformities: spectrum of constricted ears, “crumpled” ears, cauliflower ears, acrobatic ears with calcified cartilage framework, macrotia and autogenous reconstruction of ears for anotia/microtia				X			X	1
harvesting rib cartilage, carving cartilage to design framework for ear reconstruction				X			X	1
dissecting skin envelope, temporalis fascial flap raising and inseting, raising other local flaps for skin cover of framework, conchal cartilage graft harvest, carving and inseting into defect				X			X	1
various operations for ear lobe reconstruction				X			X	1

<b>Hypospadias and allied conditions</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the principles of management of hypospadias and allied conditions including management of the family in addition to all aspects of the surgical management and complications								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
embryology of the external genitalia, endocrinology pathology, anatomy of the male genitalia		X				X	X	1

wound healing		X				X	X	1
aetiological factors		X				X	X	1
investigations		X				X	X	1
management of the family		X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
classification of hypospadias		X				X	X	1
classification of surgical procedures		X				X	X	1
surgical techniques available for correction of hypospadias		X				X	X	1
cause and management of ventral curvature		X				X	X	1
timing of surgery		X				X	X	1
management of foreskin		X				X	X	1
principles of surgical management, post operative management and complications		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of hypospadias and allied conditions including:		X				X	X	1
recent theories on aetiology		X				X	X	1
assessment of outcome, flow rate		X				X	X	1
management of complications		X				X	X	1
management of salvage patient		X				X	X	1
management of BXO including aetiology		X				X	X	1
management of buried penis		X				X	X	1
management of cryptohypospadias(ventral curvature without hypospadias)/Peyronies disease		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assess presence and severity of hypospadias, presence of ventral curvature	X	X					X	1
asses whether foreskin is suitable for reconstruction	X	X					X	1
manage the child/family unit so that all are comfortable with the reconstructive process		X					X	3,1
discuss the pro/cons of timing of surgery and reasons for operating		X					X	3,1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess which operative technique is appropriate for the degree of deformity		X					X	1
analyse outcome including identification of complications		X					X	1
assess the child with foreskin anomaly	X	X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to								
identify those patients with suboptimal outcome or complication requiring further investigation or surgery and develop a management plan		X					X	1
assess a patient with foreskin and/or urethral BXO requiring further investigation and/or surgery	X	X					X	1
assess an hypospadias salvage/cripple patient with a view to surgical correction and develop a management plan	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
meatotomy				X			X	1
circumcision				X			X	1
trimming of skin envelope following hypospadias repair				X			X	1
harvesting of foreskin/buccal mucosal full thickness graft, preparation and closure of the donor site				X			X	1
artificial erection test				X			X	1
closure of GAP hypospadias repair				X			X	1
foreskin reconstruction				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
meatotomy				X			X	1
trimming of skin envelope following hypospadias repair				X			X	1
closure of GAP hypospadias repair				X			X	1
foreskin reconstruction				X			X	1
distal hypospadias reconstruction				X			X	1
dissection of GAP hypospadias repair				X			X	1
Snodgrass repair – dissection, closure of urethra, raising and inset of waterproofing layer, closure				X			X	1
Snodgraft repair – dissection, inset of graft, and closure as above				X			X	1
reconstruction of midshaft and proximal hypospadias				X			X	1
1st stage Bracka repair – dissection of urethral plate, removal of fibrous bands, dissection of glans wings, inset of graft, application of dressing and post-op management of dressing				X			X	1
2nd stage Bracka – dissection and closure as per Snodgrass				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
Snodgrass repair – dissection, closure of urethra, raising and inset of waterproofing layer, closure				X			X	1
Snodgraft repair – dissection, inset of graft, and closure as above				X			X	1
2nd stage Bracka – dissection and closure				X			X	1
closure of simple fistula				X			X	1
closure of complex fistula				X			X	1
operative management of fistula with distal urethral stenosis				X			X	1
operative management of distal/meatal stenosis				X			X	1
operative management of cryptohypospadias/Peyronies				X			X	1
management of BXO – steroids, circumcision, 2 stage recon with buccal mucosal graft				X	X		X	1
management of complex salvage/cripple patient – Snodgraft, 2 stage Bracka repair with buccal and/or bladder mucosa				X	X		X	1
harvesting bladder mucosal graft				X			X	1

Epispadias, Anomalies of Female Genitalia, Ambiguous Genitalia and Acquired Perineal Defects	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the principles of management of epispadias, anomalies of female genitalia, ambiguous genitalia and acquired perineal defects								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of epispadias/bladder extrophy, incidence, aetiology, MDT principles of management		X				X	X	1

defects of female genitalia – congenital/acquired		X				X	X	1
<u>Congenital</u> . Aims of surgical correction – restoration of urinary / faecal and sexual function		X				X	X	1
age at presentation		X				X	X	1
<u>Acquired</u> - causes – tumour, infection, trauma, previous DXT, scarring secondary to birth tear / episiotomy		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
epispadias – aims of management, principles of treatment, principles of two main surgical repairs		X				X	X	1
female genitalia – congenital absence of vagina (Meyer-Rokitansky Syndrome), incidence, presents with primary amenorrhoea diagnostic test, principles of reconstruction – length, width vagina, durability, sensation		X				X	X	1
male genitalia reconstruction in Fournier’s disease, cancer, trauma, vascular malformation, BXO with emphasis on preservation of adequate length, sufficient skin for unrestricted erection, durability and sensation, preservation of erection and adequate urinary stream		X				X	X	1
reconstruction of urethra – staged BUMG, bladder mucosa		X				X	X	1
skin – SSG		X				X	X	1
scrotum – SSG, Flaps		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
Methods of female reconstruction post acquired defect – local pedicled flaps – lotus, gracillis, SSG, muscle flaps – gracillis myocutaneous flaps, distant flaps – VRAM		X				X	X	1
Male reconstruction post acquired defects		X				X	X	1
Urethra – 2 stage Bracka with BUMG with or without bladder mucosa grafts		X				X	X	1
Glans – glansectomy and quilted thick SSG for reforming glans over existing corpora		X				X	X	1
Scrotum – tissue expansion, SSG, flaps – gracillis, Singapore technique		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
arrange appropriate investigations for conditions described in this module		X					X	1
perineal defects including assessment of patient with Fournier’s and initial management, identification of potential defect following resection of perineal tumour				X			X	1
<b>INTERMEDIATE</b>								
Should be able to plan primary flaps for reconstruction of perineal defect e.g. lotus, gracillis, VRAM		X		X			X	1
epispadias, female genitalia anomalies and ambiguous genitalia incorporating expectations of the child and the family, analysis of the specific congenital problem and what may be required during reconstruction		X		X			X	1
perineal defects		X		X			X	1
Should be able to:								
consent patients for reconstruction of perineal defects including graft and flap reconstruction		X					X	3,1
<b>ADVANCED</b>								
Should demonstrate ability to formulate treatment plan for:								
ambiguous genitalia – incidence, causes, associated features, investigations – chromosome profile, testosterone / sex steroid profile and approach to parents		X					X	1
absence of vagina – reconstruction, Frank method – dilators, fasciocutaneous flaps, colonic or intestinal flaps		X					X	1
SSG – McIndoe method		X					X	1
Should demonstrate ability to manage:								
epispadias, female genital anomalies and ambiguous genitalia		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
SSG, full thickness graft, jumping man, application of topical negative pressure dressing				X			X	1
<b>BASIC</b>								
Should be able to perform							X	1
SSG, full thickness graft, jumping man, application of topical negative pressure dressing.				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform								
reconstruction of perineal defects – local flap reconstruction of vagina/labia including lotus and gracillis, resurfacing penile shaft, groin dissection, coverage of exposed testes				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
surgical correction of epispadias, female genital anomalies and ambiguous genitalia be inaccessible to many trainees				X			X	1
reconstruction of perineal defects – external pudendal flap, posterior thigh flap, VRAM for abdominoperineal resection, glansectomy for cancer, free flaps for major perineal defects				X			X	1

Genital Reassignment	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the principles of management of gender reassignment								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
definition of transsexualism		X				X	X	1
aetiology sex ratio		X				X	X	1
diagnosis of gender dysphoria		X				X	X	1
problems associated with gender dysphoria - psychosocial, physical support for surgery, financial support for surgery		X				X	X	1
MDT		X				X	X	1
Requirement for NHS Management:								
1. Live as other gender for two years		X				X	X	1
2. Hormones		X				X	X	1
3. Surgery		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of techniques available for male to female reassignment:								
penile flap – glans reduced as clitoris, penile skin as flap for vagina, scrotum for labia / clitoral hood – usually two stage		X				X	X	1
modified McIndoe – SSG or FTSG from penis for vagina		X				X	X	1
others – bowel for vagina		X				X	X	1

<b>ADVANCED</b>								
Should demonstrate knowledge of techniques available for female to male reassignment		X				X	X	1
mastectomy		X				X	X	1
phallus construction with internal urethra and ability to become erect, non hair bearing, sensate, size, erectability and arousability by deep pudendal nerve. Specific options for phallus reconstruction.		X				X	X	1
random pattern abdominal tube pedicle		X				X	X	1
groin flap		X				X	X	1
SIEA flap		X				X	X	1
gracillis flap		X				X	X	1
radial forearm flap		X				X	X	1
urethral reconstruction options:		X				X	X	1
SSG		X				X	X	1
FTSG		X				X	X	1
transplantation of urethra		X				X	X	1
tubed bladder wall		X				X	X	1
ancillary procedures:		X				X	X	1
testicular implants		X				X	X	1
vaginectomy		X				X	X	1
facial feminising techniques		X				X	X	1
breast augmentation		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Ability to demonstrate:								
working within an MDT and the ability to assess the psychological state of the patient		X					X	1
<b>INTERMEDIATE</b>								
Ability to demonstrate:								
develop the skills to arrange patient-centered care with patient as partner in the process (depending on age of patient), providing realistic information and guiding patient decision-making regarding choices available and timing of those treatments		X					X	3,1
<b>ADVANCED</b>								
Ability to manage and lead:								
multi-disciplinary teams in respect of provision of psycho-social care. Be able to arrange the care pathway that supports an individual and his/her family to successfully adjust to disfigurement through giving the individual and family specific life-skills. These include the patient being provided with information about their condition and its treatment, developing a positive outlook/belief system, learning to cope with their feelings, exchanging experiences with others who’ve “been there” and social skills training to manage other people’s reactions.		X					X	3,2,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
raising local flaps				X			X	1
assessment of size of prosthesis needed				X			X	1
insertion of testicular prosthesis				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform								
elevation of complex flaps including, groin flap, radial forearm flap, abdominal tubed pedicle, SIEA flap and gracillis flap				X			X	1
<b>ADVANCED</b>								
Should be able to perform								
specific operations for gender reassignment				X			X	1

<b>Skin / Soft tissue / Microsurgery / Dupuytren’s Disease</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of soft tissue problems around the hand and upper limb including traumatic loss								
Acquire competence in all aspects of care of Dupuytren’s disease								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy, embryology, physiology of skin, blood supply and blood flow		X				X	X	1
models of skin blood supply		X				X	X	1
mechanism of action of pharmacology on the microcirculation		X				X	X	1
elements of wound healing		X				X	X	1
organisms causing soft tissue infection including, microbiology of infecting organisms, surgical pathology and spread of infection		X				X	X	1
surgical and pathological anatomy of Dupuytren’s disease in the palm and digits		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
range, indications and principles of operations to treat conditions listed in this module		X				X	X	1
post-operative complications and their management		X				X	X	1
hand therapy interventions for wound & scar management, reduction of swelling and management of stiffness		X				X	X	1
levels of amputation for the upper limb		X				X	X	1
principles of microvascular surgery		X				X	X	1
principles of replantation including macroreplantation		X				X	X	1
sciences of pathogenesis of Dupuytren’s disease		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
recent advances in wound healing including wound healing technology such as vacuum-assisted closure		X				X	X	1
ancillary investigations including those pertinent to vascular compromise of limb, life or limb-threatening infections		X				X	X	1
techniques to raise vascularised free tissue transfers including lateral arm flap, latissimus dorsi flap, gracilis flap, toe transfer		X				X	X	1
management of the mutilating hand injury including rollover injury, gunshot injury		X				X	X	1
management of extravasation and high-pressure injection injury to the hand		X				X	X	1
management of thermal injury to the hand including local treatment of scald, flame, chemical & electrical burns and frostbite		X				X	X	1

<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should perform:								
assessment and non-operative management of the acute surgical patient including targeted hand-related history and hand examination	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
devise management algorithms for the conditions covered in this section including investigations		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate abilities of:								
analysis and diagnostic synthesis, judgement, surgical planning		X				X	X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
nail bed repair				X			X	1
different types of skin grafts including split skin/full thickness skin graft				X			X	1
palmar fasciectomy for Dupuytren’s disease				X			X	1
fasciocutaneous flaps around the forearm				X			X	1
variety of flap reconstructions				X			X	1
local flap (transposition, rotation, island)				X			X	1
microsurgical techniques				X			X	1
arterial and venous repair – small and medium vessels				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
fingertip reconstruction : heterodigital flap reconstruction including cross-finger flap, thenar flap, Foucher flap, and homodigital neurovascular island flaps				X			X	1
application of mechanical vacuum suction device for appropriate wounds				X			X	1
debridement of complex wounds				X			X	1
fasciectomy for MCPJ contracture (Dupuytren’s disease)				X			X	1
fasciectomy with correction of PIPJ contracture				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
planning and execution of flap reconstruction				X			X	1
distant flap e.g. groin, posterior interosseous artery flap, radial forearm flap				X			X	1
free tissue transfer – flap elevation				X			X	1
elevation of variety of free tissue transfers e.g. lateral arm flap, latissimus dorsi muscle flap, second toe transfer etc.				X			X	1
includes cadaver based flap elevation as part of simulation exercises				X			X	1
microsurgical techniques				X			X	1
microsurgical free tissue transfer				X			X	1
revascularisation digit or upper limb part				X			X	1
replantation of digit or upper limb segment				X			X	1
fasciectomy for recurrence of Dupuytren’s disease				X			X	1
dermofasciectomy for Dupuytren’s disease				X			X	1

<b>Fractures and Joint Injuries including Wrist Instability</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of all types of fractures of the phalanges, metacarpals, carpus and distal radius								
Acquire competence in the diagnosis and management of the unstable wrist including distal radioulnar joint								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
pathophysiology of fracture healing including non-union and malunion		X				X	X	1
principles of operative and non-operative management of hand and wrist fractures		X				X	X	1
detailed anatomy of:								
radio-carpal/DRUJ/MCP/PIP/DIP joints and CMC joint of the thumb		X				X	X	1
ligamentous anatomy of these joints and how it influences treatment		X				X	X	1
available imaging techniques and their interpretation:		X				X	X	1
plain and stress radiographs of the wrist and hand		X				X	X	1
other specific views relevant to particular situations		X				X	X	1
role of: MRI/bone scan / ultrasound / arthrography / arthroscopy for investigating the hand and wrist		X				X	X	1
<b>INTERMEDIATE</b>								
Should be able to demonstrate knowledge of:								
detailed management of fractures and dislocations of bones and joints of hand and wrist including carpus and distal radioulnar joint,		X				X	X	1
normal biomechanics of the osseoligamentous structures of the hand and wrist		X				X	X	1
<b>ADVANCED</b>								
Should be able to demonstrate knowledge of:								
detailed wrist anatomy		X				X	X	1
pathophysiology of wrist instability / recognised patterns of instability and their clinical presentation		X				X	X	1
investigations for complex joint disorders and wrist instability		X				X	X	1
appropriate interventions for wrist instability through knowledge of indications		X				X	X	1
indications for diagnostic and therapeutic wrist arthroscopy		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess fractures, dislocations and ligamentous injuries of the hand and wrist	X						X	1
assess the unstable wrist	X					X	X	1
manage common fractures of the hand and wrist		X					X	1
apply a range of plaster splints				X			X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
manage more complex fractures of the hand and wrist		X					X	1
manage distal radius and scaphoid fractures by standard techniques		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
clinically assess and manage complex fractures of the distal radius and scaphoid	X	X					X	1
manage ligamentous injury of the carpus and distal radioulnar joint		X					X	1
manage malunion and non-union of fractures of the phalanges, carpus and distal radius		X					X	1

TECHNICAL SKILLS AND PROCEDURES								
<b>BASIC</b>								
Should be able to perform:								
simulation-based exercises of the techniques for fracture fixation: closed reduction with application splint or cast, K-wiring and interosseous wiring, plate and screws, and lag screw				X				1
<b>INTERMEDIATE</b>								
Should be able to perform:								
closed K-wiring for CMC/PIP joint dislocations, phalangeal/metacarpal fractures, distal radius fractures (pins & plaster)				X			X	1
open fixation of metacarpal fractures				X			X	1
open fixation of uncomplicated distal radius fractures				X			X	1
repair of ulnar collateral ligament of MCPJ of thumb (Gamekeeper’s thumb)				X			X	1
application of external fixator to upper limb				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
open fixation of phalangeal fractures				X			X	1
operative treatment of intra-articular fractures of the PIP joint				X			X	1
open fixation of complex distal radius fractures				X			X	1
scaphoid fracture fixation (acute and for non-union)				X			X	1
vascularised bone grafting for scaphoid non-union				X			X	1
operative stabilisation of acute carpal disruptions, ligament stabilisation procedures for chronic problems of the scapholunate, lunotriquetral CMC joints and midcarpal instability				X			X	1
ligament stabilisation procedures for chronic problems of the scapholunate, lunotriquetral CMC joints and midcarpal instability				X			X	1
bone transport				X			X	1
Should be able to use bone substitutes				X			X	1

Osteoarthritis and Inflammatory Arthritis	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of all aspects of management of osteoarthritic joints of the hand and wrist. Acquire competence in the diagnosis and management of all aspects of management of inflammatory arthritis of the hand and wrist.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
pathophysiology of osteoarthritis, inflammatory arthritis and septic arthritis including appreciation of patterns of disease		X				X	X	1
imbalances and deformities associated with inflammatory arthritis		X				X	X	1
pathomechanics of common rheumatoid hand deformities including:		X				X	X	1
distal radioulnar joint subluxation and carpal translocation		X				X	X	1
MCPJ subluxation and ulnar drift		X				X	X	1
digital boutonnière and swan neck		X				X	X	1
thumb deformity and CMC disease		X				X	X	1
principles of arthroplasty		X				X	X	1
<b>INTERMEDIATE</b>								
Should be able to demonstrate knowledge of:								
principles and detailed management of the common osteoarthritic disorders of the hand and wrist including the basal joint of the thumb		X				X	X	1
principles and detailed management of rheumatoid arthritis in the hand and wrist		X				X	X	1
aetiology, pathomechanics of deformity in inflammatory arthritides including understanding disease patterns		X				X	X	1
biomechanics of small joint replacement		X				X	X	1
place of soft tissue reconstruction, joint fusion, replacement, interposition and excision arthroplasty in the treatment of the rheumatoid hand and wrist		X				X	X	1
planning and prioritising treatment within an MDT setting		X					X	1
<b>ADVANCED</b>								
Should be able to demonstrate knowledge of:								
principles and detailed management of more complex and osteoarthritic disorders of the hand including secondary osteoarthritis		X				X	X	1
surgical and non-surgical management of the wrist, tendons, small joints and imbalance disorders (swan neck and boutonnière) occurring in rheumatoid arthritis		X				X	X	1
pathology, mechanisms of deformity and management of other inflammatory conditions (non-rheumatoid) affecting the hand and wrist		X				X	X	1
management of Kienböck’s disease and Madelung’s deformity		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess the arthritic patient and recognise the typical patterns of disease	X	X					X	1
demonstrate conservative management techniques including splinting, exercises and understanding of occupational therapy assessment and provision of aids to daily living	X	X					X	1
undertake external K-wire removal				X			X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
undertake detailed examination of the patient with inflammatory arthritis to demonstrate the features of:								
distal radioulnar joint subluxation and carpal translocation	X						X	1
MCPJ subluxation and ulnar drift	X						X	1
digital boutonnière and swan neck	X						X	1
thumb deformity and CMCJ disease	X						X	1
diagnose pathology through local anaesthetic joint injection techniques	X						X	1
undertake treatment by joint injection,	X						X	1
includes simulation-based exercises for joint injection techniques	X						X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of detailed management algorithms for the conditions covered in this module including complex conditions	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
harvesting of iliac bone graft / radius bone graft				X			X	1
simulation-based exercises of wrist arthroscopy				X				1

<b>INTERMEDIATE</b>								
Should be able to perform:								
arthrodesis of DIPJ / PIPJ/ MCPJ				X			X	1
trapeziectomy plus/minus soft tissue ligamentous reconstruction				X			X	1
total wrist arthrodesis				X			X	1
Darrachs procedure				X			X	1
Suave-Kapandje procedure				X			X	1
diagnostic wrist arthroscopy				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
therapeutic wrist arthroscopy e.g. TFCC debridement				X			X	1
limited arthrodesis including STT, 4-corner, radiolunate				X			X	1
variety of procedures for rheumatoid arthritis including MCPJ arthroplasty e.g. Swanson silicone spacer replacement, surface replacement arthroplasty, soft tissue arthroplasty with ligament reconstruction for instability, soft tissue correction for swan neck/boutonnière deformities				X			X	1
joint replacement arthroplasty: PIP / CMCJ / Wrist / DRUJ				X			X	1

<b>Tendon and tendon-related disorders</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of all aspects of flexor and extensor tendon injuries and associated reconstruction. Detailed knowledge of the hand therapy and rehabilitation regimens for the same.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should be able to demonstrate knowledge of:								
mechanisms of tendon injury and healing		X				X	X	1
pathophysiology of related tendon disorders		X				X	X	1
<b>INTERMEDIATE</b>								
Should be able to demonstrate knowledge of:								
principles of tendon transfer		X				X	X	1
biomechanics of the tendons and tendon sheath / pulleys		X				X	X	1
available suture techniques for repair of the divided tendon including multistrand repair		X				X	X	1
rehabilitation regimens for flexor and extensor tendon repair		X				X	X	1
<b>ADVANCED</b>								
Should be able to demonstrate knowledge of:								
recent advances in basic sciences of tendon injury and repair		X				X	X	1
basic science and evidence base informing use of different techniques of tendon repair and rehabilitation regimens		X				X	X	1
the role of the intrinsic muscles in facilitating co-ordinated tendon function		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess the injured tendon and other tendon disorders	X						X	1
select use of relevant specialist imaging techniques such as ultrasound		X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
clinically assess and manage algorithms for the conditions covered in this module		X					X	1
examine the stiff finger and distinguish flexor/extensor adhesions / primary or secondary joint stiffness	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
undertake detailed assessment of and advise on complex tendon problems including reconstruction and reanimation of the hand in cases of tendon loss and nerve palsy using individualised tendon transfers		X					X	1
analyse and advise on modifications needed to standard therapy regimens to correct specific problems such as joint contracture		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
extensor tendon repair				X			X	1
flexor tendon repair (Zones III-V)				X			X	1
tendon graft harvest				X			X	1
extensor / flexor synovectomy				X			X	1
trigger digit release				X			X	1
Includes simulation-based exercises related to tendon surgery				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:				X			X	1
De Quervain’s release				X			X	1
flexor tendon repair (multistrand)(Zones I & II)				X			X	1
flexor or extensor tenolysis				X			X	1
tendon transfer (EI-EPL)				X			X	1
tenodesis (EDC replacement in partial EDC rupture)				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
late reconstruction of flexor and extensor tendons				X			X	1
tendon grafting 1 and 2-stage				X			X	1
tendon transfer				X			X	1
radial nerve set				X			X	1
opponensplasty for opposition				X			X	1
intrinsic replacement for claw hand				X			X	1
adductorplasty for key pinch				X			X	1

<b>Nerve and nerve-related disorders</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquires competence in the diagnosis and management of all aspects of nerve related disorders including nerve compression, nerve palsy and nerve injuries along with associated reconstructive techniques. Acquires detailed knowledge of the rehabilitation regimens for the same.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
topographic anatomy of peripheral nerve including brachial plexus		X				X	X	1
response of peripheral nerve to injury and repair		X				X	X	1

pathophysiology of nerve compressive disorders		X				X	X	1
appropriate outcome assessment instruments		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
techniques of nerve repair		X				X	X	1
mechanisms of brachial plexus injury, the patterns of injury and outline treatment options		X				X	X	1
pathophysiology and classification of CRPS and neuropathic pain problems		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
appropriate use of nerve grafts and other conduits		X				X	X	1
techniques of nerve reconstruction, neurotisation, and muscle transfers for reanimation of the upper limb		X				X	X	1
principles of management and classification systems pertinent to cerebral palsy and tetraplegia		X				X	X	1
pharmacological and non-pharmacological methods for the relief of nerve-related pain problems		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess nerve-related disorders including brachial plexus	X						X	1
apply relevant specialist imaging techniques such as electrophysiological investigation and ultrasound	X						X	1
prevent iatrogenic nerve injury	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
clinical assessment and management algorithms for the conditions covered in this module	X						X	1
assessment of nerve function using specific equipment used in rehabilitation and assessment (such as Semmes Weinstein filaments)	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
clinically assess brachial plexus and obstetrical brachial plexus injury including acute and interval treatment	X						X	1
clinically assess the spastic and tetraplegic upper limb	X						X	1
define the management algorithm of the iatrogenic nerve injury	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
peripheral nerve repair including digital nerve including simulation-based exercises for microsurgical peripheral nerve repair				X			X	1
nerve graft harvest				X			X	1
carpal tunnel release				X			X	1
cubital tunnel release (simple decompression)				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
nerve decompression : cubital tunnel release (transposition / medial epicondylectomy), revision carpal tunnel release				X			X	1
nerve grafting for segmental nerve defect				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
nerve decompression				X			X	1
ulna nerve in Guyon’s canal				X			X	1
submuscular transposition of ulna nerve (cubital tunnel)				X			X	1
radial nerve in radial tunnel				X			X	1
median nerve in pronator tunnel				X			X	1
transposition of neuroma				X			X	1
wrist denervation				X			X	1
brachial plexus exploration (including OBP)				X			X	1
nerve grafting				X			X	1
neurotisation				X			X	1
intercostal nerve grafting				X			X	1
muscle transfer for reanimation				X			X	1

<b>The Child’s Hand, Vascular Disorders and Tumours</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire overall competence in the diagnosis and management of children’s hand problems with emphasis on congenital hand conditions								
Acquire competence in the management of vascular disorders and neoplastic conditions of the upper limb in both children and adults. Demonstrate knowledge of the aetiology, classification, risk factors and surgical management of these conditions.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
principles of management of children’s hand disorders including classification, reconstructive principles and timing of operations for congenital difference		X				X	X	1
embryology of the upper limb and the mechanisms of malformation		X				X	X	1
patterns of normal growth and development		X				X	X	1
management of vascular injury including compartment syndrome		X				X	X	1
principles of management of soft tissue and bony tumours particularly the more common swellings found around the hand		X				X	X	1
management of upper limb tumours with reference to surgical oncology including biopsy techniques, excision margins, management of regional lymph nodes, formal amputations		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
the following conditions of the Child’s Hand: trigger digits, polydactyly including thumb duplication, simple syndactyly, epiphyseal injury (Salter Harris)		X				X	X	1
management of vascular insufficiency syndromes, haemangiomas and vascular malformations		X				X	X	1
management of soft tissue and bony tumours including formal amputations, reconstructions		X				X	X	1
principles of management of skin cancer occurring in the upper limb and management of the regional lymph nodes		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
the following conditions of the Child’s Hand:		X				X	X	1
complex syndactyly (e.g. Apert’s hand)		X				X	X	1
radial dysplasia (radial club hand), ulnar dysplasia		X				X	X	1

thumb hypoplasia		X				X	X	1
upper limb malformations in arthrogryposis		X				X	X	1
Madelung’s deformity		X				X	X	1
Constriction band syndrome		X				X	X	1
cerebral palsy, spasticity		X				X	X	1
use of prosthetics		X				X	X	1
vascular lesions including vascular malformations		X				X	X	1
management of acute and chronic vascular insufficiency syndromes including compartment syndrome / Volkmann’s ischaemic contracture		X				X	X	1
classification systems and histopathology relevant to neoplasms of the upper limb including skin cancer, sarcoma and bone tumours		X				X	X	1
modalities of treatment including non-surgical and surgical options		X				X	X	1
surgical margins for the commoner tumours		X				X	X	1
options for reconstruction of the surgically excised defect		X				X	X	1
adjuvant treatments used in combination with surgery for malignant neoplasms		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess and deliver non-operative management of the Child’s Hand disorder	X						X	1
in respect of cancer diagnoses demonstrates the skill set necessary to advise a patient of such diagnosis	X						X	1
work and communicate within the relevant multidisciplinary team (MDT)	X				X		X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to apply a working knowledge of the management algorithms to the conditions covered in this module	X						X	1
<b>ADVANCED</b>								
Should demonstrate:								
skills of analysis and diagnostic synthesis, judgement, and surgical planning	X						X	1
in respect of the Child’s Hand, the ability to advise regarding timing of reconstruction and effect of growth on reconstructive surgery previously performed	X						X	1
in respect of vascular disorders shows the ability to advise regarding conservative, non-surgical and surgical treatment options	X						X	1
in respect of neoplastic conditions of the upper limb the shows the ability to provide detailed advice on the treatment pathway, including interpretation of specialist imaging, within the context of the relevant MDT	X						X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
surgery for uncomplicated traumatic conditions of the Child’s Hand				X			X	1
excision of small superficial vascular malformations				X			X	1
ganglion excision (dorsal wrist, volar wrist, DIPJ)				X			X	1
safe biopsy for suspected tumours of the upper limb				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
trigger thumb/finger release				X			X	1
simple syndactyly separation				X			X	1
correction of duplicate thumb				X			X	1
correction of polydactyly				X			X	1
reconstruction of vascular defects by vein grafting				X			X	1
excision of vascular malformations involving multiple tissue layers				X			X	1
fasciotomies for compartment syndrome				X			X	1
excision of giant cell tumour of tendon sheath				X			X	1
excision/curettage enchondroma				X			X	1
removal of swellings from nerves e.g. Schwannoma				X			X	1
excision of other benign tumours of bone and soft tissue				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
complex syndactyly correction				X			X	1
radialisation radial club hand				X			X	1
application external distraction devices for radial club hand				X			X	1
pollicisation				X			X	1
cleft hand correction				X			X	1
recreation of first web space (various conditions)				X			X	1
excision of major vascular malformations and reconstruction resultant defects				X			X	1
excision of malignant tumours of bone and soft tissue including compartmentectomy and reconstruction of resultant defects.				X			X	1
axillary lymphadenectomy				X			X	1

Basic Sciences – embryology, development, anatomy and physiology / Head & Neck assessment – examination, investigations including imaging and biopsy techniques	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
To understand the development, anatomy and physiology of the head and neck in relation to its surgery								
Competence in the diagnosis, use of imaging and management of head and neck disorders								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
embryology of head & neck		X				X	X	1
topographical and segmental anatomy of the head & neck		X				X	X	1
vascular, neuronal and lymphatic supply / drainage of the head & neck		X				X	X	1
appropriate use of diagnostic imaging		X				X	X	1
aesthetic units of the face and neck		X				X	X	1
anatomy of the skin-epidermal and dermal layers and appendigeal structures		X				X	X	1
embryology of the skin		X				X	X	1
histopathological appearance of skin		X				X	X	1
anatomy of the body surface, in particular the head and neck, hands, nails and feet		X				X	X	1
vascular, neuronal and lymphatic supply / drainage of the head & neck, trunk and limbs, blood supply of the skin		X				X	X	1
diagnostic imaging of skin neoplasia X-rays, CT, MRI, USS, PET-CT, and imaging assisted diagnostic biopsy		X				X	X	1

histology of the skin standard stains		X				X	X	1
immunocytochemistry and cytogenetic techniques		X				X	X	1
common benign skin disorders-hidradenitis suppurativa, epidermal cysts, lipomas, vascular and congenital malformations		X				X	X	1
melanocytic naevi including giant, actinic lesions and epidermal/dermal lesions etc., risks of malignant transformation in chronic lesions, giant melanocytic naevi and Marjolin’s ulcers		X				X	X	1
specific history and diagnostic features (clinical and non-clinical) of benign skin lesions (pigmented and non-pigmented), dysplastic naevi, lentigo maligna, melanoma and non-melanoma skin cancers (basal cell carcinoma and squamous cell carcinoma), dermatofibroma, keratoacanthoma, pilomatrixomata, actinic keratoses, Bowen’s disease		X				X	X	1
clinical features of dermatitis artefacta, folliculitis, pyogenic granuloma, inflammatory skin conditions (hidradenitis and acne vulgaris), fungal skin lesions, lentigines, angiomata		X				X	X	1
difference between telangiectasia and spider naevi		X				X	X	1
chronic wounds and pressure sores		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
range, indications and principles of surgical options for surgical ablation of tumours of the head & neck		X				X	X	1
range, indications and principles of surgical options for soft tissue defect reconstruction of the head & neck		X				X	X	1
range, indications and principles of surgical options for reconstruction of particular units of the head & neck (nose / eyelids / ears / lips)		X				X	X	1
concepts and limitations of diagnostic techniques		X				X	X	1
aetiology and assessment of facial palsy		X				X	X	1
assessment of facial aesthetics		X				X	X	1
role and use of the head & neck MDT		X				X	X	1,3
anatomy of special sites, the pelvis, epitrochlear and popliteal fossa, the triangular space of the back, the axilla, head and neck lymph node basins		X				X	X	1
anatomy and access for diagnostic biopsies when required		X				X	X	1
concepts and limitations of diagnostic techniques, dermoscopy, mapping biopsies, frozen sections		X				X	X	1
range, indications and principles of surgical options for surgical ablation of tumours of the skin		X				X	X	1
Mohs’ micrographic surgery		X				X	X	1
sentinel node biopsy		X				X	X	1
the role of the skin multidisciplinary team		X				X	X	1
diagnosis of lesions at difficult sites, subungual, large facial lesions, mucosal lesions, metastatic lesions		X				X	X	1
the range of dressings for open skin lesions/wounds		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
factors determining appropriate surgical ablation techniques		X				X	X	1
factors determining decision making in choice of flaps and tissue for soft tissue defect reconstruction		X				X	X	1
factors determining decision making in choice of flaps and tissue for reconstruction of particular units of the head & neck (nose / eyelids / ears / lips)		X				X	X	1
fange, indications and principles of surgical options and non-operative techniques in facial reanimation		X				X	X	1
anatomy in particular for block dissections of the axilla, inguinal, iliac and ilioinguinal regions		X				X	X	1
functional and surgical anatomy of the face, head and neck		X				X	X	1
the surgical options for reconstruction of particular units of the head & neck (nose / eyelids / ears / lips), the trunk, the upper lower and lower limb		X				X	X	1
the range of dressings available for complex wounds/ulcers		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take a focused head & neck history related to any head & neck symptom	X						X	1
assess and non-operatively manage acute injury	X						X	1
recognise life-threatening injuries of the airway and major blood vessels	X						X	1
undertake competent examination of the head & neck	X						X	1
undertake competent examination of cervical lymph nodes	X						X	1
record diagnostic findings accurately	X						X	1
organise discussion of cases at head & neck MDT meetings	X						X	1
take focused skin history related to any skin lesion and skin symptoms	X						X	1
use the magnifying glass, lighting, dermoscopy using polarised and non-polarised light	X						X	1
plan non-operative management of small open wounds	X						X	1
use non-operative methods of hemostasis in the acutely bleeding wound/ulcer	X						X	1
recognise life threatening injuries both airway and vascular	X						X	1
undertake resuscitation skills as laid out in ATLS	X						X	1
examine of the head & neck, upper limb, lower limb, abdomen and pelvis	X						X	1
assess lesions on the face, head and neck, hand, arm, trunk and lower limb	X						X	1
examine regional lymph nodes	X						X	1
organise discussion of cases at clinical meetings	X						X	1
accurately record diagnostic findings	X						X	1
use the current minimum dataset for skin cancers	X						X	1
use current databases and audit and peer review tools according to published requirements and guidelines	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
interpret significance of cytological and histological biopsy reports	X						X	1
interpret CT and MRI scans of the head and neck	X						X	1
plan appropriately for further non-standard investigations of head & neck symptoms following inconclusive initial test results	X						X	1
assess the chronic ulcer/wounds	X						X	1
recommend additional investigations to assess symptoms following inconclusive initial results	X						X	1
interpret and discuss cytological and histological biopsy reports	X						X	1
<b>ADVANCED</b>								
Should demonstrate skills of analysis and diagnostic synthesis, judgement and surgical planning pertaining to the topics covered in this module	X						X	1
interpret of any scans performed in particular PET, PET-CT and lymphoscintigraphy	X						X	1
assess and formulate management plan for the large complex wound	X						X	1
formulate appropriate and timely management, investigations, treatment and follow up plan for a patient all types of benign and malignant skin lesions	X						X	1,3

<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
airway management with the skill detailed in ATLS				X			X	1
circulatory support with the skills detailed in ATLS				X			X	1
free-hand and ultrasound guided lesion FNA of the head & neck				X			X	1
free-hand and ultrasound guided core biopsy of the head & neck				X			X	1
airway management using the techniques specified by ATLS				X			X	1
provide circulatory support using the techniques specified by ATLS				X			X	1
free-hand and ultrasound guided lesion biopsy				X			X	1
FNA of suspected lesions, punch biopsy				X			X	1
harvesting of cells for cytological examination for fungus or malignancy				X			X	1
aspiration of seromas or cystic skin lesions				X			X	1
excision biopsy of undiagnosed skin lesions smaller than 1cm in size including those suspicious for malignancy and direct closure techniques				X			X	1
application of the appropriate dressings in open wounds				X			X	1
application of the appropriate dressings in infected skin wounds				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
surgical incision / excision biopsy of intra-oral lesions				X			X	1
direct and indirect pharyngolaryngoscopy				X			X	1
examination of head & neck under anaesthesia				X			X	1
surgical incision / excision biopsy of lesions at difficult sites (any size if periorbital, nasal, sole of the foot or hands and larger lesions on the pretibial region)				X			X	1
biopsy of subungual lesions				X			X	1
use of Mohs micrographic surgery				X			X	1
application of a negative pressure dressing				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
sentinel lymph node biopsy				X			X	1
surgical incision / excision biopsy of intra-oral / laryngeal / pharyngeal lesions				X			X	1
sentinel lymph node biopsy to include interpretation of result				X			X	1
surgical incision / excision biopsy of large suspicious skin lesions (greater than 1cm in size) including large facial lesions				X			X	1
surgically debride and dress large complex wounds				X			X	1

<b>Skin-related neoplasia of the head &amp; neck</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competence in the diagnosis, assessment and management of all types of skin related cancer of the head and neck								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
epidemiology		X				X	X	1
histological classification (BCC / SCC / Melanoma / adnexal)		X				X	X	1
staging of skin cancer		X				X	X	1
prognostic factors (tumour and patient-related) and implications for patient treatment recommendations		X				X	X	1
principles of screening programmes within a population		X				X	X	1
NICE guidelines in treatment of non-melanoma skin cancers		X				X	X	1
understanding the MDT		X			X	X	X	1,3
knowledge of reconstructive options		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
indications for non-surgical treatment		X				X	X	1
adjuvant therapies including chemotherapy, radiotherapy, endocrine therapy and biological therapies particularly for melanoma		X				X	X	1
cancer biology – specifically with regards to hormonal and growth factors / receptors and tumour metastasis		X				X	X	1
palliative treatment options for skin cancer		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
association between specific high risk benign skin conditions with associated increased skin cancer risk		X				X	X	1
melanoma biology		X				X	X	1
important adjuvant and neo-adjuvant historical and current trials (clinical/surgical, chemotherapy, radiotherapy, hormonal and biological)		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focused skin-related history, eliciting factors associated with benign and malignant skin neoplasia	X						X	1
undertake competent head & neck examination	X						X	1
examine for head & neck lymphadenopathy	X						X	1
initiate appropriate investigations	X						X	1
undertake pre-op. skin prep and draping and prescribe antibiotic prophylaxis	X						X	1
work effectively within the skin cancer multidisciplinary team.	X				X		X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess and manage patients presenting with locally advanced disease	X						X	1
interpret CT, MRI & PET scans,	X						X	1
recognise where further pathology or imaging studies may be required and request these appropriately	X						X	1
develop and record management plan for the patient and discuss rationale for management of common scenarios with patients and colleagues	X						X	1
<b>ADVANCED</b>								
Should demonstrate skills of:								
communication of a cancer diagnosis with patients	X						X	1
discussion of complex treatment scenarios with patients including discussion of all options, advantages and disadvantages and take informed consent	X						X	1
analysis and diagnostic synthesis, judgement and surgical planning pertaining to conditions described in this module	X						X	1
communication within the MDT	X						X	1,3

TECHNICAL SKILLS AND PROCEDURES								
<b>BASIC</b>								
Should be able to perform:								
incision biopsy of lesion				X			X	1
excision biopsy of lesion				X			X	1
FNA / core sample of lymph node				X			X	1
Lymph node sampling [in centres where SNB not available]				X			X	1
local flap reconstruction (rotation / transposition / advancement)				X			X	1
split and full thickness skin grafts				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
sentinel lymph node biopsy, dual modality and blue dye only				X			X	1
selective / modified radical neck dissection				X			X	1
elevation of regional flaps				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
radical or extended neck dissection				X			X	1
reconstruction with regional flaps				X			X	1
free flap surgery				X			X	1
reconstruction of specific aesthetic units (nose / eyelids / ears / lips) – see also Module 4 Reconstructive techniques of the head and neck : Advanced technical skills and procedures				X			X	1

Non skin-related neoplasia of the head & neck	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Competence in the diagnosis, assessment and management of all types of non-skin related cancer of the head and neck								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
epidemiology		X				X	X	1
types of cancer – oral cavity, nasopharynx, oropharynx, larynx		X				X	X	1
reconstructive options		X				X	X	1
TNM Staging of skin cancer		X				X	X	1
prognostic factors (tumour and patient related) and implications for patient treatment recommendations		X				X	X	1
cancer network guidelines in treatment of non-skin cancers of the head & neck		X				X	X	1
understanding the MDT		X			X	X	X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
indications for non-surgical treatment								
adjuvant therapies including chemotherapy, radiotherapy, endocrine therapy and biological therapies.		X				X	X	1
cancer biology – specifically with regards to hormonal and growth factors / receptors and tumour metastasis		X				X	X	1
palliative treatment options for head & neck cancer.		X				X	X	1
hospice care		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
association between specific high risk benign skin conditions with associated increased skin cancer risk		X				X	X	1
important adjuvant and neo-adjuvant historical and current trials (clinical/surgical, chemotherapy, radiotherapy, hormonal and biological)		X				X	X	1
role of HPV virus in cancer aetiology		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should to be able to:								
take focused history related to non-skin tumours of the head & neck eliciting relevant factors	X						X	1
undertake competent head & neck examination particularly of oral cavity, pharynx and larynx	X						X	1
undertake competent examination of head & neck lymphadenopathy	X						X	1
initiate appropriate investigations	X						X	1
work effectively within the head and neck cancer multidisciplinary team	X				X		X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess and manage patients presenting with locally advanced disease	X						X	1
interpret CT, MRI & PET scans,	X	X					X	1
recognise where further pathology or radiology may be required and request these appropriately	X						X	1
develop and record management plan for the patient and discuss rationale for management of common scenarios with patients and colleagues	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
discuss a cancer diagnosis with patients	X						X	1
discuss a cancer diagnosis with patients	X						X	1
discuss complex treatment scenarios with patients including discussion of all options, advantages and disadvantages and take informed consent	X						X	1
communicate effectively and skilfully	X						X	1
use skills of analysis and diagnostic synthesis, judgement and surgical planning pertaining to the conditions described in this module	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
incision biopsy of lesion (oral cavity / pharynx / larynx)				X			X	1
excision biopsy of lesion (oral cavity / pharynx / larynx)				X			X	1
FNA / core sample of cervical / parotid lymph node				X			X	1
local flap reconstruction (rotation / transposition / advancement)				X			X	1
examination under anaesthesia				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
selective / modified radical neck dissection				X			X	1
regional flaps				X			X	1

<b>ADVANCED</b>								
Should be able to perform								
radical or extended neck dissection				X			X	1
free flap surgery				X			X	1
reconstruction of aesthetic units (nose / eyelids / ears / lips) – see module 4 Reconstructive techniques of the head and neck : Advanced technical skills and procedures				X			X	1

Techniques for reconstruction of the head & neck	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the planning, execution and management of appropriate soft tissue reconstruction of head & neck defects.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
classification of flaps (random versus axial / muscle flap - Mathes and Nahai classification / type of tissue being transferred)		X				X	X	1
factors affecting outcome in flap surgery (patient related, operative, adjuvant therapy related)		X				X	X	1
principles of flap surgery (replace “like with like”, reconstructive units, back-up plan and “life boat”, donor site considerations)		X				X	X	1
principles of microsurgery		X				X	X	1
anatomy of perforators and angiosomes – relevant to planning of local, regional and distal flaps		X				X	X	1
anatomy of local, regional and free flaps suitable for head & neck reconstruction		X				X	X	1
advantages and disadvantages of local, regional and free flaps in the head & neck		X				X	X	1
appropriate use of local, regional and free flaps in the head & neck		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
relevant surgical anatomy and neurovascular supply of flaps used in head & neck reconstruction		X				X	X	1
pre-operative investigations for specific flaps		X				X	X	1
ability to interpret angiographic abnormalities when planning reconstruction		X				X	X	1
complications of autologous tissue reconstruction including donor site morbidity		X				X	X	1
post-operative flap monitoring techniques		X				X	X	1
airway management of the head & neck		X				X	X	1
stages of bereavement associated with loss of body image and the clinical and psychological supports that can be put in place to assist the patient cope with that loss		X				X	X	1
planning and prioritising treatment within the head & neck MDT setting		X			X	X	X	1,3
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
assessment of outcome								
long term outcomes of head & neck reconstruction		X				X	X	1
flap salvage and options following failure		X				X	X	1
outline the impact of disfigurement, the consequences of an altered appearance, what it involves psychologically and socially, and describe the impact of an individual’s body image on their life and that of their family		X				X	X	1
outline the process by which an individual can successfully adjust to disfigurement and explain how the multidisciplinary team can assist with that process		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focused history eliciting factors important for decisions regarding suitability / type of reconstruction	X						X	1
clinically assess the soft tissue defect	X						X	1
keep contemporaneous and appropriate record	X						X	1
demonstrate simple management techniques including use of appropriate dressings	X						X	1
plan both local and free flaps appropriately for defect	X						X	1
co-ordinate soft tissue reconstruction in conjunction with ablative team	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
counsel patient regarding advantages and disadvantages of reconstruction - specifically setting realistic expectations, reconstruction as a process, template in-patient stay and complications	X						X	1
take informed consent and participate in joint decision-making	X						X	1
manage patients in post-operative period	X						X	1
manage complications of surgery applicable to the clinic setting	X						X	1
use psychological assessment tools for evaluation of psychological needs (patient questionnaires)	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
clinically assess complex reconstructive requirements and make decisions on appropriate management	X						X	1
interpret investigations and formulate management plans	X						X	1
undertake patient-centered care with patient as partner in the process, providing realistic information and guiding patient decision-making regarding choices available and timing of those treatments	X						X	1
manage and lead multi-disciplinary teams in respect of provision of psycho-social care	X				X		X	1,3
arrange the care pathway that supports an individual to successfully adjust to disfigurement through giving the individual and family specific life-skills. These include the patient being provided with information about their condition and its treatment, developing a positive outlook/belief system, learning to cope with their feelings, exchanging experiences with others who’ve “been there” and social skills training to manage other people's reactions	X				X		X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
exposure of vessels				X			X	1
positioning of patient on operating table				X			X	1
protection of pressure areas				X			X	1
prevention of nerve injuries / neurapraxia				X			X	1
skin preparation, draping, antibiotic prophylaxis and thromboprophylaxis				X			X	1
selection / arrangement of appropriate level of post-operative care				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
pre-operative marking of patient				X			X	1
raising range of pedicled autologous flaps				X			X	1
in-setting of flap				X			X	1
harvesting vein graft				X			X	1

<b>ADVANCED</b>								
Should be able to perform:								
microvascular anastomoses				X			X	1
flap salvage for failing flaps				X			X	1
flap shaping techniques				X			X	1
flap revision techniques				X			X	1

<b>Reconstruction of specific head and neck sites</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the planning, execution, management and reconstruction of specific head and neck sub-units including eyelids, nose, lips, ears and scalp								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of tissues suitable for planning of local, regional and distal flaps to specific sites in the head & neck		X				X	X	1
vascular anatomy relevant to planning of local, regional and distal flaps to specific sites in the head & neck		X				X	X	1
recognise the appropriate use, advantages and disadvantages of local, regional and free flaps in reconstruction of specific sites in the head & neck		X				X	X	1
factors affecting outcome in flap surgery (patient-related, operative, adjuvant therapy-related)		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								1
airway management of the head & neck		X				X	X	1
ability to interpret angiographic abnormalities when planning reconstruction of specific sites in the head and neck		X				X	X	1
pre-operative investigations for specific flaps		X				X	X	1
complications of autologous tissue reconstruction including donor site morbidity		X				X	X	1
post-operative flap monitoring techniques		X				X	X	1
planning and prioritising treatment within the head & neck MDT setting		X				X	X	1,3
<b>ADVANCED</b>								
Should demonstrate knowledge of:							X	
long-term outcomes of head & neck reconstruction		X				X	X	1
assessment of outcome		X				X	X	1
flap salvage and options following failure		X				X	X	1
use of osseointegrated implants and head and neck prosthetics		X				X	X	1
effects of radiotherapy		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focused history eliciting factors important for decisions regarding suitability / type of reconstruction for a specific head and neck site	X						X	1
clinically assess specific head and neck defects	X						X	1
keep contemporaneous and appropriate records	X							1
effect simple wound management techniques including use of appropriate dressings		X					X	1
plan both local, regional and free flaps appropriate for specific defect		X					X	1
demonstrate soft tissue reconstruction in conjunction with ablative team		X					X	3,1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
discuss advantages and disadvantages of reconstruction - specifically setting of realistic expectation, reconstruction as a process, template in-patient stay and complications		X					X	1
understand importance of informed consent and joint decision making		X					X	1
take informed consent and joint decision making		X					X	1,3
manage complications of surgery in pre, peri and post-operative phases		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
clinically assess complex reconstructive requirements and make decisions on appropriate management for specific sites in the head and neck		X					X	1
interpret investigations to formulate management plan		X					X	1
manage tissues previously treated with radiotherapy		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
exposure of vessels				X			X	1
positioning of patient on operating table				X			X	1
protection of pressure areas				X			X	1
prevention of nerve injuries / neurapraxia				X			X	1
skin preparation, draping, antibiotic prophylaxis and thromboprophylaxis regimens				X			X	1
selection / arrangement of appropriate post-operative care				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
pre-operative marking of patient				X			X	1
raising local, regional and pedicled autologous flaps relevant to specific sites of the head and neck				X			X	1
in-setting of flap				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
treatment of specific sites of the head and neck following previous radiotherapy				X			X	1
salvage surgery of specific sites of the head and neck				X			X	1
microvascular anastomoses				X			X	1
flap salvage for failing flaps				X			X	1
flap revision techniques				X			X	1
use of osseointegrated implants and facial prosthetics				X			X	1

<b>Facial Reanimation</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Competence in the diagnosis of facial palsy and management by both static and dynamic procedures as well as non-surgical treatments								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
epidemiology		X				X	X	1

anatomy of the facial nerve		X				X	X	1
aetiological causes of facial palsy		X				X	X	1
prognostic factors and implications for patient treatment recommendations		X				X	X	1
range of reconstructive options		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
non-surgical treatments (Botox, biofeedback, electrical stimulation of facial musculature)		X				X	X	1
static sling procedures (tendon, fascia, artificial)		X				X	X	1
dynamic sling procedures (temporalis, masseter)		X				X	X	1
principles of facial nerve reconstruction (direct suturing, nerve grafting, cross facial nerve grafting)		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
free muscle transfer techniques (cross facial nerve grafting, gracilis, pectoralis minor, rectus abdominis)		X				X	X	1
reconstructive aesthetic techniques (endoscopic browlift, facelift, upper & lower blepharoplasties)		X				X	X	1
use of ancillary surgical techniques (autologous fat transfer, re-positioning parotid ducts etc)		X				X	X	1
cranial nerve transfers (hypoglossal, accessory)		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focused facial nerve related history eliciting factors localising site of injury	X						X	1
undertake competent facial nerve examination	X						X	1
initiate appropriate investigations (CT, MRI, EMG, nerve conduction studies)		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
interpret CT, MRI, EMG& nerve conduction studies,		X					X	1
assess and manage patients presenting with locally advanced disease		X					X	1
recognise where further investigations may be required and request these appropriately		X					X	1
develop and record management plan for the patient and discuss rationale for management of common scenarios with patients and colleagues		X					X	3,1
<b>ADVANCED</b>								
Should demonstrate ability to:								
undertake analysis and diagnostic synthesis, judgement and surgical planning pertinent to facial palsy		X					X	1
discuss complex treatment scenarios with patients including discussion of all options, advantages and disadvantages and take informed consent		X					X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
exploration, protection and identification of facial nerve branches				X			X	1
direct repair of facial nerve				X			X	1
nerve grafting of facial nerve				X			X	1
techniques of Botox injection of face, techniques of biofeedback and electrical stimulation of facial musculature				X			X	1
surgical access and identification of deep layers of the face				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
cross facial nerve grafting				X			X	1
insertion of static slings				X			X	1
dynamic slings (Temporalis, masseter)				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
free muscle tissue transfer techniques (gracilis, pectoralis minor, rectus abdominis)				X			X	1
cranial nerve transfers (hypoglossal, accessory)				X			X	1
ancillary reconstructive techniques (autologous fat transfer, re-positioning parotid ducts etc)				X			X	1
reconstructive aesthetic techniques (endoscopic browlift, facelift, upper & lower blepharoplasties)				X			X	1

Assessment and primary management lower limb injuries	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the initial combined management of patients with open lower limb fractures in the emergency department								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
resuscitation principles as defined by ATLS		X				X	X	1
applied anatomy, physiology, pathology and mechanisms of limb injury, blood supply of skin, fat and muscle		X				X	X	1
angiosomes of lower limb		X				X	X	1
classification of open fractures, including Gustilo classification		X				X	X	1
factors influencing fracture healing		X				X	X	1
timing and rationale for antibiotic use and timing of initial debridement		X				X	X	1
appropriate pre-operative investigations		X				X	X	1
role of other members of team including microbiologists, physiotherapy, occupational therapy		X				X	X	3,1
importance of specialist centres, MDT and interdisciplinary communication, especially with orthopaedic colleagues		X					X	3,1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
pathophysiology of degloving injuries and their classification		X				X	X	1
management of specific injuries e.g. crush and degloving		X				X	X	1
range, indications and principles of surgical options for soft tissue reconstruction: direct closure, skin graft, local and free flaps		X				X	X	1
options of bone fixation, including internal versus external fixation		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
role of major trauma centres		X					X	1
management of multiply injured patient		X					X	1
factors determining decision making in choice of flaps and tissue for soft tissue reconstruction		X					X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take a focused history for lower limb injury	X						X	1
clinically assess and undertake non-operative management of acute injury	X	X					X	1

recognise life-threatening injuries	X	X					X	1
examine to including assessment of severity of injury	X						X	1
assess vascular status	X						X	1
assess for the presence of compartment syndrome	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
examine neurological status of limb	X						X	1
apply the management algorithms pertinent to the conditions covered in this module		X					X	1
<b>ADVANCED</b>								
Should be able to demonstrate skills of analysis and diagnostic synthesis, judgement, surgical planning pertaining to lower limb injury		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
application of appropriate dressings in emergency room				X			X	1
reduction of fracture in emergency department				X			X	1
application of a plaster cast				X			X	1
<b>INTERMEDIATE</b>								
Should be able to measure compartment pressures and interpret results				X			X	1
<b>ADVANCED</b>								
Should be able to stabilise associated injuries and bleeding				X			X	1

<b>Debridement, stabilisation and compartment syndrome</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the debridement, stabilisation and assessment of wounds and the ability to make a surgical plan for future management. Management of compartment syndrome.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
principles of fracture management		X				X	X	1
anatomy of lower limb		X				X	X	1
on-table imaging techniques and their interpretation		X				X	X	1
safe access incisions		X				X	X	1
the importance of tissue sampling		X				X	X	1
temporary wound dressings		X				X	X	1
pathophysiology of compartment syndrome		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
anatomy of perforators		X				X	X	1
principles and management of fractures and the relevance to subsequent soft tissue reconstruction		X				X	X	1
monitoring and interpretation of results of raised compartment pressures		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
principles of bone debridement		X				X	X	1
microbiology of open fracture injuries		X				X	X	1
characteristics of defects that can be closed primarily at the initial debridement and the techniques available		X				X	X	1
controversies of delayed diagnosis of compartment syndrome		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assess fractures clinically		X					X	1
manage wounds in various locations on the lower limb		X					X	1
apply plaster splints				X			X	1
apply temporary dressings – negative pressure and antibiotic bead pouch				X			X	1
measure compartment pressures		X		X			X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
manage more complex fractures		X					X	1
formulate treatment plan for degloving injuries, especially multiplanar degloving		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to recognise those injuries that would benefit from primary amputation		X				X	X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
appropriate pre-wash and prep				X			X	1
systematic wound debridement under tourniquet control				X			X	1
wound extension along fasciotomy lines				X			X	1
application of temporary dressing				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
identification of tissues that can be preserved				X			X	1
adequately debride injured soft tissues to achieve a stable wound approaching elective conditions				X			X	1
release four muscle compartments in leg in cases of compartment syndrome				X			X	1
intraoperative planning of future soft tissue reconstruction in conjunction with orthopaedic team and ensure appropriate bone fixation to facilitate this				X			X	1
<b>ADVANCED</b>								
Should be able to perform amputation of non-salvageable limbs				X			X	1

<b>Soft tissue reconstruction</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the planning and execution of appropriate soft tissue cover of open tibial fractures								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of perforators and angiosomes – relevant to planning of local flaps		X				X	X	1
zone of injury		X				X	X	1

anatomy of free flaps suitable for lower limb reconstruction with the advantages and disadvantages of each, and the appropriate use of each option		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
options available for fracture fixation and tailoring soft tissue management accordingly		X				X	X	1
planning and prioritising treatment within an MDT setting		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
principles and detailed management of more complex injuries, including multilevel and bilateral lower limb injuries		X				X	X	1
the surgical management of bone and soft tissue reconstruction		X				X	X	1
principles of circular frames and bone transport		X				X	X	1
controversies of fasciocutaneous versus muscle flaps for soft tissue coverage of open fractures		X				X	X	1
angiographic abnormalities when planning reconstruction		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess soft tissue defects demonstrating recognition of injury patterns	X						X	1
use simple management techniques including use of appropriate dressings		X					X	1
use appropriate antibiotics at definitive wound closure		X					X	1
plan both local and free flap reconstruction appropriately for defect		X					X	1
co-ordinate soft tissue reconstruction in conjunction with orthopaedic team		X					X	3,1
<b>INTERMEDIATE</b>								
Should be able to:								
plan management algorithms for the common injuries covered in this module		X					X	1
plan logical step-by-step planning of complex cases in conjunction with orthopaedic surgeons		X					X	3,1
<b>ADVANCED</b>								
Should demonstrate ability to:								
plan management algorithms for the injuries covered in this module including complex injuries		X					X	1
plan management and reconstruction for the more complex soft tissue defect in patients requiring distraction lengthening of the skeleton		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
direct closure				X			X	1
skin graft				X			X	1
temporary dressings – negative pressure and antibiotic bead pouch				X			X	1
exposure of recipient vessels in leg				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
nerve repair (direct)				X			X	1
planning and raising appropriate fasciocutaneous flaps, both proximally and distally-based				X			X	1
raising gastrocnemius muscle flap for proximal third/knee defects				X			X	1
performing most steps in the raising and anastomosing of free flaps				X			X	1
harvesting of vein graft				X			X	1
exposure of recipient vessels in leg				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
raising and anastomosing ALT, LD and radial forearm free flaps under supervision				X			X	1
harvesting a free fibula flap				X			X	1
nerve repair using sural nerve graft				X			X	1
using interposition vein grafts to perform anastomoses outside zone of injury				X			X	1

Vascular injuries and amputation	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of all vascular injuries to the lower limb								
Acquire competence in the recognition and management of patients requiring early and delayed amputations								
Acquire understanding of the impact of amputation level on subsequent rehabilitation and detailed knowledge of the rehabilitation regimens for patients requiring amputation								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of vasculature, including well-known variations e.g. peronea magna		X				X	X	1
response of vessels to injury and repair		X				X	X	1
primary management of vascular injuries and the devascularised limb		X				X	X	1
appropriate use of investigations		X				X	X	1
timing of surgery for acutely ischaemic limb		X				X	X	1
indications for amputation and the levels		X				X	X	1
rehabilitation of amputation patients		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
role of vascular shunts		X				X	X	1
role of angiography		X				X	X	1
techniques of vessel repair		X				X	X	1
challenges for primary amputation		X				X	X	1
how to deal with the nerves during amputation and the need for a myodesis		X				X	X	1
role of adductor myodesis for transfemoral amputation		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
methods for secondary amputation for infection, failed reconstruction etc.		X				X	X	1
how to manage the revascularised limb post-operatively		X				X	X	1
pharmacological and non-pharmacological methods for the relief of pain, including phantom limb and neuropathic pain		X				X	X	1
requirements of a good amputation stump to allow proper prosthesis fitting		X				X	X	1
role of fillet of limb (foot) technique		X				X	X	1
knowledge of need to reconstruct large veins proximal to trifurcation		X				X	X	1

<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
control bleeding		X					X	1
interpret angiograms		X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
clinically assess and prepare management algorithms for the conditions covered in this module		X					X	1
counsel a patient for limb amputation		X					X	3,1
<b>ADVANCED</b>								
Should demonstrate ability to								
clinically assess complex injuries and make decisions on subsequent management		X					X	1
interpret investigations and formulate management plan in secondary amputation e.g. CT, angiography etc.		X					X	1
manage iatrogenic vessel injury		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
exposure of vessels				X			X	1
insertion of shunts				X			X	1
harvesting vein graft				X			X	1
application of skin graft to amputation stump if required				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
vein graft for vascular injury				X			X	1
uncomplicated transtibial amputation				X			X	1
uncomplicated through knee and transfemoral amputation				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
repair of complex vessel defect				X			X	1
continuation to suitable reconstruction of revascularised limb if appropriate				X			X	1
modification of skin flaps for amputation due to complex soft tissue injury				X			X	1
fillet of foot for amputation where soft tissue is deficient				X			X	1

<b>Complications</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of both bone and soft tissue complications and recognition of the need for multidisciplinary management								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
consequences of infection following trauma and surgery		X				X	X	1
complications of free flap surgery		X				X	X	1
complications following the use of local flaps		X				X	X	1
those complications which require referral to specialist centres		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of the management of all complications following soft tissue reconstruction including recognition of skeletal complications		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
basic science and evidence-base underpinning the management of complications		X				X	X	1
orthopaedic principles of managing delayed union and non-union		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
undertake clinical assessment of complications and in particular recognise a compromised free or local flap, in conjunction with general patient parameters	X	X					X	1
use relevant adjunctive techniques such as ultrasound		X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
clinically assess and plan management algorithms for the conditions covered in this module		X					X	1
use a range of free flap monitoring techniques		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
undertake detailed assessment of, and advise on, complex problems including reconstruction/salvage of the limb if primary reconstruction has failed		X					X	1
analyse and advise on modifications needed to standard therapy regimens to address specific complications		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
washout of haematoma/collection				X			X	1
application of leeches to flap tip with venous congestion				X			X	1
simple debridement of non-viable flap and appropriate application of temporary dressing				X			X	1
<b>INTERMEDIATE</b>								
Should be able to take back free flap to theatre with consultant assistance.				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
salvage or amputation of limb following flap failure				X			X	1
bone debridement in conjunction with orthopaedic surgeons				X			X	1
raising flaps to assist orthopaedic team for skeletal revision surgery including cancellous bone graft				X			X	1

<b>Paediatric injuries and outcome measures</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of children with lower limb injuries								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
principles of management of children’s injuries – skeletal and soft tissue – and appreciate differences from adults		X				X	X	1
normal growth and development, in particular the importance of growth plates		X				X	X	1

outcome measures such as Sickness Impact Profile (SIP)		X				X	X	1
short Form-36 (SF36) and Enneking score. Recognition of the need for specialist centres for revision surgery		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
management of open lower limb injuries in children		X				X	X	1
how to apply outcome measures to practice and interpret published work, including limitations		X					X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
management of paediatric lower limb injuries and the specific bone and soft tissue considerations needed with regard to growth		X					X	1
controversies regarding paediatric open lower limb injuries		X					X	1
how to plan and undertake an outcome study and audit outcomes for lower limb trauma		X					X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess the injured child	X						X	1
communicate and liaise with parents	X	X					X	3,1
work and communicate within the relevant multidisciplinary team (MDT)		X					X	3,1
recognise non-accidental injury	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to plan management algorithms for the paediatric patient with lower limb injury.		X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
use skills of analysis and diagnostic synthesis, judgement, and surgical planning		X					X	1
in respect of the child, to advise regarding timing of reconstruction and effect of growth on reconstructive surgery previously performed		X					X	1
provide detailed advice on the treatment pathway, including interpretation of specialist imaging, within the context of the relevant MDT		X					X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to stabilise the child with lower limb injury for safe transfer to specialist centre		X					X	1
<b>INTERMEDIATE</b>								
Should be able to perform primary debridement and application of temporary wound dressings in theatre				X			X	1
<b>ADVANCED</b>								
Should be able to perform appropriate reconstruction of soft tissue defect including all the techniques available				X			X	1

<p><b>Basic Sciences – including embryology, development, anatomy, physiology and genetics, stem cell biology, biology of scarring and wound healing. Management of abnormal scars</b></p> <p><b>Breast assessment – examination, investigations : including imaging and biopsy techniques.</b></p>	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in basic sciences pertinent to the breast and competence in clinical diagnosis and investigation								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
topographical and segmental anatomy of the breast, vascular neural and lymphatic supply/drainage of breast, anatomy of chest wall, abdomen and axilla		X				X	X	1
lymphatic system physiology		X				X	X	1
embryology of breast		X				X	X	1
endocrine physiology and endocrine effects on the breast at puberty, pregnancy, lactation, menopause and in mastalgia		X				X	X	1
effect of hormonal therapeutics on the breast (OCP, HRT, selective estrogen-receptor modulators & aromatase inhibitors)		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
developmental abnormalities - accessory nipples, accessory breast tissue		X				X	X	1
concept and limitations of triple assessment		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
breast aesthetics (including breast measurements), breast asymmetry, breast hyperplasia, hypoplastic breast syndromes including Poland’s syndrome, chest wall deformities, associated limb abnormalities		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take a focused breast history related to any breast symptom	X						X	1
examine the breast and axilla	X						X	1
request component investigations of triple assessment, and ensure that results are discussed at breast MDT		X					X	1
accurately record diagnostic findings		X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
arrange non-standard investigations required to assess breast symptoms following inconclusive initial results		X					X	1
interpret mammogram and ultrasound findings		X				X	X	1
interpret significance of cytological and histological biopsy reports		X				X	X	1
plan treatment algorithms for conditions in this module		X					X	1
<b>ADVANCED</b>								
Should demonstrate skills of analysis and diagnostic synthesis, judgement, and surgical planning		X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
free-hand and ultrasound guided lesion FNA				X			X	1
free-hand core biopsy				X			X	1
punch biopsy of skin / nipple				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
surgical excision biopsy				X			X	1
ultrasound guided core biopsy				X			X	1
<b>ADVANCED</b>								
Should be able to perform vacuum assisted mammatome biopsy				X			X	1

Breast Cancer	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis, assessment and management of all types of breast cancer. Includes management of premalignant conditions of the breast and screening for breast cancer.								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
epidemiology, histological classification and sub-types of invasive disease and DCIS		X				X	X	1
staging of breast cancer (UICC – TNM)		X				X	X	1
prognostic factors (tumour and patient-related) and implications for patient treatment recommendations breast cancer MDT dataset		X				X	X	1
male breast cancer		X				X	X	1
development of the NHSBSP and current structure		X				X	X	1
breast screening delivery, patient flow, quality assurances and criticisms/limitations associated with the NHSBSP		X				X	X	1
principles of screening programmes within a population		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
indications for primary medical therapy		X				X	X	1
rationale for neo-adjuvant chemotherapy / endocrine therapy including evidence and limitations		X				X	X	1
indications and contraindications for mastectomy and BCS and appropriate selection of axillary surgery (SLNB versus ALND)		X				X	X	1
oncoplastic techniques (therapeutic mastoplasty / IBR/SSM & NSM)		X				X	X	1
complications of surgery and their management		X				X	X	1
adjuvant therapies including chemotherapy, radiotherapy, endocrine therapy and biological therapies (NICE clinical guidelines 80 & 81), specifically common regimes, indications, complications and side effects and supporting evidence		X				X	X	1
cancer biology – specifically with regards to hormonal and growth factors / receptors and tumour metastasis		X				X	X	1
palliative treatment options for breast cancer		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
breast cancer genetics, specifically identified gene abnormalities and conditions associated with breast cancer (e.g. BRCA 1&2, TP53, Cowdens syndrome, Bananyan Zonanan Syndrome, CHEK2, HNPCC etc)		X				X	X	1
relevance of family history in breast cancer, the role of the family history clinic and specific referral criteria. (NICE clinical guideline 41)		X				X	X	1
models for estimating individual risk (Gail model, Bodicea, Klaus, Tyrer-Cuzick)		X				X	X	1
non-surgical and surgical risk reduction strategies and supporting evidence		X				X	X	1
management and follow-up of non-malignant high risk breast lesions		X				X	X	1
current and important adjuvant and neo-adjuvant historical trials (clinical/surgical, chemotherapy, radiotherapy and hormonal)		X				X	X	1
pregnancy associated breast cancer and its management		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take a focussed breast history including presenting complaint, family history, elicit risk factors and identify co-morbidities important in treatment planning	X						X	1
examine the breast, nodal basins and relevant distant sites where metastasis suspected	X						X	1
initiate appropriate initial investigations as part of triple assessment	X						X	1
recognise the importance of, and work effectively within, the breast multidisciplinary team	X				X		X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
interpret mammogram and sonographic findings	X	X					X	1
recognise uncommon presentations of breast cancer (Pagets disease, inflammatory carcinoma)	X						X	1
assess and manage patients presenting with locally advanced disease								
recognise where further mammographic views or MRI may be required and request these appropriately	X						X	1
develop and record management plan for the patient and discuss rationale for management of common scenarios with patients in conjunction with dedicated Breast Care Nurse	X				X		X	1,3
<b>ADVANCED</b>								
Should demonstrate ability to:								
interpret MRI findings and use these in treatment planning	X	X					X	1
undertake skilful discussion of cancer diagnosis with patients	X	X					X	1
discuss complex treatment scenarios with patients including discussion of all options, advantages and disadvantages and take informed consent	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
appropriate pre-op skin prep and draping and antibiotic prophylaxis				X			X	1
palpable excision biopsy, palpable wide local excision				X			X	1
sentinel lymph node biopsy, dual modality and blue dye only				X			X	1
node sample in centres where SNB not employed				X			X	1
simple mastectomy				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
wire/radiologically-localised excision of impalpable lesion				X			X	1
skin-sparing mastectomy				X			X	1
axillary lymph node dissection (level 3) both primary and delayed				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
axillary lymph node dissection for disease recurrence				X			X	1
skin and nipple preserving mastectomy				X			X	1
therapeutic mastoplasty, IBR procedures appropriate to parent specialty				X			X	1

Benign breast conditions	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis and management of benign breast conditions								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
pathophysiology and presentation of mastalgia, fibroadenoma, breast cysts, papilloma, benign nipple discharge, duct ectasia, periductal mastitis, mammary duct fistula and breast sepsis (lactational and non-lactational) including microbiology		X				X	X	1
Phylloides tumour		X				X	X	1
gynaecomastia		X				X	X	1
involutional change of the breast		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
relationship between systemic disorders, medication and lifestyle factors with breast symptoms (hyper-prolactinaemia, gynaecomastia, OCP, smoking)		X				X	X	1
benign pregnancy and lactational lesions of the breast (lactational adenoma, galactocoele)		X				X	X	1
<b>ADVANCED</b>								
Should be able to describe association between specific high-risk benign breast conditions with associated increased breast cancer risk		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focussed breast history, eliciting factors associated with benign breast disease	X						X	1
examine breast and axilla	X						X	1
examine systems associated with benign breast disease (endocrine, abdominal)	X						X	1
initiate appropriate investigations / triple assessment where indicated	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
formulate management plan of benign breast pathology included in this module	X						X	1
interpret investigation findings and understand how they differ from findings in malignant disease	X						X	1
<b>ADVANCED</b>								
Should demonstrate skills of analysis and diagnostic synthesis, judgement and surgical planning for the conditions specified in this module.	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
free hand aspiration / surgical drainage of breast abscess				X			X	1
aspiration of cyst				X			X	1
benign lump excision				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
nipple eversion techniques				X			X	1
wire / image guided excision of lesion				X			X	1
ultrasound guided aspiration abscess				X			X	1
microdochectomy,				X			X	1
major duct excision				X			X	1
fistula surgery				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
ductoscopy				X			X	1
minimal access surgery				X			X	1
nipple eversion techniques				X			X	1

Breast reconstruction – Implant based techniques	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in implant based reconstruction including indications, technique and management of complications								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
indications and contraindications to implant based reconstruction		X				X	X	1
surgical anatomy of implant / expander based reconstructive procedures		X				X	X	1
alloplastic materials and tissue interface		X				X	X	1
dermal xenografts		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
advantages and disadvantages in comparison to autologous based reconstruction		X				X	X	1
range of devices available		X				X	X	1
implant infection and management		X				X	X	1
implant extrusion		X				X	X	1
capsular contracture		X				X	X	1
aetiology, classification, role of DXT and management, - historical development and controversies		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
staged procedures – single and two stage: advantages and disadvantages		X				X	X	1
adjunctive biological technologies		X				X	X	1
outcome of implant based reconstruction		X				X	X	1
relevant literature		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assess suitability for implant based reconstruction and alternatives	X						X	1
identify pre-operative factors which can be optimized prior to surgery (smoking, systemic disease)	X	X					X	1

<b>INTERMEDIATE</b>								
Should demonstrate ability to consent patients describing full range of potential complications, and set realistic expectations	X	X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to select appropriate implants / expanders for patients, recognise post-operative complications and formulate associated management plans	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to:								
orient devices and prepare appropriately				X			X	1
explain issues regarding antibiotics, drains, changing gloves				X			X	1
use electric operating tables				X			X	1
protect pressure areas				X			X	1
prevent nerve injuries / neurapraxia				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
creation and closure of sub-pectoral pocket				X			X	1
subpectoral pocket including total sub-muscular cover				X			X	1
two stage reconstruction using TEX and subsequent exchange for FVI.				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
preoperative marking of patient				X			X	1
single staged reconstruction using FVI and dermal xenograft sling				X			X	1
inferior dermal sling to achieve implant cover				X			X	1
identification and correction of aesthetic deficiencies as secondary procedures				X			X	1
nipple reconstruction techniques (see under Module 5)				X			X	1

<b>Reconstruction – Autologous tissue based techniques</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in autologous tissue based breast reconstruction including indications, technique and management of complications								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
classification of flaps (random versus axial / muscle flap - Mathes and Nahai / type of tissue being transferred)		X				X	X	1
factors affecting outcome in flap surgery (patient related, operative, adjuvant therapy related)		X				X	X	1
principles of flap surgery (replace “like with like”, reconstructive units, back-up plan and “life boat”, donor site considerations)		X				X	X	1
principles of microsurgery		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
relevant surgical anatomy and neurovascular supply of flaps used in breast reconstruction (LD, Abdominal wall, I/S GAP, TUG, TDAP)		X				X	X	1
concept of angiosomes, specifically in reconstructions using abdominal free flaps		X				X	X	1
indications and contraindications for IBR and DBR – pre-operative factors to be considered in decision making		X				X	X	1
tissue effects of DXT		X				X	X	1
psychological impact of IBR and DBR - advantages and disadvantages in comparison with implant based reconstruction		X				X	X	1
pre-operative investigations for specific flaps		X				X	X	1
complications of autologous tissue reconstruction including donor site morbidity		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
long term outcomes of breast reconstruction		X				X	X	1
assessment of outcome (clinical / PROMs)		X				X	X	1
reconstruction in prophylactic surgery		X				X	X	1
partial breast reconstruction		X				X	X	1
nipple reconstruction techniques		X				X	X	1
flap salvage and options following failure		X				X	X	1
lipomodelling in reconstruction (indications, complications and controversies – stem cells, mammographic follow-up)		X				X	X	1
relevant literature		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take history eliciting factors important for decisions regarding suitability / type of autologous reconstruction	X						X	1
maintain clear documentation in the notes in the post-operative period	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess suitability for IBR vs DBR	X						X	1
discuss advantages and disadvantages of reconstruction - specifically setting of realistic expectation, reconstruction as a process, template in-patient stay and complications	X						X	1
describe importance of informed consent and joint decision making	X						X	1
manage complications of surgery in clinic (wound, seroma)	X						X	1
manage patients appropriately in post-operative period	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
identify patients not suitable for autologous reconstruction (physical and psychological contraindications)	X						X	1
undertake appropriate post-operative assessment of (free) flaps	X						X	1
plan algorithms for managing complications	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
positioning of patient on operating tissue				X			X	1
protection of pressure areas				X			X	1
prevention of nerve injuries / neurapraxia				X			X	1
skin preparation, draping and antibiotic prophylaxis				X			X	1
selection / arrangement of appropriate level of post-operative care				X			X	1
use of electric operating tables				X			X	1

<b>INTERMEDIATE</b>								
Should be able to perform:								
pre-operative marking of patient				X			X	1
raising pedicled autologous flaps including latissimus dorsi				X			X	1
in-setting of flap				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
preoperative marking up of patient				X			X	1
nipple reconstruction techniques (nipple sharing procedures, local flaps, tattooing)				X			X	1
raising pedicled autologous TRAM or DIEP flap				X			X	1
free-flap techniques				X			X	1
microvascular anastomoses				X			X	1
flap salvage for failing flaps				X			X	1
flap shaping techniques				X			X	1
flap revision techniques				X			X	1
lipomodelling for correction of resectional defects				X			X	1
lipomodelling in breast reconstruction				X			X	1

<b>Pelvic reconstruction</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the principles of management including reconstruction of the pelvic defect								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
types and basic management of various types of pelvic/genito-urethral malignancy		X				X	X	1
effects of gender on defect		X				X	X	1
principle of management of malignancy of pelvic origin		X				X	X	1
role of the MDT		X			X	X	X	1,3
range of flaps and techniques available for reconstruction		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of techniques available for pelvic defect reconstruction including:								
assessment of the nature of the commoner partial defects and the most appropriate flaps		X				X	X	1
assessment of total perineal defect and the main types of flap.		X				X	X	1
pros and cons of various flaps for various defects		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of techniques available for specific aspects of pelvic and perineal reconstruction such as:		X				X	X	1
penile amputation for carcinoma		X				X	X	1
vulval reconstruction with fasciocutaneous flaps		X				X	X	1
coverage of exposed testis following Fourniers		X				X	X	1
urethral reconstruction options following malignancy		X				X	X	1
trauma, including flap, FTSG, transplantation of urethra, tubed bladder wall		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Ability to demonstrate:								
working within an MDT and the ability to assess the psychological state of the patient and possible size/nature of the defect prior to resection	X				X		X	1,3
<b>INTERMEDIATE</b>								
Ability to demonstrate:								
the skills to arrange patient-centered care with patient as partner in the process (depending on age of patient), providing realistic information and guiding patient decision-making regarding choices available and timing of those treatments	X						X	1
<b>ADVANCED</b>								
Ability to manage and lead:								
multi-disciplinary teams in respect of provision of psycho-social care. Be able to arrange the care pathway that supports an individual and his/her family to successfully adjust to disfigurement and functional problems through giving the individual and family specific life-skills. These include the patient being provided with information about their condition and its treatment, developing a positive outlook/belief system, learning to cope with their feelings, exchanging experiences with others who’ve “been there” and social skills training to manage other people's reactions	X				X		X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
raising local flaps				X			X	1
use of quilted SSG for penile amputation				X			X	1
raise and deal with donor site for SSG and FTSG including BUMG				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
elevation of complex flaps including, Lotus flap, Singapore flap, Inferiorly based TRAM and VRAM, SIEA flap and gracillis flap				X			X	1
<b>ADVANCED</b>								
Should be able to perform specific operations for perineal reconstruction such as:				X			X	1
penile amputation for carcinoma		X		X			X	1
urethral reconstruction for stricture or trauma		X		X			X	1
vaginal reconstruction following malignancy		X		X			X	

<b>Basic Sciences &amp; Skin assessment</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the development, anatomy and physiology of the skin in relation to its surgery								
Acquire competence in the diagnosis, use of imaging and management of suspicious skin lesions								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of the skin-epidermal and dermal layers and appendigeal structures		X				X	X	1
embryology of the skin		X				X	X	1
histopathological appearance of skin		X				X	X	1
anatomy of the body surface, in particular the head and neck, hands, nails and feet		X				X	X	1

vascular, neuronal and lymphatic supply / drainage of the head & neck, trunk and limbs, blood supply of the skin		X				X	X	1
diagnostic imaging of skin neoplasia X-rays, CT, MRI, US, PET-CT, and imaging assisted diagnostic biopsy		X				X	X	1
standard skin stains used for histology		X				X	X	1
origin of stains used and for what purpose		X				X	X	1
immunocytochemistry and cytogenetic techniques		X				X	X	1
common benign skin disorders-hidradenitis suppurativa, epidermal cysts, lipomas, vascular and congenital malformations		X				X	X	1
melanocytic naevi including giant, actinic lesions and epidermal/dermal lesions etc., risks of malignant transformation in chronic lesions, giant melanocytic naevi and Marjolin’s ulcers		X				X	X	1
specific history and diagnostic features (clinical and non-clinical) of benign skin lesions (pigmented and non-pigmented), dysplastic naevi, lentigo maligna, melanoma and non-melanoma skin cancers (basal cell carcinoma and squamous cell carcinoma), dermatofibroma, keratoacanthoma, pilomatrixoma, actinic keratoses, Bowen’s disease		X				X	X	1
clinical features of dermatitis artefacta, folliculitis, pyogenic granuloma, inflammatory skin conditions (hidradenitis and acne vulgaris), fungal skin lesions, lentigines, angiomata		X				X	X	1
difference between telangiectasia and spider naevi		X				X	X	1
chronic wounds and pressure sores		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
anatomy of special sites, the pelvis, epitrochlear and popliteal fossa, the triangular space of the back, the axilla, head and neck lymph node basins		X				X	X	1
anatomy and access for diagnostic biopsies when required		X				X	X	1
concepts and limitations of diagnostic techniques, dermoscopy, mapping biopsies, frozen sections		X				X	X	1
range, indications and principles of surgical options for surgical ablation of tumours of the skin		X				X	X	1
staged histological clearance		X				X	X	1
sentinel node biopsy		X				X	X	1
the role of the skin MDT		X			X	X	X	1,3
diagnosis of lesions at difficult sites, subungual, large facial lesions, mucosal lesions, metastatic lesions		X				X	X	1
the range of dressings for open skin lesions/wounds		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
anatomy in particular for block dissections of the axilla, inguinal, iliac and ilioinguinal regions		X				X	X	1
functional and surgical anatomy of the face, head and neck		X				X	X	1
the surgical options for reconstruction of particular units of the head & neck (nose / eyelids / ears / lips), the trunk, the upper lower and lower limb		X				X	X	1
the range of dressings available for complex wounds/ulcers		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focused skin history related to any skin lesion and skin symptoms	X						X	1
use the magnifying glass, lighting, dermoscopy	X						X	1
plan non-operative management of small open wounds	X						X	1
use non-operative methods of hemostasis in the acutely bleeding wound/ulcer	X						X	1
examine of the head & neck, upper limb, lower limb, abdomen and pelvis	X						X	1
assess lesions on the face, head and neck, hand, arm, trunk and lower limb	X						X	1
examine regional lymph nodes	X						X	1
organise discussion of cases at clinical	X						X	1
accurately record diagnostic findings	X						X	1
use the current minimum dataset for skin cancers	X						X	1
use current databases and audit and peer review tools according to published requirements and guidelines	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess the chronic ulcer/wounds	X						X	1
interpret, CT, PET-CT and MRI scans	X	X					X	1
interpret and discuss cytological and histological biopsy reports	X	X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
interpret any scans performed in particular PET, PET-CT and lymphoscintigraphy	X	X					X	1
assess and formulate management plan for the large complex wound	X						X	1
formulate appropriate and timely management, investigations, treatment and follow up plan for a patient in respect of all types of benign and malignant skin lesions	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
free-hand and ultrasound guided lesion biopsy				X			X	1
FNA of suspected lesions, punch biopsy				X			X	1
harvesting of cells for cytological examination for fungus or malignancy				X			X	1
aspiration of seromas or cystic skin lesions				X			X	1
excision biopsy of undiagnosed skin lesions smaller than 1cm in size including those suspicious for malignancy and direct closure techniques				X			X	1
application of the appropriate dressings in open wounds				X			X	1
application of the appropriate dressings in infected skin wounds				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
surgical incision / excision biopsy of lesions at difficult sites (any size if periorbital, nasal, sole of the foot or hands and larger lesions on the pretibial region)				X			X	1
biopsy of subungual lesions				X			X	1
use of staged histological clearance				X			X	1
application of a negative pressure dressing				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
sentinel lymph node biopsy to include interpretation of result				X			X	1
surgical incision / excision biopsy of large suspicious skin lesions (greater than 1cm in size) including large facial lesions				X			X	1

Primary treatment of Skin-related neoplasia	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis, assessment and management of all types of primary skin-related neoplasia								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
epidemiology		X				X	X	1
histological classification (basal cell carcinoma / squamous cell carcinoma / Melanoma / Merkel cell/ porocarcinoma/ adnexal and pre-cancerous lesions		X				X	X	1
potential differential diagnosis skin lesions		X				X	X	1
staging of skin cancer (SCC and melanoma), (histological classifications, TMN, AJCC and current)		X				X	X	1
prognostic factors (tumour and patient related) and implications for patient treatment recommendations		X				X	X	1
implications of the occupational, family history, sun exposure history and immunosuppression		X				X	X	1
principles of screening programmes within a population		X				X	X	1
genetic counselling and referral indications		X				X	X	1
margins of excision for different histological types of basal cell carcinomas, Squamous cell carcinomas, Bowen’s disease, in-situ disease, dermatofibroma and benign dysplastic skin lesions.		X				X	X	1
peer review and NICE guidelines in treatment of melanoma and non-melanoma skin cancers (melanoma, SCC, Sarcoma, Bowen’s, actinic keratoses, Kaposi’s sarcoma and BCC’s) in particular margin recommendations,		X				X	X	1
the role of the MDT		X			X	X	X	1,3
peer review and MDM documentation		X			X	X	X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
margins of excision of different stages of melanoma, porocarcinoma, Merkel Cell carcinoma, Dermatofibroma sarcoma Protuberans, fibrosarcoma and suprafascial sarcoma		X				X	X	1
indications for non-surgical treatment (Photodynamic therapy-PDT, Cryotherapy, laser and topical therapies)		X				X	X	1
indications for sentinel lymph node biopsy and other prognostic investigations		X				X	X	1
adjuvant therapies including chemotherapy, radiotherapy, endocrine therapy and biological therapies particularly for melanoma		X				X	X	1
cancer biology – specifically with regards to hormonal and growth factors / receptors and tumour metastasis		X				X	X	1
palliative treatment options for skin cancer		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
association between specific high risk benign skin conditions with associated increased skin cancer risk		X				X	X	1
genetic conditions in skin cancer		X				X	X	1
melanoma tumour biology		X				X	X	1
controversies that have existed around sentinel lymph node biopsy, its history, origins and basis of sentinel lymph node biopsy		X				X	X	1
theories of melanoma spread - incubator versus marker theory		X				X	X	1
important adjuvant and neo-adjuvant historical and current national and international trials (clinical/surgical, chemotherapy, radiotherapy, laser, hormonal and biological)		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focused skin related history	X						X	1
elicit factors associated with benign and malignant skin neoplasia such as familial factors, sun exposure and mechanism of sun damage and skin types	X						X	1
examine head & neck and truncal lymph node basins	X						X	1
initiate appropriate investigations, use diagnostic techniques of clinical features, the diagnostic templates eg. ABCDE (asymmetry, borders, colour, diameter and evolving)	X						X	1
undertake dermoscopy and methods of recording lesion e.g. photography, diagrams for medicolegal and follow up reasons	X						X	1
work effectively within the skin cancer and allied speciality multidisciplinary teams, (eg head and neck MDM)	X				X		X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess and manage patients presenting with locally advanced disease	X						X	1
recognise pathological features of common skin cancers – BCC, SCC and melanoma	X						X	1
interpret lymphoscintigraphy, CT, MRI & PET scans	X						X	1
recognise where further pathology or radiology may be required and request these appropriately	X						X	1
develop and record management plan in line with peer review requirements and discuss rationale for management of common scenarios with patients and colleagues	X						X	1
communicate skilfully	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
interpret FNA/USS and distinguish a primary pigmented lesion from a primary melanoma or a metastatic melanoma	X	X					X	1
formulate management plan using skills of analysis, diagnostic synthesis and judgement	X						X	1
discuss complex treatment scenarios with patients including discussion of all options	X						X	1
take informed consent detailing advantages and disadvantages of proposed treatment	X						X	1
discuss a cancer diagnosis with patients	X						X	1
advanced communication skills, breaking bad news, giving prognostic information to the patient	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
excision biopsy of lesion and incision biopsy of skin lesions-when indicated				X			X	1
Fine Needle Aspiration-FNA / core sample of lymph nodes				X			X	1
wider excision of skin tumours with the advised margins on the trunk, leg and arm				X			X	1
local flap reconstruction (rotation / transposition / advancement)				X			X	1
optimum placement of incisions allowing for possible secondary surgery and future block dissections				X			X	1
explain the rationale for use of split and full thickness skin grafts and artificial skin replacements				X			X	1
pre-op skin prep and draping and antibiotic and venous thromboembolism prophylaxis				X			X	1
node sample in centres where sentinel lymph node biopsy is not employed				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
wider excision of lesions with the advised margin on the skin of the head and neck, face, genitalia and hand				X			X	1
head and neck, truncal and limb sentinel lymph node biopsy, - level I, II and III axillary dissections and inguinal block dissection				X			X	1
regional flaps – various including rotational, advancement, axial pattern				X			X	1

<b>ADVANCED</b>								
Should be able to perform:				X			X	1
pelvic or head and neck block dissection				X			X	1
reconstruction with regional and distant flaps				X			X	1
free flap surgery				X			X	1
reconstruction of aesthetic units (nose / eyelids / ears / lips) and special sites – nose, digits, eyes, genitalia and ears				X			X	1
oculoplastic techniques				X			X	1

Treatment of recurrent and chronic skin tumours	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the diagnosis, assessment, investigation and management of all types of recurrent and metastatic skin cancers								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
epidemiology and genetics of skin		X				X	X	1
basic understanding of familial syndromes		X				X	X	1
genes/oncogenes associated with skin cancer		X				X	X	1
margins of excision for metastatic lesions including national guidance		X				X	X	1
types of cancer – recurrences, new primaries, related malignancies		X				X	X	1
immunosupressed patients		X				X	X	1
syndromic patients, ie, Gorlin’s, Cowden’s, polyposis coli, melanosis, xeroderma pigmentosum, giant melanocytic naevi, skin conditions in immunocompromised patients		X				X	X	1
TNM Staging of skin cancer		X				X	X	1
prognostic factors (tumour and patient related) and implications for patient treatment recommendations		X				X	X	1
rationale and types of imaging for prognostic and staging information		X				X	X	1
biopsies, FNA, USS, X-Ray, CT, MRI, PET-CT, SPECT-CT and SNB		X				X	X	1
cancer network guidelines in treatment of recurrent skin cancers		X				X	X	1
functioning of the MDT,		X			X	X	X	1,3
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
indications for non-surgical treatment		X				X	X	1
anatomy and techniques for excision and closure of block dissections		X				X	X	1
adjuvant therapies including chemotherapy, radiotherapy, endocrine therapy and biological therapies		X				X	X	1
Mohs micrographic surgery, isolated limb infusions, ECT, isolated limb perfusion, CO2 laser ablation and minimally invasive techniques including laparoscopic and robotic surgery		X				X	X	1
Staged Histological Clearance (SHC), isolated limb infusions, ECT, isolated limb perfusion, CO2 laser ablation and minimally invasive techniques including laparoscopic and robotic surgery		X				X	X	1
cancer biology – specifically with regards to hormonal and growth factors / receptors and tumour metastasis		X				X	X	1
palliative treatment options for the skin cancer patient		X				X	X	1
management of the complex wound		X				X	X	1
hospice care		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of								
appropriate use of and pitfalls of frozen section,		X				X	X	1
association between specific high risk benign skin conditions with associated increased skin cancer risk		X				X	X	1
important adjuvant and neo-adjuvant historical and current national and international trials (clinical/surgical, chemotherapy, radiotherapy, hormonal and biological)		X				X	X	1
role of Human Papilloma Virus-HPV, in cancer aetiology		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
take focused skin related history	X						X	1
elicit factors associated with malignant non-skin related neoplasia	X						X	1
examine skin of entire body surface for additional primary tumors	X						X	1
examine all sites for regional lymphadenopathy	X						X	1
initiate appropriate investigations	X	X					X	1
work effectively within the skin cancer multidisciplinary team	X				X		X	1,3
manage the non-operative aspects of the chronic wound including pressure sores	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
interpret CT, MRI & PET scans	X	X					X	1
assess and manage patients presenting with locally advanced disease	X						X	1
recognise where further pathology or radiology may be required and request these appropriately	X						X	1
develop and record management plan for the patient and discuss rationale for management of common scenarios with patients and colleagues	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
formulate management plan using skills of analysis and diagnostic synthesis, judgement in particular for the patient with multiple co-morbidities	X						X	1
discuss complex treatment scenarios with patients including discussion of all options, advantages and disadvantages and take informed consent	X						X	1
discuss a skin cancer diagnosis and prognosis with patients	X						X	1
communicate skilfully with patients and with other members of the clinical team	X				X		X	1,3
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
incision biopsy of lesions				X			X	1
excision biopsy of lesions				X			X	1
FNA / core sample of lymph nodes				X			X	1
undertaking local flap reconstruction (rotation / transposition / advancement)				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
cervical sentinel lymph node biopsy				X			X	1
regional lymph node dissections of the axilla and groin				X			X	1
hernia repair				X			X	1
regional flaps, pedicled reconstructions				X			X	1
use of dermal substitutes for wound resurfacing				X			X	1

<b>ADVANCED</b>								
Should be able to perform:								
pelvic and head and neck dissections				X			X	1
free flap surgery				X			X	1
reconstruction of aesthetic units (nose / eyelids / ears / lips)				X			X	1
isolated limb perfusion				X			X	1
mapping biopsy techniques Staged Histological Clearance (SHC)				X			X	1

  

<b>Reconstructive techniques for skin surgery</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
Acquire competence in the planning, execution and management of appropriate soft tissue reconstruction of skin defects								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of perforators and angiosomes – relevant to planning of local, regional and distal flaps		X				X	X	1
anatomy of local, regional and free flaps suitable for head & neck reconstruction		X				X	X	1
classification of flaps (random v axial / muscle flap - Mathes and Nahai / type of tissue being transferred)		X				X	X	1
advantages and disadvantages of local, regional and free flaps in the patient post skin tumour excision		X				X	X	1
use of local, regional and free flaps in the head & neck/upper limb/leg/chest and trunk		X				X	X	1
factors affecting outcome in flap surgery (patient related, operative, adjuvant therapy related)		X				X	X	1
principles of flap surgery (replace “like with like”, reconstructive units, back-up plan and “life boat”, donor site considerations)		X				X	X	1
principles of microsurgery		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
planning and prioritising treatment within the head & neck MDT setting		X			X	X	X	1,3
interpreting angiographic abnormalities when planning reconstruction, surgical anatomy and neurovascular supply of flaps used in head & neck reconstruction		X				X	X	1
indications for preoperative investigations for specific flaps		X				X	X	1
airway management according to techniques specified in ATLS		X				X	X	1
post-operative flap monitoring techniques		X				X	X	1
complications of autologous tissue reconstruction including donor site morbidity		X				X	X	1
use of common skin substitutes		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
factors determining decision making in choice of flaps and tissue for soft tissue defect reconstruction		X				X	X	1
factors determining decision making in choice of flaps and tissue for reconstruction of particular units of the head & neck (nose / eyelids / ears / lips), factors determining appropriate surgical ablation techniques		X				X	X	1
range, indications and principles of surgical options and non-operative techniques		X				X	X	1
long term outcomes of different types of reconstructions		X				X	X	1
assessment of outcome		X				X	X	1
flap salvage and options following failure		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
clinically assess the soft tissue defect	X						X	1
take history, eliciting factors important for decisions regarding suitability / type of reconstruction	X						X	1
perform contemporaneous and appropriate record keeping	X						X	1
manage uncomplicated wounds using a range of dressings	X						X	1
plan both local and free flaps resurfacing of soft tissue defects	X						X	1
co-ordinate soft tissue reconstruction in conjunction with ablative team	X				X		X	1,3
manage the patient following Staged Histological Clearance (SHC)	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
discuss advantages and disadvantages of reconstructive options with patients specifically setting realistic expectations, advising on reconstruction as a process detailing possible complications	X						X	1
take informed consent from patients and participate in joint decision making	X						X	1
arrange appropriate level of post-operative care	X						X	1
manage complications of surgery appropriately in post-operative period and in the clinic	X						X	1
use of common skin substitutes	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
clinically assess complex reconstructive requirements and formulate appropriate management plan	X						X	1
interpret investigations as part of formulating management plan	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
positioning of patient on operating table				X			X	1
protection of pressure areas				X			X	1
prevention of nerve injuries / neurapraxia				X			X	1
pre-operative marking of patient, skin preparation, draping, antibiotic prophylaxis and thromboprophylaxis				X			X	1
split skin grafting, full thickness skin grafting				X			X	1
range of local flaps				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
reconstruction of the scalp and management of chronic scalp wounds and the unstable scalp				X			X	1
raising pedicled autologous flaps				X			X	1
in-setting of flap				X			X	1
harvesting chondrocutaneous, cartilage, composite grafts and vein grafts				X			X	1
use of common skin substitutes				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
3D reconstruction of specialised structures		X		X			X	1
reconstruction of the periorbital structures/ear and nose				X			X	1
microvascular anastomoses				X			X	1
flap salvage for failing flaps				X			X	1
flap shaping techniques				X			X	1
flap revision techniques				X			X	1

Scarring, wounds and other surgical conditions of the skin	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence in the management of the patient with the longer term outcomes of benign and malignant skin conditions / post surgical scarring and chronic wounds								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
skin anatomy		X				X	X	1
aetiology and related benign conditions		X				X	X	1
hypertrophic scars, keloids, dermatofibroma, epidermal cysts, lentigines, actinic keratoses, xanthelasmata, lipomas		X				X	X	1
history and examination of the skin		X				X	X	
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
dermoscopy and imaging techniques of the skin		X				X	X	1
Marjolin's ulcer, pilomatrixoma, DFSP, hidradenitis suppuritiva, acne scarring, inflammatory skin conditions		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
consequences of nerve resection and other functional deficits after resection of tumour		X				X	X	1
lymphoedema		X				X	X	1
complex wounds		X				X	X	1
psychological and social issues that can affect the skin cancer patient		X				X	X	1
reconstructive techniques for pressure sores and large complex wounds		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
assess the skin using dermoscope	X						X	1
recognise infection, induration, lymphoedema, seroma, post radiotherapy recurrence in complex scars	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
assess surgical scar and deploy non-operative techniques for scar improvement	X						X	1
injection techniques for scar improvement	X						X	1
manage functional and psychological effects of post cancer resection surgery	X						X	1
participate in multidisciplinary management of patients with large, chronic vascular malformations	X						X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
undertake nerve defect assessments	X						X	1
make decisions and analyse the options for aesthetic improvement in the surgically-scarred cancer patient including advance communications skills	X						X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
debulking of keloids				X				1
excision of benign lesions				X				1
shave excisions				X				1
laser ablation of skin lesions				X				1
incision and curettage for active hidradenitis suppuritiva				X				1
<b>INTERMEDIATE</b>								
Should be able to perform:								
botulinum toxin and filler injections				X				1
scar release				X				1
z-plasty				X				1
reconstruction post excision of scars				X				1
surgical options of laser				X				1
excision or sclerotherapy for vascular malformations				X				1
fat grafting				X				1
<b>ADVANCED</b>								
Should be able to perform:								
laser resurfacing		X		X			X	1
rejuvenation of the skin		X		X			X	1
reconstructive techniques for advanced and crippling hidradenitis suppurativa		X		X			X	1
reconstruction techniques for pressure sores and large complex wounds, lymphatic reconstruction/anastomosis		X		X			X	1
surgical excision of lymphoedema		X		X			X	1

Multidisciplinary team workings, allied professionals, palliative care and follow up regimes, trials, research and national guidelines	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Acquire competence working as a member of the multidisciplinary team, knowledge of and ability to consider appropriate referral to other professionals. A full understanding of NICE Improving outcomes guidance and Peer review. An understanding of research and audit in local, national and international settings								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
national guidelines (NICE) for the diagnosis, treatment and follow up of BCC, SCC's, Bowen's, Melanoma, dermatofibrosarcoma protuberans and suprafascial sarcoma		X				X	X	1
surgical and non surgical options		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
management of the patient with recurrent disease (surgical, non-surgical and radiotherapy options)		X				X	X	1
stages of bereavement that can be associated with loss of body image and the clinical and psychological supports that can be put in place to assist the patient cope with that loss		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
current trials, ethics, research and pathways to develop trials/research within a service		X				X	X	1
impact of disfigurement		X				X	X	1

consequences of an altered appearance, what it involves psychologically and socially, and the impact of an individual’s body image on their life and that of their family		X				X	X	1
process by which an individual can successfully adjust to disfigurement and how the multidisciplinary team can assist with that process		X				X	X	1,3
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability in using communication and referral pathways to specialist MDMs	X	X					X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
interpret lymphoscintigraphy, CT, MRI, PET, FNA, USS and pathology minimum dataset	X	X					X	1
develop and record management plan for the patient and discuss rationale for management of common scenarios with patients and colleagues	X	X					X	1
apply psychological assessment tools for evaluation of psychological needs (patient questionnaires)	X	X					X	1
<b>ADVANCED</b>								
Should demonstrate ability to:								
formulate management plan using skills of analysis and diagnostic synthesis, judgement	X	X					X	1
discuss complex treatment scenarios with patients including discussion of all options, advantages and disadvantages and taking informed consent	X	X					X	1
develop the skills to arrange patient-centered care with patient as partner in the process	X	X					X	1
provide realistic information and guiding patient decision-making regarding choices available and timing of those treatments	X	X					X	1
manage and lead the multi-disciplinary teams in respect of provision of psycho-social care	X	X			X		X	1,3
arrange the care pathway that supports an individual to successfully adjust to disfigurement through giving the individual and family specific life-skills -these include the patient being provided with information about their condition and its treatment, developing a positive outlook/belief system, learning to cope with their feelings, exchanging experiences with others who’ve “been there” and social skills training to manage other people’s reactions	X	X					X	1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
excision of small skin recurrences / <i>in transit</i> metastases				X			X	1
recording surgical procedures				X			X	1
handling of surgical specimens				X			X	1
orientation and appropriate carriage medium for skin specimens				X			X	1
performing FNA.				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
treatment of painful metastatic lesions and recurrences by surgical resection/laser resection of metastatic lesions				X			X	1
groin and axillary dissections				X			X	1
fasciotomy for the leg or the upper limb				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
head and neck resections				X			X	1
ILI, ILP, CO2 laser				X			X	1
minimally invasive surgical methods of isolated metastases		X		X			X	1
pelvic resections		X		X			X	1

Vascular Anomalies	CEX	CBD	DOPS	PBA	MSF	ISB Section 1	ISB Section 2	GMP
<b>OBJECTIVE</b>								
Competence in the assessment, surgical management and aftercare of vascular anomalies								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
classification and natural history of the common types of vascular anomalies including haemangiomas and vascular malformations affecting different vessels		X				X	X	1
diagnostic criteria of main types of vascular anomalies including ability to distinguish high and low flow lesions as originally described by Mulliken		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
abnormalities and syndromes associated with haemangiomas (eg PHACE syndrome, Kasabach-Merritt syndrome, Maffucci’s syndrome) and vascular malformations (eg Sturge-Weber, Klippel-Trenaunay, Parkes-Weber, Hereditary Haemorrhagic Telangiectasia)		X				X	X	1
indications for radiological investigations and safety issues pertaining to those investigations including MRI, CT and angiography		X				X	X	1
pharmacological interventions that are or have been used in the treatment of haemangiomas eg corticosteroids (systemic and intralesional), propranolol and possible side effects		X				X	X	1
principles of management of vascular tumours and malformations		X				X	X	1
problems related to multiple lesions eg haemangiomas including visceral or venous malformations		X				X	X	1
different types of laser treatment for vascular malformations eg pulsed dye laser and long pulse Neodymium:YAG laser including the role of topical cooling		X				X	X	1
role of the MDT in management of Vascular Anomalies		X				X	X	3,1
<b>ADVANCED</b>								
Should demonstrate knowledge of:								
difficult to classify lesions eg glomangiomas, rapidly involuting congenital haemangiomas, non-involuting congenital haemangiomas, tufted haemangiomas and haemangioendotheliomas		X				X	X	1
appearance of different vascular lesions on ultrasound, MRI, CT and angiography		X				X	X	1
different radiological procedures used for the treatment of vascular anomalies e.g. sclerotherapy for venous malformations and lymphatic malformations and embolization of arteriovenous malformations and their potential complications		X				X	X	1
techniques of surgical excision of difficult lesions such as arteriovenous malformations in conjunction with embolization and problems of surgical treatment in e.g. Klippel-Trenaunay syndrome and the importance of preserving venous drainage		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
correctly diagnose the main types of haemangiomas and vascular anomalies on history and physical signs	X	X				X	X	1
advise patients and parents on the natural history of haemangoimas and different vascular anomalies including prognosis of these lesions		X				X	X	3,1

<b>INTERMEDIATE</b>								
Should demonstrate ability to:							X	1
utilise investigations to confirm diagnosis		X					X	1
demonstrate extent of a vascular anomaly	X	X					X	1
formulate a treatment plan utilising medical and non-invasive methods of management in an appropriate and effective way		X					X	1
liaise as needed with other specialities eg radiology, dermatology, ophthalmology ENT		X					X	3,1
<b>ADVANCED</b>								
Should demonstrate ability to:								
plan appropriate interventional treatments		X				X	X	1
advise patients and parents on outcomes and complications of radiological, laser-based and surgical interventions with particular reference to critical anatomical sites including orbit, perioral and parotid areas		X				X	X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to								
use a hand held Doppler for diagnostic purposes				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform :								
debulking of infantile haemangioma				X			X	1
excision of small vascular malformation				X			X	1
injection of steroids into infantile haemangioma				X			X	1

<b>Sarcoma</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
The purpose of training in sarcoma surgery is to become competent in the diagnosis and management of sarcoma, notably the management of all forms of soft tissue sarcoma								
All plastic surgery trainees are expected to have knowledge and exposure to soft tissue sarcoma diagnosis and management								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Should demonstrate knowledge of:								
anatomy of the trunk, pelvis, axilla, and limbs		X				X	X	1
osseous, muscular and neurovascular anatomy of the trunk and limbs		X				X	X	1
vascular, neuronal and lymphatic supply / drainage of the head & neck, trunk and limbs, blood supply of the skin		X				X	X	1
anatomy of perforators and angiosomes- relevant to planning of local flaps		X				X	X	1
anatomy of free-flaps relevant to reconstruction of extremity and truncal defect following excisional sarcoma surgery		X				X	X	1
<b>INTERMEDIATE</b>								
Should demonstrate knowledge of:								
aetiology, incidence and relative anatomical distribution		X				X	X	1
pathology of primary soft tissue tumours and primary bone tumours		X				X	X	1
common benign sarcoma like disorders- lipomas, vascular and congenital malformations, fibromatosis including desmoids		X				X	X	1
specific history and diagnostic features (clinical and non-clinical) of bone and soft tissue sarcomas and their differential diagnoses		X				X	X	1
patterns of spread of sarcomas		X				X	X	1
classification of sarcoma		X				X	X	1
grading and staging systems in current use		X				X	X	1
Should demonstrate knowledge of:								
relevant imaging modalities for different sarcoma		X				X	X	1
methods for obtaining histological diagnosis		X				X	X	1
Should demonstrate knowledge of assessment of patients presenting with sarcoma								
guidelines for referral based on clinical suspicion (size symptoms etc.)		X				X	X	1
diagnostic imaging of sarcoma including X-rays, CT, MRI, USS, PET-CT, and imaging-assisted diagnostic biopsy		X				X	X	1
importance of correctly positioning biopsy access		X				X	X	1
histology of the common sarcomas		X				X	X	1
role of frozen section specimens		X				X	X	1
immunocytochemistry and cytogenetic techniques		X				X	X	1
<b>ADVANCED</b>								
Should demonstrate knowledge of :								
indications for different resection modalities in the management of sarcomas, e.g. marginal, wide, compartmentectomy etc		X				X	X	1
current concept of extremity preserving surgery with adjuvant radiotherapy compared with past concepts of compartmentectomy and amputation to achieve acceptable local recurrence rates		X				X	X	1
Should demonstrate knowledge of:								
options for soft tissue reconstruction dependent of location and analysis of defect		X				X	X	1
reconstructive options for chest wall defects involving multiple rib resection		X				X	X	1
reconstructive options for abdominal wall defects		X				X	X	1
Should demonstrate knowledge of:								
role of radiotherapy in the management of sarcoma and therefore advantages and disadvantages of different reconstructive options		X				X	X	1
role of chemotherapy in the management of soft tissue sarcomas		X				X	X	1
neo-adjuvant versus adjuvant therapy		X				X	X	1
follow-up schedule and appropriate imaging		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Should demonstrate ability to:								
elicit a focused history from patients presenting with soft tissue lump	X						X	1
musculoskeletal pain or imaging suspicious for sarcoma		X					X	1
examine patient, assessing site, size, consistency and fixity of lumps and associated involvement of key anatomical structures	X						X	1
examine extremity neurovascular status	X						X	1
clinically assess soft tissue defects in order to guide reconstructive options	X						X	1
<b>INTERMEDIATE</b>								
Should demonstrate ability to:								
interpret imaging as part of planning reconstructive options		X				X	X	1
Should demonstrate ability to:								
assess potential donor sites for reconstructive option		X					X	1
plan both local and free flap reconstructions appropriate to defect		X					X	1
formulate logical procedural plan for complex reconstructive surgery		X					X	1

<b>ADVANCED</b>								
Should demonstrate ability to:								
work as a member of the multidisciplinary team and make appropriate referrals to related professionals		X					X	3,1
apply NICE guidelines, improving outcomes guidance and support peer review. support research and audit in local, national and international settings		X				X	X	2,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
<b>BASIC</b>								
Should be able to perform:								
direct closure of wound				X			X	1
harvesting and inseting of skin grafts				X			X	1
raising of local fasciocutaneous flaps				X			X	1
<b>INTERMEDIATE</b>								
Should be able to perform:								
raising gastrocnemius flap for coverage of proximal third tibial defects				X			X	1
direct nerve and vessel repair				X			X	1
harvesting of nerve and vein grafts				X			X	1
arterial and venous anastomosis				X			X	1
four compartment fasciotomy for complications of extremity surgery				X			X	1
<b>ADVANCED</b>								
Should be able to perform:								
marginal excision of soft tissue sarcoma				X			X	1
marginal excision of sarcoma from vital adjacent structures				X			X	1
wide excision of soft tissue sarcoma				X			X	1
skin excision in continuity with soft tissue tumour or elevation of viable skin flaps				X			X	1
access incisions which preserve maximum vascularity to surrounding soft tissues				X			X	1
compartmentectomy				X			X	1
amputation at various levels of extremities involving sarcoma				X			X	1
most steps in the raising and anastomosis of free flaps				X			X	1

<b>Dealing with patients impacted by disfigurement and loss of form and function</b>	<b>CEX</b>	<b>CBD</b>	<b>DOPS</b>	<b>PBA</b>	<b>MSF</b>	<b>ISB Section 1</b>	<b>ISB Section 2</b>	<b>GMP</b>
<b>OBJECTIVE</b>								
To develop an understanding of the meaning of disfigurement, the impact of an altered appearance and what it involves psychologically and socially, and the impact of an individual's body image and life both on them and their family								
<b>KNOWLEDGE</b>								
<b>BASIC</b>								
Demonstrates knowledge of the psycho-social issues that may follow from trauma, disease and surgery including social anxiety, depression, bullying, prejudice isolation and exclusion		X					X	3,1
Demonstrates awareness of those parts of the specialty where psychosocial issues can have particular impacts for patients (Burns, Cleft, Craniofacial, Hand, Head & Neck, Genitourinary reconstruction, Oncoplastic Breast, Skin Oncology, Vascular anomalies)		X					X	3,1
<b>INTERMEDIATE</b>								
Demonstrates knowledge of the factors that predict patient ability to cope with surgical treatment		X				X	X	1
Defines the stages of bereavement associated with loss of body image and the clinical and psychological supports that can be put in place to assist the patient cope with that loss		X				X	X	1
<b>CLINICAL SKILLS</b>								
<b>BASIC</b>								
Demonstrates ability to elicit signs and symptoms of distress and anxiety in patient undergoing plastic surgery	X	X					X	3,1
Demonstrates ability to make an appropriate referral to a clinical psychologist or other supporting member of the multidisciplinary team		X					X	3,1
<b>INTERMEDIATE</b>								
Provides realistic information and guides patient decision-making regarding choices available and timing of those treatments. Treats the patient as partner in the decision-making process		X					X	3,1
Demonstrates confidence to elicit psychological and social needs in a range of settings		X					X	3,1
<b>TECHNICAL SKILLS AND PROCEDURES</b>								
Not applicable								