MSc Pediatrics Program

Program Specifications

Mission | Curriculum Map | Assessment Framework | Blueprints | WFME Benchmarking

Program	Master of Science (MSc) in Pediatrics — Code: PEDI600
Department	Pediatrics and Neonatology
Faculty	Faculty of Medicine, Capital University
Academic Year	2025–2026
Document Version	Issued May 2026
Reference Standards	(1) World Federation for Medical Education (WFME) Global Standards for Quality Improvement in PGME, 2023 Revision (2) National Authority for Quality Assurance and Accreditation of Education (NAQAAE)- National Academic Reference Standards (NARS), Medicine 2nd Edition 2017 (3) Egyptian Supreme Council of Universities MSc Regulations
Approved By — Head of Department	Name: …… Signature: …… Date: ……

1. Program Mission and Values

1.1 Mission Statement

The MSc Pediatrics program at the Faculty of Medicine, Capital University, is committed to producing competent, ethical, and reflective specialist pediatricians who are equipped to deliver evidence-based, patient-centered care to children and their families in the Egyptian, regional and international health context. The program fosters advanced clinical competence, critical appraisal skills, research literacy, and a commitment to lifelong professional development. It prepares graduates to contribute meaningfully to improving child health outcomes at institutional, national, and community levels, in alignment with Egypt's national health priorities and the values of the Egyptian Medical Syndicate with international standards alignment.

The mission statement is reviewed and re-affirmed annually by the Departmental Postgraduate Committee as part of the QA cycle. It is published on the faculty website, included in the student handbook, and referenced in each course specification as the overarching frame.

1.2 Program Values

- Clinical excellence grounded in evidence-based practice and patient safety
- Respect for the dignity, rights, and cultural context of children and their families
- Commitment to research and scholarship as drivers of improved child health outcomes
- Professional integrity, ethical conduct, and lifelong self-directed learning
- Equity, inclusion, and sensitivity to the socioeconomic and cultural diversity of the Egyptian patient population

2. Program Overview

Program Type	Postgraduate academic degree with clinical training
Duration	2 years full-time (maximum 5 years from enrolment)
Total Credit Hours	49 credit hours: Part I: 10 hours (6 obligatory, 3 elective and one selective course), Part II: 21, Thesis: 18
Clinical Training Site	Badr University Hospital — approved clinical training site
Intake Capacity	As determined annually by the Departmental Postgraduate Committee, linked to available supervisory capacity and clinical training resources
Awarding Body	Faculty of Medicine, Capital University — in accordance with Egyptian SCU MSc Regulations
Program Director	Senior faculty member, Department of Pediatrics and Neonatology

2.1 Program Structure:

2.1.1. Obligatory courses

Year / Part	Course Code	Course Title	Credit Hours	Assessment
Year 1 - Part I	PEDI6001	Basics of child health	0.6	Written & OSPE
	PEDI6002	Growth and development in Pediatrics	0.6	Written & OSPE
	PEDI6003	Clinical nutrition & malnutrition in Pediatrics	0.6	Written & OSPE
	PEDI6004	Basics of Infectious diseases in Pediatrics	0.6	Written & OSPE
	PEDI6005	Preventive Medicine in Pediatrics	0.6	Written & OSPE
	PEDI6006	Basic Physiology of Pediatric Medicine	0.6	Written & OSPE
	PEDI6007	Basic Microbiology and immunology	0.6	Written & OSPE
	PEDI6008	Basic Embryology & Genetics of Pediatric Medicine	0.6	Written & OSPE
	PEDI6009	Basic Pharmacology and drugs information	0.6	Written & OSPE
	PEDI60010	Basic Pathology of Pediatric Medicine	0.6	Written & OSPE
Year 2 - Part II	PEDI6011	Pediatric Medicine	21	Written, clinical & Oral
	Thesis	Research Thesis	18	Thesis & oral

2.1.2. Elective courses

Year / Part	Course Code	Course Title	Credit Hours	Assessment
Year 1 - Part I	S600	Medical Statistics	2	Written
	R600	Research ethics	1	Written

2.1.3. Selective courses

Year / Part	Course Code	Course Title	Credit Hours	Assessment
Year 1 - Part I	E01	مكافحة العدوى	1	Written
	E02	ادارة مستشفيات	1	Written
	E03	اخلاقيات و آداب المهنة	1	Written
	E10	جودة المستشفيات	1	Written

3. Competency Framework and Intended Learning Outcomes

3.1 NAQAAE- NARS Competency Framework

Dom.	NAQAAE Area	Description
I	Clinician	Applies knowledge of clinical sciences to provide expert, ethical, evidence-informed clinical care to pediatric patients across all ages and settings
II	Communicator	Communicates effectively with patients, families, colleagues, and the healthcare team across all clinical and professional contexts
III	Collaborator	Functions effectively within multidisciplinary healthcare teams; contributes to team-based, patient-centered care
IV	Scholar & Scientist	Applies principles of evidence-based medicine; contributes to research; teaches and mentors junior colleagues
V	Professional	Demonstrates integrity, compassion, accountability, and respect for patients, families, and colleagues in all professional interactions
VI	Lifelong Learner	Takes responsibility for self-directed professional development; reflects critically on practice; seeks and uses feedback; teaches and leads improvement

3.2 Program Intended Learning Outcomes

On completion of the MSc Pediatrics program, graduates will be able to:

ILO Code	KSA Category	NAQAAE Area	WFME	Intended Learning Outcome
K1	Knowledge	rI — Clinician	2.4	Critically analyze complex pathophysiological mechanisms underlying common acute neonatal and pediatric emergencies
K2	Knowledge	I — Clinician	2.4	Differentiate variant clinical presentations of pediatric metabolic and genetic disorders as per recent evidence-based guidelines
P1	Practical Skills	I — Clinician	2.5	Perform advanced pediatric resuscitation and endotracheal intubation safely according to PALS protocols
P2	Practical Skills	I — Clinician	2.5	Formulate an accurate, comprehensive differential diagnosis and diagnostic plan for a child presenting with pyrexia of unknown origin
I1	Intellectual	IV — Scholar	2.4	Appraise published pediatric clinical trials to determine their validity and clinical relevance to the national health context
I2	Intellectual	V — Health Team	2.4	Demonstrate empathetic, clear communication when breaking bad news to parents and guardians in high-stress clinical environments
PR1	Professionalism	III — Professional	2.4	Demonstrate adherence to professional and ethical codes governing pediatric practice, including patient confidentiality, informed consent, and medico-legal awareness
TS1	Team & System	V — Health Team	2.4	Collaborate effectively within the pediatric multidisciplinary team, demonstrating understanding of interprofessional roles and applying leadership skills in clinical settings
LL1	Lifelong Learning	VI — Lifelong Learner	2.7	Design and conduct a supervised research project relevant to pediatric clinical practice, applying appropriate statistical methods and reporting findings to professional audiences
LL2	Lifelong Learning	VI — Lifelong Learner	2.7	Develop and implement a personal learning plan using reflection, self-assessment, and available resources to address identified practice gaps

4. Program-Level Curriculum Map

4.1 ILO × Course Coverage Matrix (obligatory)

This matrix documents which courses provide substantive coverage of each program ILO. It is reviewed annually by the Departmental Postgraduate Committee.

K1	K2	P1	P2	I1	I2	PR1	TS1	LL1	LL2	Course	Credits hours	Assessment
✓	✓		✓							PEDI6001	0.6	Written & OSPE
✓	✓		✓							PEDI6002	0.6	Written & OSPE
✓	✓		✓							PEDI6003	0.6	Written & OSPE
✓	✓		✓							PEDI6004	0.6	Written & OSPE
✓	✓		✓							PEDI6005	0.6	Written & OSPE
✓	✓		✓							PEDI6006	0.6	Written & OSPE
✓	✓		✓							PEDI6007	0.6	Written & OSPE
✓	✓		✓							PEDI6008	0.6	Written & OSPE
✓	✓		✓							PEDI6009	0.6	Written & OSPE
✓	✓		✓							PEDI6010	0.6	Written & OSPE
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	PEDI6011	21	Written, Clinical & Oral
✓	✓		✓	✓		✓	✓	✓	✓	Thesis	18	Thesis & Oral

4.2 Part I Constructive Alignment Table (Obligatory courses: Year 1)

Each Part I block specifies the mapped ILOs, teaching method, contact hours, and assessment, ensuring constructive alignment across all courses.

Course Code	Topics	ILO	Teaching Method	Contact Hours	Marks/ Assessment
PEDI6001	Basics of child health Introduction to genetics, Screening of genetic diseases, Genetic counselling, Cytogenetics, Patterns of genetic transmission, Prevention & treatment of genetic diseases	K1, K2, P2	Lectures, CBL	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE
PEDI6002	Growth and development in Pediatrics Normal growth, assessment, and Health supervision, The Newborn, The First Year, The Second Year, The Preschool Years & Middle Childhood	K1, K2, P2	Lectures, video, SDL	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE
PEDI6003	Clinical nutrition & malnutrition in Pediatrics Infant feeding, Complementary feeding, Feeding a normal child and adolescent, Normal Nutritional Requirements	K1, K2, P2	Lectures, CBL	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE
PEDI6004	Basics of Infectious diseases in Pediatrics Immunization, Maternal-to-Fetal Transmitted Infections, Viral exanthema & Fever	K1, K2, P2	Lectures, video, SDL	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE
PEDI6005	Preventive Medicine in Pediatrics -Breast and complementary feeding: Challenges, Global efforts, WHO recommendation for a baby-friendly hospital. -Malnutrition: Control of common risk factors, Epidemiology, prevention, and control of common disorders -Child Health Services: Objectives, Components, Immunization: cold chain, adverse reactions, contraindications and precautions, special conditions, and national programs related to child health, Evaluation -Epidemiology, Prevention, Control, and Related Programs of: Blood-Borne Disease in Egypt, Foodborne Infections in Egypt & Droplet infections in Egypt	K1, K2, P2	Lectures, SDL	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE

Course Code	Topics	ILO	Teaching Method	Contact Hours	Marks/ Assessment
PEDI6006	Basic Physiology of Pediatric Medicine -Cell physiology: Transport across cell membrane (body compartments), Properties of excitable membranes (membrane electrical activity i.e. Action potential), Synaptic physiology, Mechanism of hormonal action (receptors). -Homeostasis: Regulation of ABP and heart rate, body temperature regulation, body water, water and electrolyte balance, acid base balance, Hemostasis (mechanism of blood coagulation), pathophysiology of hemorrhage and shock. -Physiology of pain -Pediatric-related: Parental fluid therapy, Functional development of the organs systems of the fetus, Adjustment of the infant to extrauterine life and special functional problems of neonate, physiology of newborn, and premature, Fetal and neonatal Medical Physiology, Control of growth, Endocrine and neuroendocrine interaction that regulate puberty. Blood, Digestive system, Disorders of bilirubin metabolism, Endocrinology & Concise neurophysiology.	K1, K2, P2	Lectures	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE
PEDI6007	Basic Microbiology and immunology **General:** Sterilization & disinfection, antimicrobial chemotherapy & antimicrobial stewardship & MDROs **Immunology:** Innate immunity, Antigen & antibody, Hypersensitivity reactions, Autoimmune diseases, Immune deficiency disorders **Bacteriology:** Staphylococci, Streptococci, Pneumococci, Enterococci/Micrococci, Escherichia coli, Klebsiella, Proteus, Pseudomonas, Bordetella, Clostridium botulinum, Mycobacterium tuberculosis, Congenital syphilis, Anaerobic infection **Mycology:** General mycology, Candida **Virology**: Herpes family, Rhinovirus / Adenovirus / Corona virus, Orthomyxovirus, Paramyxoviruses & Rubella, Rota virus, Poliomyelitis virus **Infection control:** Hospital-acquired infection **Applied Microbiology: D**iseases transmitted from the mother to the fetus/ newborn, Organisms transmitted by milk & milk products, Urinary tract infection Meningitis, Bacterial food poisoning, Gastroenteritis, Pyrexia of unknown origin, Neonatal sepsis, Fever with Jaundice or hepatitis, Upper respiratory tract infections, Lower respiratory tract infections, Acute bacterial endocarditis, Organisms transmitted by blood transfusion, Recommended vaccination of healthcare workers. **Antibiotic sensitivity tests- Sampling for microbiological diagnosis : Blood, wound, urine, sputum, stool- Hand hygiene- Personal protective equipment (PPE**)	K1, K2, P2	Lectures	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE
PEDI6008	Basic Embryology & Genetics of Pediatric Medicine The cardiovascular system, The respiratory system, Gastrointestinal tube (Stomach, duodenum, intestine, rectum and anal canal), Liver, biliary system and pancreas, Urinary system (Kidney, ureter urinary bladder urethra), Male and female genital ducts, gonads, and external genital organs, The nervous system, Vertebral column, Pharyngeal apparatus, Endocrine glands, The face, nose and palate, Oral cavity, tongue and salivary glands, Limbs. General: gametogenesis, fertilization, implantation, embryogenesis, embryo folding, fetal membranes, placenta, umbilical cord, circulation, and twins	K1, K2, P2	Lectures, SDL	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE
PEDI6009	Basic Pharmacology and drugs information **General:** Pharmacokinetics: Absorption, Distribution, Metabolism, Excretion. Pharmacodynamics: Mechanism of action, adverse effects, factors modifying dose-response, pathological states, time, routs of administration, pharmocol-genetics factors **Autonomic Nervous System:** Sympathomimetic drugs (adrenaline, nor adrenaline ephedrine, amphetamine), Sympatholytic drugs (beta-blockers), Parasympathomimetic drugs (anti-choline esterases), Parasympatholytic drugs (atropine) **CVC:** treatment of heart failure, Drugs for treatment of hypertension **Respiratory system:** Drugs for bronchial asthma, cough mixture **CNS:** Anti-convulsant drugs**,** analgesic drugs **Chemotherapy:** Antimicrobial drugs**,** anti-viral**,** anti-fungal drugs**,** anti-helminthic drugs **Endocrine system:** Anti diabetic drugs, Calcium metabolism	K1, K2, P2	Lectures	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE

Course Code	Topics	ILO	Teaching Method	Contact Hours	Marks/ Assessment
	GIT: Anti-ulcer drugs, prokinetic drugs **Renal System:** Diuretics **Blood:** Drugs used in anemia, Heparin, oral anticoagulants, Platelets and Ant platelets				
PEDI60010	Basic Pathology of Pediatric Medicine Handling pathology specimens, Cell injury, Inflammation, Repair, General neoplasia, Common presentations of different pediatric systems affection	K1, K2, P2	Lectures, CBL, SDL	9 hrs.: 7 Theoretical & 2 practical	**30 Marks:** Essay, MCQ & OSPE

CBL: case-based learning, SDL: Self-directed learning

4.3 Part I Constructive Alignment Table (Obligatory courses: Year 2/ PEDI6011 theoretical)

The total contact hours are 315: 210 theoretical & 105 clinical

Topics	ILO	Teaching Method	Contact Hours	Marks/ Assessment
1. Neonatology: Resuscitation of the newborn, Nursery care, Discharge plan, thermoregulation (hypo-hyperthermia), common congenital anomalies "dysmorphology", Preterm, IUGR, hyperbilirubinemia, resp. disorders; respiratory distress (RDS, MAS, TTN, aspiration, PPH & apnea), Necrotizing Enterocolitis, sepsis, seizures, shock, Birth Asphyxia, Birth injuries, High risk newborn (Multiple pregnancy` Jitteriness, Glucose homeostasis (infant of Diabetic mother), Hematology (Anemia- Hemolytic Disease of the Newborn, Plethora (Polycythemia), Hemorrhage), cardiac disorders (cyanosis, heart failure, PDA).	K1, K2, P2	Lectures, CBL, PBL, videos	21 theory & 10.5 clinical	**110 marks:** Essay, MCQs, Problem-based & Oral
2. Gastrointestinal & Hepatology: Acute Diarrhea, Inflammatory bowel diseases, Malabsorption, Chronic vomiting; GERD, Chronic abdominal pain, Constipation, Peptic disorder, Pancreatitis, Appendicitis, Cholecystitis, Esophageal disorders; Caustic ingestion, Acute hepatitis; Viral hepatitis, Acute liver cell failure; hepatic encephalopathy, Chronic liver disease; Chronic viral hepatitis, Autoimmune hepatitis & Wilson disease, Complications of chronic liver disease: Cholestasis, Portal hypertension, and impaired hepatocellular functions, Liver fibrosis /cirrhosis, D.D. of Hepatomegaly-Hepatosplenomegaly, Ascites, Abdominal distension.	K1, K2, P1, P2	Lectures, CBL, PBL, videos, cases demonstration	21 theory & 10.5 clinical	**91 marks:** Essay, MCQs, Problem-based & Oral
3. Pulmonology and Allergy: Atopy; Allergic rhinitis, eczema, atopic dermatitis, urticaria, angioedema, Bronchial asthma (DD of wheezy infant/child), Acute infections (Bronchiolitis, Pneumonia), Cystic Fibrosis, Interstitial Lung disease, Chronic infection (TB), Congenital malformations (hypoplasia, cystic adenoid malformations, Pulmonary sequestration).	K1, K2, P1, P2	Lectures, CBL, PBL, videos, cases demonstration	21 theory & 10.5 clinical	**111 marks:** Essay, MCQs, Problem-based & Oral
4. Neurology & Metabolic diseases: Microcephaly-Craniostenosis, Congenital anomalies, CNS infections, Cerebral palsy, Neuromuscular disorders [Anterior horn cell disorder, Peripheral nerves disorders, Neuromuscular junction disorders, Muscle disease], Spinal cord disorders, abnormal movements, Neurocutaneous syndromes, Seizures, Conditions that mimic epilepsy, Headache, Stroke, and Increased intracranial tension. Organic Acidopathy, Disorders of: Amino acid Metabolism, Urea Cycle, fatty acids, Mitochondrial disorders, Glycogen storage disease, Peroxisomal disorders, Purine Metabolism, transport and Mineral Metabolism, Mucopolysaccharidosis, cholesterol and neutral lipids, and Lipid Storage Disease.	K1, K2, P1, P2	Lectures, CBL, PBL, videos, cases demonstration	21 theory & 10.5 clinical	**102 marks:** Essay, MCQs, Problem-based, Clinical & Oral
5. Cardiology: Congenital heart diseases (cyanotic & acyanotic), infective endocarditis, Rheumatic fever, Myocarditis, Cardiomyopathy, Pericardial effusion, Kawasaki.	K1, K2, P1, P2	Lectures, CBL, PBL, videos, cases demonstration	21 theory & 10.5 clinical	**102 marks:** Essay, MCQs, Problem-based Clinical & Oral
6. Nutrition: Malnutrition, Obesity, Undernutrition, Rickets (including non-Vit. D deficiency), and Water & electrolyte deficiency (sodium & potassium imbalance).	K1, K2, P1, P2	Lectures, CBL, PBL, videos, cases	16 theory & 3.75 clinical	**75 marks:** Essay, MCQs, PB & Clinical
7. Hematology & Oncology: Chronic Hemolytic anemia, Bone Marrow Failure; Pancytopenia (clinical approach), Coagulation disorders; Hemophilia, Platelet disorders; Purpura, and transfusion medicine. Leukemia-Lymphoma, CNS tumors, Wilms-Neuroblastoma- Hepatoblastoma, Retinoblastoma, Bone tumors (osteosarcoma), Histiocytosis, and Complications of the disease or management.	K1, K2, P2	Lectures, CBL, PBL, videos, cases demonstration	20 theory & 10.5 clinical	**90 marks:** Essay, MCQs, Problem-based, Clinical & Oral

Topics	ILO	Teaching Method	Contact Hours	Marks/ Assessment
8. Rheumatology & Immunology: Juvenile Idiopathic Arthritis, Systemic Lupus Erythematosus, Vasculitis Syndrome, Auto-inflammatory syndrome; FMF, Inflammatory Myopathies (dermatomyositis-scleroderma), Musculoskeletal pain, limp, multisystem diseases, arthritis and arthralgia, joint swelling, hypermobility syndrome, antiphospholipid syndrome. Immune dysregulation disorders (IPEX), and differential diagnosis of immunocompromised children	K1, K2, P2	Lectures, CBL, PBL, videos, cases demonstration	**18** theory & 10.5 clinical	**65 marks)** Written essay, MCQs, Problem-based (55) & oral (10 Marks)
9. Pediatric emergency: -Respiratory: Respiratory distress, croup, pulmonary edema, pleural effusion, hemothorax. -Cardiac: Shock, Cyanotic spells, arrhythmia, Heart failure, Hypertensive emergency, syncope, Chest pain. -Hepato-gastroenterology: Acute vomiting, encephalopathy, GIT bleeding. -Endocrine: DKA, Addisonian crisis. -Hematology: Acute hemolytic anemia/crises, febrile neutropenia, Thrombosis-embolism. -Nephrology: Anuria, Retention. -Metabolic: hyperkalemia, Metabolic acidosis. -Rheumatologic: hemophagocytic syndrome. -Neurology: Stroke, Status epilepticus, Coma (brain death) -Others: dehydration, Pain, Poisoning (Lead-organophosphorus).	K1, K2, P2	Lectures, CBL, PBL, videos	21 theory & 10.5 clinical	**65 marks:** Essay, MCQs, Problem-based & Oral
10. Nephrology: Proteinuria, Hematuria, Renal failure (acute-chronic), Hemolytic uremic syndrome, UTI, RTA, Renal stones, Vesicoureteral reflux, Renal osteodystrophy, Interstitial nephritis (iatrogenic renal disease), and Nocturnal enuresis.	K1, K2, P2	Lectures, CBL, PBL, videos, cases demonstration	10 theory & 6.25 clinical	**54 marks:** Essay, MCQs, Problem-based & Oral
11. Endocrinology and diabetes: Adrenal Gland, Diabetes Mellitus, Thyroid diseases, Untimed puberty, and short stature.	K1, K2, P2	Lectures, CBL, PBL, videos, cases demonstration	10 theory & 6.25 clinical	**45 marks:** Essay, MCQs, Problem-based & Oral
12. Infection: Fever with rash, Fever of unknown etiology, Common infectious agents (Bacterial, Viral, Protozoal, Mycotic and Helminthic.	K1, K2, P2	Lectures, CBL, PBL, videos, cases demonstration	9 theory & 4.75 clinical	**40 marks:** Essay, MCQs, Problem-based & Oral

4.4 Clinical Grand Rounds — ILO Mapping

Grand round sessions at Badr University Hospital will be held twice per month. Each session specifies the mapped ILOs and the formative assessment tool used.

Session	Topic	Mapped ILOs	Formative Assessment Tool
1	History taking for various systemic affections	P2, I2	Mini-CEX
2	General examination	P2	Direct Observation (DOPS)
3	Anthropometric measures & nutritional assessment	P2, K1	OSPE station
4	Vital signs assessment	P2, K1	Direct Observation
5	Dysmorphism — Down syndrome, MPS, Turner	K2, P2	Case-Based Discussion
6	Cardiac examination	P2, I2	Mini-CEX
7	Chest examination	P2, I2	Mini-CEX
8	Abdominal examination	P2	DOPS
9	Neurological examination	P2, I2	Mini-CEX
10	CBC interpretation	K2, I1	Structured written exercise
11	Bleeding profile interpretation	K2, I1	Structured written exercise
12	Liver function tests interpretation	K2, I1	Structured written exercise
13	Urinalysis interpretation	K2, I1	Structured written exercise
14	Plain X-ray interpretation: chest & heart	K1, K2, I1	Structured written exercise

Session	Topic	Mapped ILOs	Formative Assessment Tool
15	Blood gas interpretation	K1, I1	Structured written exercise
16	ECG interpretation	K1, I1	Structured written exercise
17	Imaging interpretation — advanced	K1, K2, I1	Structured written exercise
18	Drug doses: pediatric calculations	K2, P1, PR1	Case-Based Discussion
19	Transfusion medicine	K2, P1, PR1	Case-Based Discussion
20	Evidence-based pediatric guidelines	K2, P1, PR1	Case-Based Discussion
21	Grand round case presentation	P2, I1, I2	Mini-CEX + Peer Feedback

4.4 Thesis Supervision and Assessment Policy

- The thesis (18 credit hours) is mapped to ILOs: K1, K2, P2, LL1, LL2, I1, PR1.
- Each trainee is assigned a primary supervisor (faculty member, minimum rank Lecturer) and a co-supervisor within 3 months of program commencement.
- A research proposal will be submitted and approved by the Departmental Postgraduate Committee by end of Year 1.
- Ethical approval must be obtained from the Faculty Research Ethics Committee and documented before data collection.
- Supervision meetings are documented — minimum monthly meetings with a signed log in the candidate's portfolio.
- Thesis assessment: written thesis examined by two examiners (one internal, one external); followed by an oral viva voce.
- Plagiarism screening required — similarity index threshold ≤ 30% — before formal submission.

5. Assessment Framework

5.1 Assessment Policy

This assessment policy governs all summative and formative assessments in the MSc Pediatrics program. It is shared with all trainees, supervisors, and examiners at the start of each academic year.

Policy Element	Specification
Purpose	Assessment serves the dual purpose of (1) assuring the competence of graduates for patient safety, and (2) supporting trainee learning and progression throughout the program
Blueprint	All assessments are mapped to program ILOs and NAQAAE Competency Areas. The assessment blueprint is reviewed annually by the Departmental Postgraduate Committee
Balance	Formative WBA (Mini-CEX, DOPS, CBD) integrated throughout Year 2; summative assessment at end of Part I (written & OSPE per course) and end of Part II (written, clinical, oral for PEDI6011; thesis + viva for the research component)
Standard-Setting	MCQ papers: Modified Angoff method applied by a panel of at least 3 examiners. OSCE: borderline group method. Oral examination: structured marking rubric with examiner calibration session before each examination cycle
Fail and repeat	Candidates who fail Part I course may re-sit once in the same academic year. Failure at Part II examination: full re-sit after minimum 6 months' remediation program. Maximum 3 attempts at Part II examination
Reasonable Adjustments	Trainees with documented disabilities apply to the Program Director. The Departmental Postgraduate Committee approves adjustments (extra time, accessible venue, modified format) on a case-by-case basis
Conflict of Interest	Any examiner who has directly supervised a candidate for >3 months must declare the relationship to the Program Director. The Program Director determines whether recusal is required

5.2 Formative Assessment System

The following formative assessment tools are formally integrated into the program and documented in each candidate's logbook. All formative assessments are linked to structured feedback.

Tool	Description	Frequency	ILOs Assessed	Responsible Party
Mini-CEX	Direct observation of trainee in a real clinical encounter; structured rating (1–6) with immediate feedback	Min. 6/year in Year 2	P1, P2, I2	Clinical Supervisor
DOPS	Direct observation of a practical procedure; structured feedback form	Min. 4/year in Year 2	P1, P2	Clinical Supervisor
Case-Based Discussion (CBD)	Discussion of a managed case to assess clinical reasoning and knowledge application	Monthly (grand rounds)	K1, K2, I1	Supervising Consultant
Reflective Portfolio	Trainee documents clinical experiences, learning needs, and development actions	Ongoing; reviewed each semester	LL2, PR1	Primary Supervisor
Self-Assessment Checklist	Trainee self-rates competence against ILOs at start and end of each year	Twice yearly	All ILOs	Trainee + Supervisor
Logbook Review	Supervisor reviews completed logbook entries at 3-month intervals; progress meeting documented	Quarterly	P1, P2	Primary Supervisor

5.3 Assessment QA Mechanisms

- Pre-examination: all MCQ items reviewed by a second examiner for clarity, accuracy, and appropriate difficulty level before deployment
- Post-examination: item analysis performed for all MCQ papers (facility index, discrimination index); results reviewed by the Postgraduate Committee
- OSCE inter-rater reliability: paired examiner scoring on ≥10% of OSCE stations per cycle; discrepancies >2 marks reviewed and adjudicated
- External examiner: submits annual written report to the Dean on assessment quality, standard-setting, and program recommendations
- Post-examination survey: administered to all trainees; results reviewed by the Postgraduate Committee and used for examination improvement

6. Assessment Blueprints

6.1 Part I Assessment Blueprint

Each Part I course carries 30 marks, assessed via a combination of written essay, MCQ & OSPE. All items are mapped to program ILOs.

Course	Written & MCQ	OSPE	K1	K2	P1	P2	Total
PEDI6001	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6002	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6003	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6004	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6005	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6006	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6007	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6008	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI6009	24 Marks	6 Marks	✓	✓		✓	30 Marks
PEDI60010	24 Marks	6 Marks	✓	✓		✓	30 Marks

6.2 Part II Assessment Blueprint — PEDI6011 (Pediatric Medicine)

Minimum pass: 60% overall with no component failure.

Subspecialty	Written: essay, MCQS & PBL	Clinical & OSPE	Oral	Total
1. Neonatology	60		50	110
2. Gastroenterology & Hepatology	56	35	-	91
3. Pulmonology & Allergy	56	55	-	111
4. Neurology & Metabolic	56	46	-	102
5. Cardiology	56	46	-	102
6. Nutrition	20	55	-	75
7. Hematology & Oncology	56	34	-	90
8. Rheumatology & Immunology	55	-	10	65
9. Pediatric Emergency	55	-	10	65
10. Nephrology	35	9	10	54
11. Endocrinology & Diabetes	35	-	10	45
12. Infection	30	-	10	40
TOTAL	**570**	**280**	**100**	**950**

Note: Mark reconciliation confirmed by Program Director and External Examiner signature below:
Program Director: …… Signature: …… Date: ……
External Examiner: …… Signature: …… Date: ……

7. Selection, Progression, and Appeals Policy

Policy Element	Required Content
Selection Criteria	MBBCh from a recognized medical school with minimum grade as per faculty bylaw; structured interview score; evidence of English language proficiency; no outstanding disciplinary actions at previous institution
Intake Capacity	Maximum intake per cohort is determined annually by the Departmental Postgraduate Committee and linked to available supervisory capacity (recommended ratio 1:4 supervisor: trainee) and clinical training resources at Badr University Hospital
Progression Requirements	Candidates must pass all Part I courses (PEDI6001–PEDI6010) before advancing to PEDI6011; logbook completion requirements for Year 2 must be met; minimum 75% attendance at all program activities; satisfactory mid-program competency evaluation
Maximum Duration	5 years from date of first enrolment — enforced with a formal extension request and Departmental Postgraduate Committee review process
Voluntary Withdrawal	Documented process requires a formal meeting with the supervisor and Program Director; academic counselling required before withdrawal is finalized; re-entry assessed on a case-by-case basis
Performance Improvement	Where a candidate is at risk of failure: (1) formal meeting with supervisor to identify issues; (2) written performance improvement plan with specific targets and timeline; (3) Departmental Postgraduate Committee review if targets not met
Appeals Mechanism	Written appeal submitted to the Departmental Postgraduate Committee within 14 days of the decision. If unresolved, escalation to the Faculty Board. Outcome documented in the candidate's official record. Legal rights under university regulations preserved
International Graduates	Equivalence assessment of primary medical degree by the relevant Egyptian authority required. Induction program addressing local health system context, clinical practices, and language support provided before clinical placement begins

8. Postgraduate Doctor Support and Wellbeing

The Faculty of Medicine and Badr University Hospital are committed to the well-being of all postgraduate trainees. The following provisions are available to all enrolled MSc Pediatrics candidates and are documented in the student handbook.

Support Domain	Provision	Responsible Party
Physical Health	Access to occupational health services at Badr University Hospital; documented needle-stick injury protocol; ergonomic guidance for clinical work environments	Hospital Administration
Psychological Wellbeing	Access to confidential counseling through the Faculty Psychology and Social Support Unit; peer support network facilitated by the trainee representative	Psychology & Social Support Unit
Conflict Resolution	Structured mediation process available for conflicts between trainee and supervisor; mediated by Program Director; escalation to Head of Department as required	Head of Department
Financial Guidance	Examination fee schedule published annually; information on any available stipend or remuneration provided at induction	Department Administration
Career Development	Annual career planning meeting with primary supervisor; information on subspecialty pathways, research opportunities, and postdoctoral training provided	Program Director
Workplace Facilities	Rest areas, food access, and prayer facilities at Badr University Hospital training site	Hospital Administration

9. Teaching and Supervisory Staff Policy

- Staff establishment: minimum supervisor-to-trainee ratio of 1:4 for clinical supervision; qualification requirements documented per teaching role; updated annually by the Head of Department
- Supervision policy: each trainee has a named primary supervisor and co-supervisor; supervision meetings (minimum every 8 weeks) are documented in the candidate's logbook; supervision log maintained at the departmental level
- Code of conduct: respectful professional relationships; no exploitation of trainee labor; timely and constructive feedback obligation; declaration of conflicts of interest in assessment
- Supervisor CPD: all supervisors attend at least one faculty development activity per academic year related to their teaching or supervisory role (facilitated by the E-Learning & IT Unit Faculty Development Program)
- Performance monitoring: annual 360-degree feedback from trainees on supervisory quality; anonymized results reviewed by the Head of Department; developmental support offered where needed

10. Program Governance Structure

Committee / Role	Composition	Responsibilities
Program Director	Senior faculty member, Department of Pediatrics and Neonatology	Overall program oversight; QA Unit liaison; annual program report to Faculty Board; day-to-day operational decisions
Departmental Postgraduate Committee	Program Director + 3 senior staff + 1 trainee representative; meets at least twice per semester	Curriculum review; assessment decisions; trainee progression and dismissal; intake capacity decisions; accreditation evidence preparation
QA Unit Representative	Vice Director, Quality Assurance Unit	Standards alignment; external benchmarking; accreditation evidence reviews; annual QA report
Trainee Representative	Elected annually by enrolled trainees	Feedback conduct between trainees and committee; participates in curriculum review; reports on welfare concerns
External Examiner	Senior pediatrician from outside Capital University, appointed for 3-year term	Assessment quality assurance; benchmarking of standards; annual report to Dean; examination calibration
Faculty Board	Dean's Office	Approval of major curriculum changes; policy ratification; oversight of QA compliance; degree conferral

11. WFME 2023 Benchmarking — Compliance and Action Table

This table constitutes the official benchmarking record for the MSc Pediatrics program against WFME PGME Global Standards 2023. It is updated annually as part of the QA cycle and submitted with each accreditation self-study report. Status reflects the position at time of this document's approval (Version 2.0, May 2026).

Std.	Area	Status	Required Action	Responsible	Target
1.1	Mission & Values	**Met**	Mission statement adopted in Version 2.0; annual review by PG Committee	Program Director	Ongoing
2.1	Curriculum & Licensure	**Partial**	Add explicit statement linking completion to MSc award and specialty registration	Program Director	Semester 1
2.2	ILOs	**Met**	10-ILO framework covering all NAQAAE domains adopted in Version 2.0	PG Committee	Ongoing
2.3	Curriculum Organisation	**Met**	Curriculum map and constructive alignment tables added; annual review required	Program Director	Ongoing
2.4	Curriculum Content	**Met**	Maintain; ensure health systems science is explicitly labelled in PEDI6005 and PEDI6011	Course coordinators	Ongoing
2.5	Learning Methods	**Met**	Maintain; document SDL facilitation; catalogue simulation resources	Course coordinators	Ongoing
2.6	Sites of Learning	**Partial**	Formalise Badr Hospital site approval; produce site QA file and facilities inventory	Program Director	Semester 2
2.7	Research Opportunities	**Met**	Thesis supervision policy added in Version 2.0	Program Director	Ongoing
3.1	Assessment Policy	**Met**	Formal assessment policy document added in Version 2.0	QA Unit + PG Committee	Ongoing
3.2	Formative Assessment	**Met**	Mini-CEX, DOPS, CBD, and portfolio system added in Version 2.0	Clinical Supervisors	Semester 1
3.3	Summative Assessment	**Met**	PEDI6011 mark blueprint reconciled and signed in Version 2.0; standard-setting method documented	PG Committee	Ongoing
3.4	Assessment QA	**Met**	Assessment QA mechanisms documented in Version 2.0	QA Unit	Ongoing
4.1	Selection Policy	**Met**	Full selection, progression and appeals policy added in Version 2.0	Program Director	Ongoing
4.2	Progression & Exit	**Met**	Performance improvement plan process documented in Version 2.0	Program Director	Ongoing
4.3	International Graduates	**Met**	Equivalence and induction policy added in Version 2.0	Program Director	Before next intake
4.4	Workload & Study Balance	**Partial**	Document expected weekly hours, leave entitlement, and exam preparation time	Dept. Administration	Semester 1
4.5	Trainee Safety	**Partial**	Define legal status in clinical care; establish risk reporting process at Badr Hospital	Hospital + Faculty	Semester 1
4.6	Remuneration & Fees	**Partial**	Publish examination fee schedule; clarify stipend/payment status for trainees	Faculty Administration	Semester 1
4.7	Health & Welfare	**Met**	Postgraduate doctor support and wellbeing policy added in Version 2.0	Faculty + Hospital	Ongoing
5.1	Staff Establishment	**Met**	Teaching staff policy added in Version 2.0	Dept. Head	Ongoing

Std.	Area	Status	Required Action	Responsible	Target
5.2	Teacher Performance	**Partial**	Develop and publish code of conduct; implement 360-degree feedback system	Dept. Head + QA	Semester 2
5.3	Staff CPD	**Met**	Annual supervisor CPD requirement documented; facilitated by E-Learning & IT Unit FDP	E-Learning Unit + Dept.	Ongoing
6.1	Physical Facilities	**Partial**	Produce facilities inventory for Badr Hospital and faculty buildings	Program Director	Semester 1
6.2	Work-Based Education	**Partial**	Formalize Badr Hospital as approved training site with patient mix documentation	Program Director	Semester 1
6.3	Information Resources	**Partial**	Extend reference list to all Part I courses; confirm library and e-resource access	Dept. + Library	Semester 1
7.1	Quality Improvement	**Partial**	Formalize annual QA cycle; produce program evaluation report template	QA Unit	End of AY
7.2	Patient Safety	**Partial**	Define trainee scope of practice; establish incident reporting at training sites	Hospital + Director	Semester 1
8.1	Governance	**Met**	Governance structure documented in Version 2.0	Dept. Head + Dean	Ongoing
8.2	Shared Governance	**Partial**	Define roles of all bodies (university, hospital, professional) in program governance	Dean's Office	Semester 1
8.3	Trainee Representation	**Met**	Trainee representative mechanism established in governance structure (Version 2.0)	Program Director	Ongoing
8.4	Administration	**Partial**	Assign dedicated administrative support for MSc program; document reporting lines	Dean's Office	Semester 1

Symbol	Status	Meaning
	Met	Standard is substantially addressed in current Version 2.0 documents
	Partial	Standard is partially addressed — remaining actions tracked with responsible parties and deadlines
	Absent	Standard not yet addressed — must be developed; no outstanding items in Version 2.0

12. Approval and Sign-Off

These Program Specifications (Version 2.0) are submitted to the Faculty Council of the Faculty of Medicine, Capital University, for review and formal approval.

Role	Name, Signature, and Date
Program Director Dept. of Pediatrics and Neonatology	Name: …… Signature: …… Date: ……
Head of Department Dept. of Pediatrics and Neonatology	Name: …… Signature: …… Date: ……
Vice Director, Quality Assurance Unit	Name: …… Signature: …… Date: ……
Dean's Office Endorsement	Name: …… Signature: …… Date: ……