PROGRAMME SPECIFICATION

(MD Anaesthesia and Surgical Intensive Care program)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Program Title & Code	**Postgraduate Doctorate degree of Anesthesia**
(2) Final award/degree	**MD**
(3) Department (s)	**Anaesthesia and Surgical Intensive Care**
(4) Coordinator	**Maged Talaat Salama**
(5) External evaluator (s)	**Prof. Dr./ Zinab Ebrahem El-Hosary** ***Faculty of Medicine, Zagazig University***
(6) Date of approval by the Department`s council	20/4/2016
(7) Date of last approval of program specification by Faculty council	9-8-2016

(B) Professional information

(1) Program Aims:

The broad aims of the Program are as follows:

1-Within the philosophy of M.D., we aim to foster the development of personal communication skills with much emphasis on leadership & decision making skills as well as informational technology orientation.

2- The degree is designed to prepare the candidate for Systems-based clinical practice where they must demonstrate an awareness of and responsiveness to the larger context and system of health care.

3- The program is designed to give health science professionals an in-depth anesthesia, surgical intensive care and pain management.

4- The program aim to provide optimal management strategies of complications and critically ill patients in anesthesia and ICU.

5- To provide the candidate with updated data and researches concerned with practice of peri-operative (pre-operative, intra-operative and post-operative) care.

6- Providing opportunities to gain knowledge, practice and studying the recent advance in pain clinics for pain assessment & treatment

7- Allowing physicians to have the experience in collecting scientific data, how to prepare a research project, writing essays and scientific papers.

8- Provide added knowledges from other sciences that help in effective management of patients in field of anesthesia, ICU and pain management

Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

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

A- Knowledge and Understanding

A1	Define general anesthesia, pharmacodynamics, pharmacokinetics, advantages and disadvantages with emphasis on importance of advanced research in this field
A2	Define regional anesthesia, pharmacodynamics, pharmacokinetics,, advantages and disadvantages with emphasis on importance of advanced research in this field
A3	Recognizes basic and advance in peri-operative monitoring care (pre-operative, intra-operative & post-operative), and identifies how to deal with complications
A4	Define basic pharmacology & usage of anesthetic, analgesic drugs.
A5	Identifies anesthetic impact on different body systems
A6	Define Basics and recent advance in ICU management (pharmacological and practical aspects)
A7	Define advanced practice in life support (pharmacological and practical aspects)
A8	Recognize pain pathway, modulation and management.
A9	Define types of anesthesia machines, breathing systems, medical gas supply, operation room design and safety
A10	Identifies advance in radiology related to anesthesia
A11	Recognize approach for management of trauma patients

B- Intellectual skills

B1	Integrate the results of preoperative evaluation into an appropriate intraoperative decision making as regard pharmacological anesthetic plane.
B2	Interprets perioperative monitoring care for solving critical clinical problems under anesthesia.
B3	Construct appropriate management strategies for patients with common diseases, both acute and chronic of all body system according to monitoring care during anesthesia
B4	Define Origin, course, relations , distribution and supply of all body vessels ,nerves and muscles physiology using recent technology
B5	Design an initial course of management according to clinical measurements for stabilization of trauma patients.
B6	Evaluate relevant and current data from literature, using information technologies, additional science and library resources, in order to help solve a clinical problem based on evidence (EBM).
B7	Integrate statistical results of clinical examination and laboratory test findings into an appropriate management
B8	Interpret reading of clinical measurement for managing cases during anesthesia, ICU and pain management.

C-Professional/practical skills

C1	Perform full physical examination of patients with acute and chronic clinical conditions appropriate to the age, sex and record patients ' data appropriately for taking decision of anesthetic fitness.
C2	Perform cannulation of central and peripheral veins and clinical measurement of central venous pressure, pulmonary capillary wedge pressure and jugular venous oxygen saturation.

C3	Practices for video assisted laryngoscopy, fiberoptic intubation, checking anesthetic machine and monitoring.
C4	Clinical evaluation of recovery and recognize postoperative complications.
C5	Provide emergency measures for injured and critically ill patients.
C6	Demonstrate competency in advanced cardiopulmonary resuscitation and post resuscitation care.
C7	Formulate practical and pharmacological management plans for common diseases and acute emergencies in ICU and pain management.
C8	Apply medical researches results and additional science for problems solving under supervision of senior staffs.
C9	Adopt suitable measures for management of multiple trauma patients
C10	Interpret chest and cervical X-rays, ultrasonography, C.T chest and C.T brain.

D- Communication & Transferable skills

D1	Communicates with senior stuff to adopt plain for anesthesia of patients with different diseases according to data obtained.
D2	Work effectively in team to manage complications according to scientific base.
D3	Perform CPR in cardiac arrest according to advanced protocols for life support.
D4	Work effectively in team as team leader to solve problems related to patients.
D5	Apply safety and infection control measures during practice according to data from clinical measurements

Program objectives- ILOs Matrix

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
Objective 1							*		*		
Objective 2	*	*	*								
Objective 3	*	*	*	*		*		*			
Objective 4	*	*	*		*	*					
Objective 5			*								
Objective 6				*				*			
Objective 7											
Objective 8										*	*

	B1	B2	B3	B4	B5	B6	B7	B8
Objective 1			*					
Objective 2	*	*	*					
Objective 3	*	*	*	*	*			*
Objective 4		*			*			
Objective 5	*	*					*	
Objective 6						*		
Objective 7								
Objective 8					*	*		

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
Objective 1						*				
Objective 2	*				*					
Objective 3	*				*		*	*		
Objective 4				*	*		*		*	
Objective 5	*			*						
Objective 6									*	
Objective 7		*	*						*	
Objective 8									*	*

(2) Academic standards:

A comparison between **ARS, NARS, program ILOs and courses** are attached in Appendix I. External reference points/Benchmarks are attached in Appendix II which is used as academic standard for the program (ARS)

3.a- External reference points/benchmarks are selected to confirm the appropriateness of the objectives, and ILOs.

- The Anaesthesia and Surgical Intensive Care department select the MD Anesthesia and Surgical Intensive Care program, Postgraduate Medical Education, School of Clinical and Experimental Medicine, The University of Birmingham as an external reference point. http://www.birmingham.ac.uk/postgraduate/courses/research/med/anaesthetics-intensive-care.aspx

3.b- Comparison of the specification to the selected external reference/ benchmark:

- At least 85% program aims of the Benchmark are covered by the current program.
- The program courses are matched by 60% degree to those offered by the international universities except in the context of credit hours, and the type of degree offered.
- Assessment method and timing are differing from the structure of the program specification of the benchmark.
- The degree and certificates of University of Birmingham are offered through Distance Education which is different from our program's teaching methods.

(3) Curriculum structure and contents:

4.a- Duration of the program :

6 semesters

4.b- program structure:

Candidates should fulfill a total of 60 credit hours

- 4.b.1: Number of credit hours (minimum):

  First part: 5,

  Second part: 25,

  Logbook: 15,

  Thesis: 15

- 4.b.2: Teaching hours/week:

First part:

Basics of Biophysics and Clinical measurements.

Second part:

Applied Physiology related to Anesthesia & Intensive care.

Applied Pharmacology related to Anesthesia & Intensive Care.

Anesthesia.

Intensive Care.

Pain Management.

Radiology in anesthesia.

Trauma management.

(4) Program courses:

First part

a- Compulsory courses:

Course Title	Course Code	NO. of hours per week					Total teaching hours
		Theoretical		Laboratory /practical	Field	Total	
		Lectures	seminars				
Basics of Biophysics And Clinical measurements	ANET 628 BB ANET 628 CM	5				75	75 lecture

a- Elective courses:

N/A

Second part

a- Compulsory courses (thesis will be included in this table):

Course Title	Course Code	NO. of hours per week					Total teaching hours
		Theoretical		Practical/ clinical applied in OR	Field	Total	
		Lectures	seminars				
Applied Physiology related to Anesthesia & Intensive care	ANET 628 PHY	1	------		-----		15 lecture
Applied Pharmacology related to Anesthesia & Intensive Care	ANET 628 PHA	1	------	---	-----		15 lecture
Anesthesia	ANET 628 AN	12	------	7	-----		180 lecture 210 clinical
Intensive Care	ANET 628 IC	5		4	-----		75 lecture 120 clinical
Pain Management	ANET 628 PM	4	-----	4	-----		60 lecture 120 clinical
Radiology in anesthesia	ANET 628 RA	2	------	-----	-----		30 lecture
Trauma management	ANET 628 TR	2	------	-----	-----		30 lecture

Program- course ILOs Matrix

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
Basics of Biophysics and Clinical measurements			*						*		
Applied Physiology related to Anesthesia & Intensive care	*				*						
Applied Pharmacology related to Anesthesia & Intensive Care	*	*		*		*	*	*			
Anesthesia	*	*	*								
Intensive Care						*	*				
Pain Management				*				*			
Radiology anesthesia										*	
Trauma											*

	B1	B2	B3	B4	B5	B6	B7	B8
Basics of Biophysics and Clinical measurements						*		
Applied Physiology related to Anesthesia & Intensive care				*				
Applied Pharmacology related to Anesthesia & Intensive Care	*							*
Anesthesia		*	*			*	*	*
Intensive Care					*	*	*	
Pain Management						*	*	
Radiology anesthesia						*		
Trauma					*	*		

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
Basics of Biophysics and Clinical measurements										
Applied Physiology related to Anesthesia & Intensive care										
Applied Pharmacology related to Anesthesia & Intensive Care										
Anesthesia	*			*				*		
Intensive Care					*	*	*	*		
Pain Management								*		
Radiology anesthesia										
Trauma										

(5) program admission requirements:

●General requirements:

By laws regulating post graduate Studies.

●Specific requirements :

N/A

(6) Regulations for progression and program completion:

First part:

- **Minimally accepted attendance is 75%.**

Second part:

1- Attendance Criteria:

- Minimally accepted attendance in each course is 75%.

2-Log book:

-for attending

- Conferences: at least 3 conferences
- thesis discussions: at least 75% of thesis discussed in the department
- seminars: at least 75% of Anaesthesia and Surgical Intensive Care department seminars
- Workshops: at least 2 workshops related to the research field

-The log should be fulfilled and signed by Head of the department.

3-Clinical work:

-Clinical rotation according to the schedule determined by the supervisors

4- Seminars:

-at least 2 seminars in topics determined by the supervisors must be prepared and presented by the candidate.

Final exam:

First part:

المقرر	الاختبار	MCQ	الدرجة تحريري
الفيزياء الحيوية والقياسات الإكلينيكية	إختبار تحريري مدته ثلاث ساعات يشمل اختبار MCQ (أسئلة متعددة الاختيارات) .	20	80

Second part:

المقرر	الاختبار	الدرجة				إجمالي
		تحريري	MCQ	شفهي	إكلينيكي	
التخدير	اختبار تحريري مدته ثلاث ساعات + إختبار شفهى + إختبارإكلينيكى	96	24	٥٠	٥٠	٢٢٠
العناية المركزة الجراحية	اختبار تحريري مدته ساعة ونصف ساعة (ورقة واحدة) + إختبار شفهى + إختبارإكلينيكى	48	12	٢٥	٢٥	١١٠
علاج الألم	اختبار تحريري مدته ساعة ونصف ساعة (ورقة واحدة) + إختبار شفهى + إختبارإكلينيكى	48	12	٢٥	٢٥	١١٠
الفارماكولوجيا التطبيقية	اختبار تحريري (ورقة واحدة) مدته ساعة ونصف ساعة	64	16			٨٠
الفسيولوجيا التطبيقية	اختبار تحريري (ورقة واحدة) مدته ساعة ونصف ساعة	64	16			٨٠
المقرر الاختياري	اختبار تحريري مدته ساعة	32	8	١٠		٥٠

(7) Evaluation of Program's intended learning outcomes (ILOs):

Evaluator	Tools*
Internal evaluator : Prof. Dr./ Ahmed Atia Daif Prof. Dr./ Nabil Abd El-Raof Abd El-Megeed Prof. Dr./ Shreif Abdo Mousa	Observation Questionnaire Workshops Group discussion
External Evaluator: Prof. Dr./ Zinab Ebrahem El-Hosary Faculty of Medicine, Zagazig University	Reviewing according to external evaluator checklist report
Senior student : **none**	
Alumni: **none**	
Stakeholder: **none**	

* TOOLS= QUESTIONNAIRE, INTERVIEW, WORKSHOP, COMMUNICATION, E_MAIL

We certify that all information required to deliver this program is contained in the above specification and will be implemented. All courses specification for this program are in place.	
Program coordinator: Name: Dr/ Maged Talaat Salama	Signature & date:
Dean: Name: Prof Dr/ Said Abdelhady	Signature & date:
Executive director of the quality assurance unit: Name: Prof Dr/ Seham Gad Elhaq	Signature & date: