PROGRAMME SPECIFICATION

(MSc Anaesthesia and Surgical Intensive Care program)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Program Title & Code	**Postgraduate master degree of Anesthesia** and Surgical Intensive Care
(2) Final award/degree	**M.Sc.**
(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- To educate students detailed study about types of general anesthesia, regional anesthesia, mechanism of action, their advantages and disadvantages
2- To provide the students the relationship of basic pharmacology and physiology with anesthetic management for different body systems
3- To provide the students with basics in peri-operative (pre-operative, intra-operative and post-operative) care.
4- To enable the students to practice the principles of management of critically ill patients in ICU
5- To enable the students to practice the principles in pain clinics for pain assessment & management
6- Allowing students to have the experience in different medical sciences help in better management of variable patients.

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 basics about types of general anesthesia, mechanism of action, physiology of different body systems, advantages and disadvantages
A2	Define basics about types of regional anesthesia, mechanism of action, advantages and disadvantages
A3	Recognize basics in peri-operative assessment and 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 physiology and diseases affecting different body systems and its implementation on anesthesia, ICU and pain management of variable cases
A6	Define Basics in ICU management (pharmacological and practical aspects)
A7	Define Basic life support (evidence base and practical aspects)
A8	Recognize physiology and pharmacology of pain control medicine and management
A9	Define different types of anesthetic apparatuses, breathing systems and medical gas supply.
A10	Identifies anatomy of body regions and its implementation on anesthesia, ICU and pain management of variable cases
A11	Identifies basics of radiology related to anesthesia
A12	Recognize the approach to assess and stabilize management of trauma patients

B- Intellectual skills

B1	Integrate the results of preoperative evaluation into an appropriate intraoperative pharmacological anesthetic plane.
B2	Interprets perioperative monitoring care for solving critical clinical problems under anesthesia.
B3	Define Origin, course, relations , distribution and supply of all body vessels ,nerves and muscles physiology
B4	Integrate clinical measurements for stabilization trauma patients.
B5	Interpret relevant and current data from additional science and library in order to help solve a clinical problem based on evidence (EBM).
B6	Integrate history, physical examination and laboratory test findings to assess patients
B7	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, gender.
C2	Perform cannulation of central and peripheral veins and interpret ECG monitoring.
C3	Practices for laryngoscopy, intubation and monitoring.
C4	Clinical evaluation of patient recovery.

C5	Provide emergency measures for injured and critically ill patients.
C6	Demonstrate competency in cardiopulmonary resuscitation and basic life-support.
C7	Formulate practical and pharmacological management for common diseases and acute emergencies in ICU.
C8	Apply medical researches results and additional science for problems solving under supervision of senior staffs.
C9	Interpret of chest and cervical X-rays, C.T brain.

D- Communication & Transferable skills

D1	Manage of anesthesia in different diseases according to data obtained according to plain adopted be senior stuff.
D2	Perform CPR in cardiac standstill according to basic life support.
D3	Work effectively within team as team member
D4	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	A12
Objective 1	*	*										
Objective 2				*	*	*						
Objective 3			*									
Objective 4						*	*					
Objective 5								*				
Objective 6									*	*	*	*

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

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

(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 MSc 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:

4 semesters

4.b- program structure:

Candidates should fulfill a total of 45 credit hours.

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

First part: 5,
Second part: 18,
Logbook: 14,
Thesis: 6,
Scientific activities 2

●4.b.2: Teaching hours/week:

First part:

Applied anatomy
Applied physiology
Applied pharmacology
Basics of biophysics and clinical measurements.
Internal medicine

Second part:

Pharmacological basics for Anesthesia & Intensive Care
Physiological Basics for 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		Clinical /practical	Field	Total	
		Lectures	seminars				
Applied Physiology	ANET 503	1	----	---		1	15 hs lecture
Applied Anatomy	ANET 501	1	-----	----		1	15 hs lecture
Applied Pharmacology	ANET 506	1	------	---------		1	15 hs lecture
Internal Medicine	ANET 510	1	------	1		2	15 hs lecture 30 hs clinical
Basics of Biophysics & Clinical Measurements	ANET 528 BCM	2	------	---------		2	30 hs 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				
Pharmacological basics for Anesthesia & Intensive Care	ANET 528 PHAI	1	------	------	-----		15 hr lecture
Physiological Basics for Anesthesia & Intensive Care	ANET 528 PHBAI	1	----	------	-----		15 hr lecture
Anesthesia	ANET 528 AN	9	-----	10	-----		135 hr Lecture 300 hr clinical
Intensive Care	ANET 528 IC	3	----	2	-----		45 hr Lecture 60 hr clinical
Pain Management	ANET 528 PM	3	----	2			45 hr Lecture 60 hr clinical
Radiology in anesthesia	ANET 528 RA	1					15 hr lecture
Trauma management	ANET 528 TR	1					15 hr lecture

