



COURSE SPECIFICATION

2nd part MD Pediatrics–Elective Course Intensive Care
Faculty of Medicine– Mansoura University

- **Administrative information**

(1) Programme offering the course.	MD Pediatrics (PED 600)
(2) Department offering the programme.	Pediatrics
(3) Department responsible for teaching the course.	Pediatrics
(4) Part of the programme.	2nd part – Elective course Intensive Care
(5) Date of approval by the Department's council	27/4/2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title.	Elective course MD Intensive Care
(8) Course code.	PED 609 AIC
(9) Total teaching hours.	45 hours

(1) Course Aims:

The broad aims of the course are as follows: to provide the candidate with

1. Essential knowledge about the pathophysiology, epidemiological, clinical presentation and management of pediatric critical illnesses.
2. Skills necessary to diagnose and manage different life threatening pediatric emergencies.
3. Abilities to apply national and international standards of patient care using the principles of evidence based medicine competently.

(2) Intended Learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to:

A. Knowledge and Understanding

- **A1.** Recognize tools for maintaining airway patent and artificial airway.
- **A2.** Recognize the conventional modes of mechanical ventilation, indications and complications of each.
- **A3.** List tools of non invasive ventilation and recognize their indications, contraindications and complications.
- **A4.** List indications, contraindications, complications and pitfalls in high frequency ventilation
- **A5.** Record precautions during transport of the ventilator-supported patient
- **A6.** Memorize indications, contraindications, complications and technique of ECMO
- **A7.** Describe how to manage and monitor mechanically ventilated patients.
- **A8.** Discuss technique of weaning and extubation from mechanically ventilated patients.
- **A9.** List physiological effects of mechanical ventilation on patients..
- **A10.** Recognize Lung protective ventilation
- **A11.** List and describe the ventilator parameters and precautions in acute severe asthma.
- **A12.** Explain complications of mechanical ventilation.
- **A13.** Recognize prevention and management of ventilator associated lung injury.
- **A14.** Recognize epidemiology and mechanisms of ventilator associated pneumonia.
- **A15.** Recognize prevention and management of ventilator associated pneumonia .

B. Intellectual skills

- **B1.** Predict appropriate ventilator type and parameters for different conditions.
- **B2.** Interpret arterial blood gases and their role in management of ventilated patients
- **B3.** Distinguish the key monitoring modalities (as pulse oximetry, end-tidal CO₂ , monitoring and invasive pressure monitoring) and their role in follow up ventilated patients.
- **B4.** Distinguish the various pre-arrest and cardiac arrest rhythms and their management .
- **B5.** Construct appropriate management strategies for prevention of ventilator pneumonia and injury.
- **B6.** Plan a safe transportation for ventilated patients.

(3) Course Content:

Course	Title	Teaching hrs	
		<i>lectures</i>	<i>ILOs</i>
Intensive Care	Artificial airway	3	A1-B1
	Conventional modes of mechanical ventilation	3	A2- B1
	Non invasive ventilation	3	A3- B1
	High frequency ventilation	3	A4- B1
	Transport of the ventilator-supported patient	3	A5-B2-B6
	ECMO	3	A6-B2
	Management of mechanical ventilation	3	A7-B2
	Weaning and extubation from mechanical ventilation	3	A8-B2-B3
	Physiologic effects of mechanical ventilation	3	A9-B2
	Lung protective ventilation	3	A10-B3
	Ventilation in acute severe asthma	3	A11-B3
	Complications in mechanical ventilation (I)	3	A12-B3-B4
	Ventilator associated lung injury	3	A13-B4
	Ventilator associated pneumonia(1)	3	A14-B5
	Ventilator associated pneumonia(2)	3	A15-B5
Total		45	

(4)Teaching methods:

4.1: lectures and scientific seminar

4.2: Self learning

(5) Assessment methods:

5.1....Written. for assessment of..... (knowledge, intellectual skills)

5.2.... Oral for assessment of.....(knowledge, intellectual skills)

5.3 MCQ continuous assessment for assessment of..... (knowledge, intellectual skills)

Assessment schedule : Semester & Final Exam.

Course	Marks		
	MCQ (Semester Exam)	Essay (Final Exam)	Oral
Intensive Care	12	48	30
Total	90		

(6) References of the course:

- Nelson's Text book of Pediatrics
- Rogers' handbook of Pediatric Intensive Care.
- European resuscitation council
- Pediatric Intensive Care Unit--Core Curriculum, objectives, and competencies. Available at http://pedscm.org/FILE-CABINET/Practical/Akron_pdfs/3CORE.PDF
- Training Program - Pediatric Critical Care Medicine From The American Board of Pediatrics Subspecialty Board and Society of *Critical Care* Medicine (SCCM)
- Advanced Pediatric Intensive Care Medicine Fellowship The McGill University Pediatric Critical Care Medicine (PCCM) program (Montreal Children's Hospital)

(7) Facilities and resources mandatory for course completion

- **LECTURE HALLS:** One hall for lecturers is available at Mansoura University Children's Hospital (MUCH). The hall is equipped with white board, data show, and computer.

- **CLINICAL ROUNDS HALLS:**

One hall for clinical rounds is available at Mansoura University Children Hospital (MUCH). Computer and AV aids facilities are available with prior arrangement.

- **LIBRARY:**

The library is located on the 4th floor of the Faculty of Medicine, Mansoura University.

- **FACILITIES FOR TUTORS**

In addition to the library on 4th floor of the Faculty of Medicine, Mansoura University, there is a specialized pediatric library at MUCH (Professor Mohammad Hafez's Library).

The offices of all staff at MUCH are equipped with computers and high speed internet connection.

International databases are available through the website of the university (www.mans.edu.eg)

Course coordinator: Dr. Ahmed El-Husseiny

Head of the department: Prof. Ali Shaltout

Date: