



MALAYSIAN MEDICAL COUNCIL

SPECIALTY-SPECIFIC REQUIREMENTS (SSR)

(ORTHOPAEDIC SURGERY)

Prepared By:

Specialty Education Subcommittee (SEC)
of the Medical Education Committee (MEC),
Malaysian Medical Council

Approved by the Malaysian Medical Council:

17th June 2025

Preface

1. The Specialty-Specific Requirements (SSR) pertain to requirements within each specialty and specify the minimum requirements pertaining to the training curriculum, trainers, educational resources and head of programme.
2. The Specialty-Specific Requirements (SSR) are intricately linked to the MMC Malaysian Standards for Medical Specialist Training 2019, and the Standards and SSR must be read and applied together.

Specialty-Specific Minimum Requirements for Training Curriculum (Based on Area 1.2.4 of Malaysian Standards for Medical Specialist Training) - Orthopaedic Surgery

Specialty-Specific Requirements (Reference Standard)	Criteria												
1) Minimum entry requirements for postgraduate training (Standard 3.1.)	<ol style="list-style-type: none"> 1. Fully registered with the Malaysian Medical Council with a current annual practising certificate 2. 2 years of experience in surgery and its related fields post housemanship (including at least 6 months in orthopaedic surgery) 3. Successful entry evaluation to programme 												
2) Minimum duration of training programme (Standard 1.2.4 - Table 2)	Completion of a minimum of 48 months of specialised training in the specialty programme.												
3) Structure of training (rotation/modules) (Standard 1.2.4 - Table 3 & Table 4) Training overview Training rotation/ modules and case mix	<p>The program should have a clear pathway encompassing phases of training which shall include general orthopaedics, orthopaedic trauma and 8 of the orthopaedic subspecialty fields listed below.</p> <table border="1"> <thead> <tr> <th>Areas</th><th>Duration (Months)</th></tr> </thead> <tbody> <tr> <td>General Orthopaedics and Orthopedic Trauma</td><td>12</td></tr> <tr> <td>Spine</td><td>4</td></tr> <tr> <td>Arthroplasty</td><td>4</td></tr> <tr> <td>Sport and Arthroscopy Surgery</td><td>4</td></tr> <tr> <td>Paediatric Orthopaedic</td><td>4</td></tr> </tbody> </table>	Areas	Duration (Months)	General Orthopaedics and Orthopedic Trauma	12	Spine	4	Arthroplasty	4	Sport and Arthroscopy Surgery	4	Paediatric Orthopaedic	4
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General Orthopaedics and Orthopedic Trauma	12												
Spine	4												
Arthroplasty	4												
Sport and Arthroscopy Surgery	4												
Paediatric Orthopaedic	4												

	Foot and Ankle Surgery	4
	Upper Extremity Surgery and Microsurgery	4
	Orthopaedic Oncology	4
	Musculoskeletal Advanced Trauma	4
	Other specialties rotation related to orthopaedic surgery <ul style="list-style-type: none"> - Radiology - Plastic Surgery - Intensive Care - Vascular Surgery - Rehabilitation Medicine - Anaesthesiology and Critical Care 	4 (A maximum of 4 months in a single or combined rotations in any of the fields listed under specialties rotation)
*Duration of training per year is 48 weeks		
4) Assessments (Standard 2.2.1)	Assessments should <ol style="list-style-type: none"> i. Employ appropriate methods and levels that are well-aligned with learning outcomes. These include a variety of methods and tools such as theory and clinical assessments, case-based discussion (CBD), DOPS, MiniCEX, OSATS, OSCE, case report, supervisor's report, logbook, practice diary, research report, and multi-source feedback. ii. Include methods appropriate to assess communication skills, ethics and professionalism. iii. Include formative and summative assessments throughout each rotation, semester, or year of study. iv. Include clear criteria for progression to next level / phase of training. v. Include an exit evaluation/assessment. 	
5) Additional requirements for completion of training (Standard 1.2.4)	<ol style="list-style-type: none"> i. Completion of graduate-level research or clinical audit project. ii. Additional courses: <ul style="list-style-type: none"> • Advanced Life Support (ALS) or equivalent 	

6) List of competencies to be acquired upon completion of training

(Standard 1.1.4)

Generic competencies

Able to:

- i. Independently manage common Orthopaedic Surgery cases holistically, including complications, whilst considering social, health economics and preventive aspects.
- ii. Function competently and professionally in a team-based environment.
- iii. Maintain a high level of integrity and ethical conduct in practice
- iv. Ensure effective communication with patients, colleagues and other healthcare-adjacent providers.
- v. Advance the evidence-based practice of surgery through research, audit and scientific writing.
- vi. Exemplify life-long learning through continual professional development, including acquisition of new skills and competencies.
- vii. Demonstrate exemplary leadership qualities, including setting and maintaining standards, supporting others and having the resilience to cope with pressure.
- viii. Cultivate an entrepreneurial mindset, balancing risks and benefits, for creative problem-solving.

Specific specialty competencies

- i. Diagnose and manage Orthopaedic emergencies and injuries.
- ii. Provide inpatient and outpatient Orthopaedic care for adult and paediatric patients.
- iii. Evaluate and manage perioperative Orthopaedic surgical patients.
- iv. Diagnose and manage Orthopaedic post-operative complications.

At the end of the programme, trainee must be able to perform or manage:

ORTHOPAEDIC PROCEDURES
Arthrotomy
Bone grafting – autograft from ASIS and PSIS, allograft
Closed manipulative reduction and application of full- length cast under sedation – upper and lower limbs
Complications following trauma (c)
Fixation of peri- and intra-articular fractures
Fluid management in the injured patient (c)
Incision & drainage / Toilet & suturing / debridement

		Musculoskeletal infection
		Intramedullary nailing of the tibia and femur
		K-wiring techniques
		Lag screw fixation
		Large joint aspiration and injection
		Regional and local anaesthetic blocks for upper and lower limbs
		Transtibial and transfemoral lower limb amputations
		Acute dislocations with and without fractures
		Implant associated infection
		Neurovascular injuries
		Open fractures
		Acute and definitive pelvic injuries
		Physeal injuries
		Septic arthritis
		Polytrauma patient
		Plating of long bone fractures
		Sequestrectomy/bone resection in osteomyelitis
		Assessment of patient with traumatic cervical spine injury
		Split skin grafting
		Tension band wiring – patella, olecranon
		Uniaxial external fixation of extremities
		Tendon repair
		SPINE
		Posterior decompression of lumbar spine
		Epidural, nerve root and facet joint injection
		SHOULDER & ELBOW
		Fixation of intra-articular fractures of the shoulder and elbow
		Fracture fixation of the shoulder, humerus and elbow with or without ligamentous repair – including IM nailing
		Manipulation of shoulder under anaesthesia
		Release of simple contractures of the elbow
		WRIST & HAND
		Amputations of the digit(s), hand, wrist and forearm
		Fixation of intra-articular fractures of the distal radius
		Drainage of abscess in the hand
		Fasciotomies of the hand and forearm
		Fracture fixation of the hand, wrist and forearm
		Primary and secondary management of fingertip injuries
		Arthrodesis of the digit(s), hand and wrist

	Excision of small swellings of the hand, wrist and forearm (<5cm) – benign tumours, lipoma, ganglion, GCT
	Release of compressive neuropathies – median nerve at carpal tunnel
	Release of tendinopathies – trigger finger, DeQuervain tenosynovitis
	Therapeutic injections in the hand and wrist
	PELVIS & HIP
	Hip hemiarthroplasty
	Intramedullary nailing
	Fixation of hip fracture in elderly
	KNEE
	Arthroscopic lavage of septic arthritis of the knee
	Fixation of ACL or PCL avulsion
	Fixation of intra-articular knee fractures
	Fixation of fracture-dislocations of the knee
	Diagnostic arthroscopy of the knee
	Harvesting and preparation of autograft
	Patella ligament repair
	Quadriceps tendon repair
	FOOT & ANKLE
	Amputation: Chopart/ Lisfranc amputation
	Amputation: Ray amputation
	Diabetic foot: wound debridement
	Fasciotomies of the foot
	ORIF for malleolar, metatarsal and phalangeal fractures
	Open repair of Achilles tendon
	Achilles tendon lengthening
	Hallux valgus surgery
	Interphalangeal and-Metatarsophalangeal (MTP) fusions
	Surgical treatment of ingrowing toenail
	Tibiotalar calcaneal fusion
	Triple fusion
	LLRS
	Fracture fixation with ring fixator
	Application of external fixator and wound debridement
	Arthrotomy for septic arthritis
	Closed manipulative reduction of paediatric fractures and casting
	Hip spica
	Open reduction and internal fixation in Paediatric fractures
	Supracondylar humerus fracture fixation

	<table><tr><td>Congenital talipes equinovarus (CTEV): Ponsetti manipulation, casting, and tenotomy</td></tr><tr><td>ORTHOPAEDIC ONCOLOGY</td></tr><tr><td>Excision of small (< 5 cm) soft tissue/bone tumours – benign</td></tr><tr><td>Tru-cut or core needle biopsy</td></tr></table>	Congenital talipes equinovarus (CTEV): Ponsetti manipulation, casting, and tenotomy	ORTHOPAEDIC ONCOLOGY	Excision of small (< 5 cm) soft tissue/bone tumours – benign	Tru-cut or core needle biopsy
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ORTHOPAEDIC ONCOLOGY					
Excision of small (< 5 cm) soft tissue/bone tumours – benign					
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***Note : These criteria represent the minimum standards. Each educational programme provider may exercise their autonomy to state criteria above and beyond these minimum standards.**

**Specialty-Specific Minimum Requirements (Items 4-7) for Training Centres
(Based on Areas 3-6 of Malaysian Standards for Medical Specialist Training) -
Orthopaedic Surgery**

Item no	Specialty-Specific Requirements (Reference standard)	Criteria						
4	Trainer-to-trainee ratio. (Standard 3.1.3)	1:4						
5	Minimum qualifications and experience of trainers (Standard 4.1.2)	<div><div>i.</div>Registered with National Specialist Register</div> <div><div>ii.</div>Completed Training-of-Trainer course/equivalent</div>						
6	Minimum requirements for educational resource (Standard 5.1.1)	<div>The diagnostic facilities and equipment requirement of the programme training centres must collectively be able to accommodate the following minimum requirement:</div> <div>Physical Facilities</div> <div><table><tr><th>Facilities</th></tr><tr><td>Accident and Emergency Department</td></tr><tr><td>Dedicated orthopaedic beds/wards</td></tr><tr><td>Outpatient clinic rooms, procedure room, Plaster of Paris (POP) room</td></tr><tr><td>Operating rooms with intensive care service</td></tr><tr><td>Library with Orthopaedic books and/or access to Orthopaedic related subject e-books and journals</td></tr></table></div>	Facilities	Accident and Emergency Department	Dedicated orthopaedic beds/wards	Outpatient clinic rooms, procedure room, Plaster of Paris (POP) room	Operating rooms with intensive care service	Library with Orthopaedic books and/or access to Orthopaedic related subject e-books and journals
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Clinical research facility											
		<p>Services</p> <table><tr><th>Services</th></tr><tr><td>Medical rehabilitation department including physiotherapy and occupational therapy services</td></tr><tr><td>Pharmacy services</td></tr><tr><td>Pathology department</td></tr><tr><td>Intensive care services</td></tr><tr><td>Anaesthetic clinic and service</td></tr><tr><td>Pain management service</td></tr><tr><td>Imaging department</td></tr><tr><td>Medical record</td></tr></table>	Services	Medical rehabilitation department including physiotherapy and occupational therapy services	Pharmacy services	Pathology department	Intensive care services	Anaesthetic clinic and service	Pain management service	Imaging department	Medical record
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Surgical Microscope	1										

		Orthopaedic OT table with accessories	1								
		360 degree C-Arm Surgical Imaging System	1								
		Power System Surgical Tool	6 sets								
		Arthroscopy Tower	1								
		Bone Cement Removal Set	1								
		Ring Fixator Set for Limb Reconstruction	1								
		Spine Frame	1								
		Neuro-monitoring	1								
		Case Mix and Case Load									
		The case mix and case load of the programme training centres must collectively be able to accommodate the following minimum requirements for each trainee:									
		<table><tr><th>Areas</th><th>Quantity (cases or surgeries/trainee/ year)</th></tr><tr><td>Inpatient Admissions</td><td>150</td></tr><tr><td>Orthopaedic specialist clinic cases</td><td>500</td></tr><tr><td>Operations performed</td><td>80</td></tr></table>	Areas	Quantity (cases or surgeries/trainee/ year)	Inpatient Admissions	150	Orthopaedic specialist clinic cases	500	Operations performed	80	
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Inpatient Admissions	150										
Orthopaedic specialist clinic cases	500										
Operations performed	80										

7	Minimum qualifications and experience of Head of Programme (Standard 6.2.2)	<ul style="list-style-type: none"> i. 5 years of working experience after national specialist registration ii. Experience in administration and/or academic management
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ACKNOWLEDGEMENT

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