Courses- Program MSc ILOs Matrix

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
Basics of Biophysics and Clinical measurements			*						*			
Applied Physiology related to Anesthesia & Intensive care					*			*				
Applied Pharmacology related to Anesthesia & Intensive Care				*				*				
Applied Anatomy related to Anesthesia & Intensive Care										*		
Internal medicine					*							
Pharmacological basics for anesthesia & intensive care	*	*		*		*						
Physiological basics for anesthesia & intensive care	*	*										
Anesthesia	*	*	*	*	*		*			*		
Intensive Care				*	*	*	*					
Pain Management				*	*			*		*		
Radiology in anesthesia											*	
Trauma management												*

	B1	B2	B3	B4	B5	B6	B7
Basics of Biophysics and Clinical measurements		*		*		*	*
Applied Physiology related to Anesthesia & Intensive care			*				
Applied Pharmacology related to Anesthesia & Intensive Care	*						
Applied Anatomy related to Anesthesia & Intensive Care			*				
Internal medicine						*	
Pharmacological basics for anesthesia & intensive care				*			
Physiological basics for anesthesia & intensive care				*			
Anesthesia	*	*			*	*	*
Intensive Care				*	*	*	*
Pain Management					*	*	*
Radiology in anesthesia					*		
Trauma management				*	*		

	C1	C2	C3	C4	C5	C6	C7	C8	C9
Basics of Biophysics and Clinical measurements									
Applied Physiology related to Anesthesia & Intensive care									
Applied Pharmacology related to Anesthesia & Intensive Care									
Applied Anatomy related to Anesthesia & Intensive Care									
Internal medicine	*								
Pharmacological basics for anesthesia & intensive care									
Physiological basics for anesthesia & intensive care									
Anesthesia	*			*				*	
Intensive Care					*	*	*	*	
Pain Management								*	
Radiology in anesthesia									
Trauma management									

(5) program admission requirements:

●General requirements:

According to the faculty postgraduate by laws Appendix IV.

●Specific requirements (if applicable):

No specific requirements

(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	الدرجة			إجمالي
		تحريري	شفهي	إكلينيكي	
التشريح الفسيولوجيا الفارماكولوجيا	إختبار تحريري (٣ ورقات) مدته ثلاث ساعات + اختبار شفهي	٦٠ + ٦٠ + ٦٠	٤٠ + ٤٠ + ٤٠		
الأمراض الباطنة	إختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار إكلينيكي	١٨٠	٦٠	٦٠	
مبادئ الفيزياء الحيوية وطرق القياسات الإكلينيكية	إختبار تحريري مدته ثلاث ساعات + اختبارات شفهيه	١٨٠	١٢٠		
إجمالي الدرجة					٩٠٠

Second part:

المقرر	الاختبار	الدرجة			إجمالي
		تحريري	شفهي	إكلينيكي	
التخدير والعناية المركزة الجراحية وعلاج الألم وأساسيات الفارماكولوجيا والفسيولوجيا في التخدير والعناية المركزة الجراحية	إختباران تحريريان مدة كل منها ثلاث ساعات (تشتمل الورقة الثانية اختبار **MCQ** (أسئلة متعددة الاختيارات) + إختبار شفهى + إختبار إكلينيكى	١٥٠ + ١٥٠	١٥٠	١٥٠	
إجمالي الدرجة					٦٠٠

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

Evaluator	Tools*
Internal evaluator : Prof. Dr./ AboAlnor Badran Prof. Dr./ Amer Abdallah Atia Prof. Dr./ Olfat Mostafa Esmaeel	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 specifications 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: