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# **M.B.B.CH. PROGRAM AND COURSE SPECIFICATIONS 2017**

University: **Menoufia**

Faculty: **Medicine**

## A- Basic Information :

- + **Program Title:** M.B.B.Ch
- + **Award / degree:** Bachelor of Medicine and General Surgery,  
Faculty of Medicine, Menoufia University
- + **Program Type:** Single
- + **Departments responsible:** 32 departments:

N.	Department	N.	Department
1	Anatomy & Embryology	17	Cardiovascular medicine
2	Histology	18	Tropical medicine
3	Physiology	19	Dermatology & Venerology
4	Biochemistry	20	Clinical Pathology
5	Pathology	21	Radiology
6	Pharmacology	22	Pediatrics
7	Microbiology & Immunology	23	General Surgery
8	Parasitology	24	Urology
9	Ophthalmology	25	Orthopedics
10	E.N.T	26	Cardio-thoracic Surgery
11	Forensic medicine & Toxicology	27	Neuro-surgery
12	Community medicine	28	Plastic Surgery
13	Family medicine	29	Oncology & Radiotherapy

14	Internal medicine	30	Anaesthesia and Intensive Care
15	Psychiatry & Neurology	31	Obstetrics & Gynaecology
16	Chest	32	Physical medicine, rheumatology and rehabilitation

- **Coordinator:** Professor Dr. Ahmed Ragab
- **Internal evaluator:** Prof. Dr. Wafaa Zahran
- **External Evaluator:** Professor Dr. Yaser El-Wazeer
- **Date of most recent approval of program specification by the faculty council:** 8 / 2017

## B- Professional Information:

### 1- Program Aims:

*The program aims to provide graduate physicians who can:*

- Provide primary health care as family physician/general practitioner, with emphasis on disease prevention and health promotion.
- Achieve the clinical and practical standards required to compete in the national labor market.
- Adopt the ethics of medical practice and respect the religious, cultural and humanity values.
- Collaborate with other health care professionals, and appreciate their role.
- Continue self learning and research to cope with the advancement in the medical field.

### 2-Intended Learning Outcomes (ILOs) for program:

#### a- Knowledge and Understanding:

*By the end of the program, the graduate will have acquired the ability to:*

- a.1- Identify the normal structure of different body organs

- a.2-** Discuss the normal functions of different body systems.
- a.3-** Describe the genetic basis of the human body
- a.4-** Explain the biochemical and cytological mechanism involved in maintaining the internal environment of the human body.
- a.5-** Identify the changes in humans with development and growth through different age categories.
- a.6-** Describe the basics of human mind with various disorders of mentality and behavior.
- a.7-** Compare different abnormalities of the body structure in relation to gender and age and their role in disease pathogenesis
- a.8-** Outline different abnormalities of the function of different body systems in relation to gender and age with their impact on the development of various diseases.
- a.9-** Define the risk factors, precipitating factors and etiopathogenesis of common diseases and emergent conditions
- a.10-** Memorize clinical manifestations, differential diagnosis and complications common diseases and emergent conditions.
- a.11-** Clarify the basis of medical treatment for common diseases and emergent conditions
- a.12-** Outline the basis of surgical interventions with preoperative and postoperative care for common diseases and emergent conditions.
- a.13-** Describe the methods for pain control and methods of palliative care for terminal cases .
- a.14-** Recognize the principles of primary health care
- a.15-** Discuss the methods of screening and prevention for common diseases of the community.
- a.16-** Clarify the principles and organization of national health care system
- a.17-** Define the principles of epidemiology and the effect of social and demographic patterns on disease and vulnerability.
- a.18-** Define the incidence and prevalence of common diseases

- a.19- Discuss the methods of spread of communicable diseases and methods of prevention and control.
- a.20- Explain the approaches for providing health services to the community.
- a.21- Recognize the basics of ethics and human rights
- a.22- Define the medicolegal aspects of medical practice.
- a.23- Outline the safety protocols for practical laboratory work and medical practice concerning doctor and patient.
- a.24- Describe the principles of infection control in clinical practice.
- a.25- Outline the principles of clinical audit.

### **b. Intellectual Skills**

**By the end of the program, the graduate will acquire the skills required to:**

- b.1- Integrate basic anatomical, biochemical, histopathological and physiological facts with clinical data.
- b.2- Solve clinical problems with effective reasoning and recognition of problem definition and priority.
- b.3- Interpret and analyze clinical data considering what is missing
- b.4- Apply critical problem solving using personal judgement and available information.
- b.5- Integrate the clinical data obtained from history, clinical examination and investigations to formulate a diagnosis.
- b.6- Formulate an appropriate management plan for common chronic diseases with proper methods of diagnosis and treatment.
- b.7- Construct a management plan for emergency cases and critically ill patients with first priority to patient stabilization.
- b.8- Classify risk factors for disease and injury to help provide different strategies for risk management.
- b.9- Use evidence based medicine to solve clinical problems based on analysis of data retrieved from the literature.
- b.10- Apply the use of consultation, referral and counselling in dealing with uncertain conditions.

- b.11-** Design scientific research through the formulation of targeted research questions with adoption of the principles of critical appraisal.
- b.12-** Apply the precision in the collection, analysis and interpretation of medical data to support the scientific research.

### **c. Practical and Clinical Skills**

**By the end of the program, the graduate will be able to:**

- c.1-** Conduct basic practical - tests essential for future medical practice .
- c.2-** Take and record a comprehensive patient history with appropriate structure and content.
- c.3-** Conduct full clinical examination for patients with acute and chronic diseases with respect to cultural and religious concepts and considering age and gender of the patient.
- c.4-** Conduct a mental and psychological assessment for the patient
- c.5-** Construct a systematic record for patient's data with clear and adequate presentation.
- c.6-** Construct appropriate management strategies both diagnostic and therapeutic for patients with common acute, chronic diseases
- c.7-** Formulate the initial plan of management for stabilization of injured and critically-ill patients.
- c.8-** Formulate drug dosage and safe prescription of different drugs based on patient's criteria and health condition
- c.9-** Provide first aid measures for emergency cases.

**Procedures and technical skills acquired under appropriate supervision during undergraduate and house officer training:** By the end of the program, the graduate will acquire the model-based skills( using manikin and simulators) required to:

- c.10-** Perform venipuncture, and collect blood samples.
- c.11-** Perform cannulation for peripheral veins

- c.12- Practice enteral, parenteral, inhalational and topical methods for drug administration
- c.13- Operate suturing of superficial wounds.
- c.14- Perform cardiopulmonary resuscitation and basic life-support in an effective manner.
- c.15- Administer compulsory vaccines to children according to national health care system.
- c.16- Perform and interpret basic laboratory tests.
- c.17- Perform and interpret ECG findings and their reflection of cardiac diseases.
- c.18- Administer oxygen therapy in various respiratory disorders.
- c.19- Perform and interpret basic respiratory function tests.
- c.20- Administer inhalation therapy using nebulizer.
- c.21- Insert a nasogastric tube
- c.22- Insert bladder catheter.
- c.23- Assist and perform procedure of normal labor.
- c.24- Apply suitable measures for safety and infection control.

#### **d. General and Transferable Skills**

**By the end of the program, the graduate will acquire the skills required to:**

- d.1- Apply the principles of continuous medical education; CME.
- d.2- Use information and communication technology efficiently in reaching biomedical information to remain current with advances in knowledge and practice.
- d.3- Collect, analyze and manipulate data using electronic means.
- d.4- Present information in written, electronic and verbal forms in a clear and structured manner with use of appropriate English language as needed in relation to medicine.
- d.5- Share ideas and engage in arguments in a simple and effective manner with a clear delivery of information.



- d.6-** Work effectively within a multidisciplinary team with collaboration and respect to other team members.
- d.7-** Apply simple statistical methods to analyze various types of data .
- d.8-** Deal with patients and their relatives in a clear and sympathetic manner with adequate counselling, taking into consideration beliefs, values, goals and concerns.
- d.9-** share the patient or his caretaker in decision making regarding management of the patient condition.
- d.10-** Work and share experience with other healthcare professions in patient's management regardless of degree or occupation
- d.11-** Apply the national code of ethics issued by the Egyptian Medical Syndicate.
- d.12-** Recognize when to refer patients to more specialized health facility on facing a defect in knowledge or skills without delay that harms the patient.
- d.13-** Establish a good doctor patient relationship that enables the doctor to break bad news to patients or their relatives and deal with other stressful situations.

**House officers should be able , under appropriate supervision to:**

- Use evidence based medicine to select the appropriate management plan.
- d.14-** Manage time and resources effectively with proper setting of priorities and dealing with shortage and surplus.
  - d.15-** Work effectively with other colleagues and other healthcare professionals as a healthcare team
  - d.16-** - Lead the health team providing education, motivation and supervision to other team members.
  - d.17-** Solve problems related to patients or work environment in a professional and realistic manner.
  - d.18-** Manage problems among other colleagues with respect to personal duties and rights.

- d.19- Cope with a changing work environment at the level of personnel and facilities.
- d.20- Apply safety protocols within the healthcare facilities
- d.21- Use feedback to evaluate the health services and apply corrective measures.
- d.22- Ensure confidentiality and privacy of patients information as an integral part of patients rights.
- d.23- Treat all patients equally regardless of their culture, beliefs, socioeconomic level or their disabilities.
- d.24- Provide cost effective health services for management of different diseases with respect to patient's benefit and socioeconomic level.
- d.25- Report any physical or mental disability among the healthcare team that endangers patients' safety .

### **3- Academic Standards:**

The National Academic Reference Standards (NARS) for medicine approved by the National Authority for Quality Assurance and Accreditation of Education (January 2009) is used as the academic reference standards

The aims and intended learning outcomes of the current program are comparable with the attributes of medical graduate and intended learning outcomes provided by the national academic reference standards (annex 1).

### **4- Curriculum Structure and Contents**

**4.a- Programme duration (years) :** 6 years + Pre-Registration House Officer (PRHO) training year.

**4.b- Programme structure:**

- 1- pre-clinical stage (years 1-3)
- 2- clinical stage (years 4-6)



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## **Pre-clinical stage**

Academic year	No. of study hours		No. of study weeks/year	Total study hours/ year	Total marks /year
	Theoretical (Lectures)	Practical & field training			
<b>Year 1</b>	<b>495</b>	<b>300</b>	<b>30</b>	<b>795</b>	<b>800</b>
<b>Year 2</b>	<b>435</b>	<b>300</b>	<b>30</b>	<b>735</b>	<b>850</b>
<b>Year 3</b>	<b>390</b>	<b>300</b>	<b>30</b>	<b>690</b>	<b>950</b>
<b>Total for pre-clinical stage</b>				<b>2220</b>	<b>2600</b>
<b>Percentage of total pre-clinical / total program</b>				<b>46.35%</b>	<b>40%</b>

## **Clinical stage**

Academic year	No. of study hours		No. of study weeks/year	Total study hours/ year	Total marks /year
	Theoretical (Lectures)	Practical & field training			
<b>Year 4</b>	<b>382</b>	<b>320</b>	<b>32</b>	<b>702</b>	<b>1000</b>
<b>Year 5</b>	<b>354</b>	<b>360</b>	<b>36</b>	<b>714</b>	<b>1450</b>
<b>Year 6</b>	<b>354</b>	<b>360</b>	<b>36</b>	<b>714</b>	<b>1450</b>
<b>Total for clinical stage</b>				<b>2130</b>	<b>3900</b>
<b>Percentage of total pre-clinical / total program</b>				<b>53.65%</b>	<b>60%</b>

The program stage	Study hours	% from Total study hours	Marks	% from Total marks
Pre-clinical	2220	51.03%	2600	40%
Clinical	2130	48.97%	3900	60%
Whole program	4350	100%	6500	100%

### Program composition

The program includes 28 courses :

**24 major courses:** (Anatomy and Embryology I&II - Histology I &II - Physiology and Biophysics I&II - Biochemistry I&II - behavioral and Human Sciences – Pathology – Pharmacology - Microbiology & Immunology – Parasitology – Ophthalmology - E.N.T- Forensic medicine & Toxicology - Community medicine - Family medicine 1,2&3 - Internal medicine – Pediatrics - General Surgery- Obstetrics & Gynecology.

### 4 minor courses:

- Introduction to quality and human rights are Menoufia University requirements by law.
- Computer and English which could be taken at any time of the program.

Type of Courses	Hours	% from total
Basic Sciences (preclinical)	2100	48.28%
Humanity & Social Courses (Behavioral and Human Sciences & Human rights)	45	1.03%
Specialized Courses (clinical)	2130	48.97%
Others (English, Computer & Introduction to quality)	75	1.72%
<b>Total</b>	<b>4350</b>	<b>100%</b>

## Courses contributing to the program:

### Major courses

Code	COURSE	Year	No. of Study hours				Total marks
			Theoretical	Practical		Total	
				Clinical / Lab	Field		
MFM-I 01	Anatomy & Embryology I	1 <sup>st</sup> year	120	120	---	240	250
MFM-I 02	Histology I	1 <sup>st</sup> year	60	60	---	120	150
MFM-I 03	Physiology & Biophysics I	1 <sup>st</sup> year	150	60	---	210	250
MFM-I 04	Biochemistry I	1 <sup>st</sup> year	75	60	---	135	150
MFM-II 01	Anatomy & Embryology II	2 <sup>nd</sup> year	120	120	---	240	250
MFM-II 02	Histology II	2 <sup>nd</sup> year	60	60	---	120	150
MFM-II 03	Physiology & Biophysics II	2 <sup>nd</sup> year	150	60	---	210	250
MFM-II 04	Biochemistry II	2 <sup>nd</sup> year	75	60	---	135	150
MFM-II 05	Behavioral and Human Sciences	2 <sup>nd</sup> year	30	---	---	30	50
MFM- III 01	Pathology	3 <sup>rd</sup> year	120	120	---	240	300
MFM- III 02	Pharmacology	3 <sup>rd</sup> year	120	60	---	180	300
MFM- III 03	Microbiology & Immunology	3 <sup>rd</sup> year	90	60	---	150	200
MFM- III 04	Parasitology	3 <sup>rd</sup> year	60	60	---	120	150
MFM- IV 01	Ophthalmology	4 <sup>th</sup> year	80	80	---	160	250
MFM- IV 02	ENT	4 <sup>th</sup> year	64	40	---	104	200
MFM- IV 03	Forensic medicine & Toxicology	4 <sup>th</sup> year	80	80	---	160	200
MFM- IV 04	Community medicine	4 <sup>th</sup> year	128	60	20	208	300
MFM- IV 05	Family medicine 1	4 <sup>th</sup> year	30	30	10	70	50
MFM-V 01	Internal Medicine and Specialties	5 <sup>th</sup> year	216	220	---	436	900
MFM -V 02	Pediatrics	5 <sup>th</sup> year	108	100	---	208	500
MFM -V 03	Family medicine 2	5 <sup>th</sup> year	30	30	10	70	50
MFM -VI 01	General Surgery and Specialties	6 <sup>th</sup> year	216	220	---	436	900

MFM -VI 02	Obstetrics and Gynecology	6 <sup>th</sup> year	108	100	---	208	500
MFM -VI 03	Family medicine 3	6 <sup>th</sup> year	30	30	10	70	50
<b>Total</b>			<b>2320</b>	<b>1890</b>	<b>50</b>	<b>4260</b>	<b>6500</b>

### Minor courses

Code	COURSE	Year	No. of Study hours				Total marks
			Theoretical	Practical		Total	
				Clinical / Lab	Field		
MU-EN	English	1 <sup>st</sup> year	30	---	---	30	50*
MU-COMP	Computer	1 <sup>st</sup> year	30	---	---	30	50*
MU-HR	Human rights	1 <sup>st</sup> year	15	---	---	15	20*
MU-IQ	Introduction to quality	1 <sup>st</sup> year	15	---	---	15	20*
<b>Total</b>			<b>90</b>	<b>---</b>	<b>---</b>	<b>90</b>	<b>---</b>

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***Detailed description of the courses according to the years:***

***First year:***

Code \No.	Course title	No of hours (Duration of study is 30 weeks )		Total Hours of the course	Assessment tools	Total marks
		Lectures	Practical			
MFM-I 01	Anatomy & Embryology I	120	120	240	<ul style="list-style-type: none"> <li>• 3 hrs written exam including embryology</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	250
MFM-I 02	Histology I	60	60	120	<ul style="list-style-type: none"> <li>• 3 hrs written exam</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	150
MFM-I 03	Physiology & Biophysics I	150 (including 10 hrs for biophysics)	60	210	<ul style="list-style-type: none"> <li>• 3 hrs written exam including biophysics</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	250
MFM-I 04	Biochemistry I	75	60	135	<ul style="list-style-type: none"> <li>• 3 hrs written exam</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	150
MU-EN	English	30	-----	30	1 hr written exam	50 (Not added)
MU-COMP	Computer	30	-----	30	1 hr written exam	50 (Not added)
MU-HR	Human rights	15	-----	15	1 hr written exam	20 (Not added)
MU-IQ	Introduction to Quality	15	-----	15	1 hr written exam	20 (Not added)
<b>Total</b>		<b>495</b>	<b>300</b>	<b>765</b>		<b>800</b>

**Second year:**

Code No.	Course title	No of hours (Duration of study is 30 weeks )		Total Hours of the course	Assessment tools	Total marks
		Lectures	Practical			
MFM-II 01	Anatomy & Embryology II	120	120	240	<ul style="list-style-type: none"> <li>• 3 hrs written exam including embryology</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	250
MFM-II 02	Histology II	60	60	120	<ul style="list-style-type: none"> <li>• 3 hrs written exam</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	150
MFM-II 03	Physiology II	150	60	210	<ul style="list-style-type: none"> <li>• 3 hrs written exam</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	250
MFM-II 04	Biochemistry II	75	60	135	<ul style="list-style-type: none"> <li>• 3 hrs written exam</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	150
MFM-II 05	Human and behavioural sciences	30	-----	30	1 hr written exam	50
<b>Total</b>		<b>435</b>	<b>300</b>	<b>735</b>		<b>850</b>



### **Third year**

Code No.	Course title	No of hours (Duration of study is 30 weeks )		Total Hours of the course	Assessment tools	Total marks
		Lectures	Practical			
MFM- III 01	Pathology	120	120	240	<ul style="list-style-type: none"> <li>• Two written exams, two hrs each</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	300
MFM- III 02	Pharmacology	120	60	180	<ul style="list-style-type: none"> <li>• Two written exams, two hrs each</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	300
MFM- III 03	Microbiology & Immunology	90	60	150	<ul style="list-style-type: none"> <li>• 3 hrs written exam</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	200
MFM- III 04	Parasitology	60	60	120	<ul style="list-style-type: none"> <li>• 2 and half hrs written exam</li> <li>• Practical exam</li> <li>• Oral exam</li> </ul>	150
<b>Total</b>		<b>390</b>	<b>300</b>	<b>690</b>		<b>950</b>

### **Fourth Year**

Code No.	Course title	No of hours (Duration of study is 32 weeks )		Total Hours of the course	Assessment tools	Total marks
		Lectures	Practical			
MFM- IV 01	Ophthalmology	80	80 (8 clinical weeks / 10 hrs per week)	160	<ul style="list-style-type: none"> <li>• Two and half written exam</li> <li>• Clinical exam</li> <li>• Oral exam</li> </ul>	250
MFM- IV 02	E.N.T	64	40 (4 clinical weeks / 10 hrs per week)	104	<ul style="list-style-type: none"> <li>• Two and half written exam</li> <li>• Clinical exam</li> <li>• Oral exam</li> </ul>	200
MFM- IV 03	Forensic medicine & Toxicology	80	80 (8 clinical and practical weeks / 10 hrs per week)	160	<ul style="list-style-type: none"> <li>• 3 hrs written exam</li> <li>• Practical and clinical exams</li> <li>• Oral exam</li> </ul>	200
MFM- IV 04	Community medicine	128	80 (6 practical weeks + 2 weeks field training / 10 hrs per week)	208	<ul style="list-style-type: none"> <li>• 2 and half hrs written exam</li> <li>• Practical and field exams</li> <li>• Oral exam</li> </ul>	300
MFM -IV 05	Family medicine 1	30	40 (3 practical and clinical weeks + 1 week field training / 12.5 hrs per week)	70	<ul style="list-style-type: none"> <li>• 1 hr written exam ( problem solving and MCQs)</li> <li>• Practical and skill exams at skill lab</li> <li>• Oral exam</li> </ul>	50
<b>Total</b>		<b>382</b>	<b>320</b>	<b>702</b>		<b>1000</b>

***Fifth year***

Code No.	Course title	No of hours (Duration of study is 36 weeks )		Total Hours of the course	Assessment tools	Total marks
		Lectures	Practical			
MFM-V 01	Internal medicine and specialities	216	220 (22 clinical weeks / 10 hrs per week)	436	<ul style="list-style-type: none"> <li>• 3 written exams, 3 hrs each ( fo internal medicine and its specialities)</li> <li>• Two hrs written exam for dermatology and clinical pathology</li> <li>• Clinical exams</li> <li>• Oral and practical exams</li> </ul>	900
MFM -V 02	Pediatrics	108	100 (10 clinical weeks / 10 hrs per week)	208	<ul style="list-style-type: none"> <li>• Thee hrs written exam</li> <li>• Two hrs written exam</li> <li>• Clinical exam</li> <li>• Oral exam</li> </ul>	500
MFM -V 03	Family medicine 2	30	40 (3 practical and clinical weeks + 1 week field training / 10 hrs per week))	70	<ul style="list-style-type: none"> <li>• 1 hr written exam ( problem solving and MCQs)</li> <li>• Practical and skill exams at skill lab</li> <li>• Oral exam</li> </ul>	50
<b>Total</b>		<b>354</b>	<b>360</b>	<b>714</b>		<b>1450</b>

### Sixth year

Code No.	Course title	No of hours (Duration of study is 36 weeks )		Total Hours of the course	Assessment tools	Total marks
		Lectures	Practical			
MFM -VI 01	General Surgery	216	220 (22 clinical weeks / 10 hrs per week)	436	<ul style="list-style-type: none"> <li>• 3 written exams, 3 hrs each ( fo general surgery and its specialities)</li> <li>• Clinical exam</li> <li>• Oral exam</li> </ul>	900
MFM -VI 02	Obstetrics & Gynecology	108	100 (10 clinical weeks / 10 hrs per week)	208	<ul style="list-style-type: none"> <li>• Two hrs written exam ( for obstettrics)</li> <li>• Three hrs written exam ( for gynecology and MCQs)</li> <li>• Clinical exam</li> <li>• Oral exam</li> </ul>	500
MFM -VI 03	Family medicine 3	30	40 (3 practical and clinical weeks + 1 week field training / 10 hrs per week))	70	<ul style="list-style-type: none"> <li>• 1 hr written exam ( problem solving and MCQs)</li> <li>• Practical and skill exams at skill lab</li> <li>• Oral exam</li> </ul>	50
<b>Total</b>		<b>354</b>	<b>360</b>	<b>714</b>		<b>1450</b>

<i>Code</i>	<i>Course</i>	<i>Total study hours of the course</i>	<i>% from Total study hours of the prog.</i>	<i>Total marks of the course</i>	<i>% from Total marks of the prog.</i>
MFM-I 01	Anatomy & Embryology I	240	5.63%	250	3.85%
MFM-I 02	Histology I	120	2.82%	150	2.3%
MFM-I 03	Physiology & Biophysics I	210	4.93%	250	3.85%
MFM-I 04	Biochemistry I	135	3.17%	150	2.32%
MFM-II 01	Anatomy & Embryology II	240	5.63%	250	3.85%
MFM-II 02	Histology II	120	2.82%	150	2.32%
MFM-II 03	Physiology & Biophysics II	210	4.93%	250	3.85%
MFM-II 04	Biochemistry II	135	3.17%	150	2.32%
MFM-II 05	Behavioral and Human Sciences	30	0.70%	50	0.76%
MFM- III 01	Pathology	240	5.63%	300	4.6%
MFM- III 02	Pharmacology	180	4.23%	300	4.6%
MFM- III 03	Microbiology & Immunology	150	3.52%	200	3.07%
MFM- III 04	Parasitology	120	2.82%	150	2.32%
MFM- IV 01	Ophthalmology	160	3.76%	250	3.85%
MFM- IV 02	E.N.T	104	2.44%	200	3.07%
MFM- IV 03	Forensic medicine & Toxicology	160	3.76%	200	3.07%
MFM- IV 04	Community medicine	208	4.88%	300	4.6%
MFM- IV 05	Family medicine 1	70	1.64%	50	0.76%
MFM-V 01	Internal medicine	436	10.23%	900	13.86%
MFM -V 02	Pediatrics	208	4.88%	500	7.7%
MFM -V 03	Family medicine 2	70	1.64%	50	0.76%
MFM -VI 01	General Surgery	436	10.23%	900	13.86%
MFM -VI 02	Obstetrics & Gynecology	208	4.88%	500	7.7%
MFM -VI 03	Family medicine 3	70	1.64%	50	0.76%
<b>Total</b>		<b>4260</b>	<b>100%</b>	<b>6500</b>	<b>100%</b>

## **5. Course Specification: Attached**

## **6. Program – Course ILOs Matrix : (annex 2 )**

## **7. Program admission requirements**

Registration to the faculty of medicine requires the student to have the Egyptian general secondary education certificate or equivalent certificates or degrees approved by the Egyptian ministry of higher education with qualifying grades according to the guidelines put annually by the ministry of higher education.

## **8. Regulations for progression and Program completion**

### **1-First year**

Duration: 30 weeks

2 sets of exams: 1<sup>st</sup> in May – 2<sup>nd</sup> in September for student who failed to pass any course

- Midyear exam are set according to internal regulation put by the departments.

- Criteria to progress to the next year are passing exams in at least 2 courses

### **2-Second year**

-Duration: 30 weeks

-2sets of exams: 1<sup>st</sup> in may – 2<sup>nd</sup> in September for student who failed to pass any course

-Mid- year exam are set according to internal regulation put by the departments.

-Criteria to progress to the next year are passing all medical courses

### **3-Third year**

-Duration: 30 weeks

-2sets of exams: 1<sup>st</sup> in May – 2<sup>nd</sup> in September for student who failed to pass any course

-Midyear exam are set according to internal regulation put by the

departments.

-Criteria to progress to the next year are passing all medical courses

#### **4-Fourth year**

duration: 32 weeks

-2sets of exams: 1<sup>st</sup> in June – 2<sup>nd</sup> in September for student who failed to

pass any course

-Midyear exam are set according to internal regulation put by the Departments.

-criteria to progress to the next year are passing all medical courses studied

#### **5-Fifth year**

duration: 36 weeks

-2sets of exams: 1st in July – 2nd in September for student who failed to pass any course

-midyear exam are set according to internal regulation put by the departments.

-criteria to progress to the next year are passing all medical courses studied

#### **6-Sixth year**

duration: 36 weeks

-2sets of exams: 1st in November – 2nd in may/June for student who failed to pass any course

-Mid year exam are set according to internal regulation put by the departments.

-criteria to progress to the next year are passing exams all medical courses studied

## Grading of the program & courses:

Grade	% from total	To % from total	
Excellent	85	More than 85	
Very good	75	Less than 85	
Good	65	Less than 75	
Pass	60	Less than 65	
Failed (weak)	30	Less than 60	
Failed (very weak)	Less than 30	30	Or Less than 30 % in written exam. / or absence without excuse.

## 9. Methods and rules for assessment for attendance of the program:

Method	What to measure of ILOs
1-Written Exam	Knowledge and understanding/ Intellectual skills
2-Practical or Clinical Exam & OSCE	Knowledge and understanding, Professional & Intellectual and General skills
3-Oral Exam	Knowledge and understanding, Intellectual and general skills
4-Continuous assessment	Knowledge and understanding, General and Intellectual skills

## 10. Evaluation of program intended learning outcomes:

Evaluator	Tool	Sample
Students	questionnaire	Attached
Graduates	questionnaire	Attached
External Evaluators	reports	Attached
External Examiners	reports	Attached
Community members	questionnaire	Attached



## Annex 1

### Program Aims –NARS Matrix

National Academic reference standards (Attributes of medical graduate)	Program Aims
1.1. Work to maintain normal health, provide primary health care and deal with common health problems in the society.	1.a
1.2. Be aware of the importance of a good doctor/ patient relationship, and work to establish and maintain it.	1.c
1.3. Follow rules of medical ethics.	1.c
1.4. Demonstrate appropriate communication, clinical and practical skills.	1.b
1.5. Show appropriate attitudes and professionalism.	1.d
1.6. Be prepared for lifelong learning.	1.e
1.7. Be able to engage in post-graduate and research studies.	1.e
1.8. Acquire basic administrative capabilities.	1.b

## Program ILOs –NARS Matrix

National Academic reference standards	Program ILOs
<b>2. Knowledge and understanding</b>	
2.1. Normal Human Body: a. Normal structure and function of the body (as an intact organism) and of each of its major systems. b. Molecular, biochemical, and cellular mechanisms which are important in maintaining the body homeostasis. c. Main developmental changes in humans and the effect of growth, development and aging on the individual and his family. d. Basics of normal and abnormal human behaviors.	1.1, 1.2, 1.3, 1.4, 1.5, 1.6
2.2. Altered structure and function of the body and its major systems that are seen in various diseases and integrate it in clinical conditions.	a.7, a.8
2.3. Etiology, pathogenesis, clinical features, diagnoses and complications of common and life threatening illnesses affecting the body and each of its major organ systems, presenting throughout the age spectrum.	a.9, a.10
2.4. Principles of management of common and life threatening illnesses including: a. Pharmacological and non pharmacological basics of therapy. b. Non invasive and invasive intervention. c. Basic pre- and post operative care. d. Pain relief and palliative care.	a.11, a.12, a.13

<p><b>2.5. Population Health and Health Systems:</b></p> <p>a. The determinants of health, principles of disease prevention and early detection of common community health problems.</p> <p>b. Principle and organization of National Health Care System.</p> <p>c. Epidemiological principles of demography and biological variability.</p> <p>d. Principles of disease surveillance and screening.</p> <p>e. Communicable disease control and health promotion.</p> <p>f. Population-based approaches to health care services and their role in improving medical practice.</p>	<p>a.14, a.15, a.16, a.17, a.18, a.19, a.20</p>
<p><b>2.6. Basics of ethics, medico legal aspects of health problems, malpractice and common medical errors.</b></p>	<p>a.21, a.22</p>
<p><b>2.7. Basics of health and patient's safety and safety procedures during practical and clinical years.</b></p>	<p>a.23, a.24</p>
<p><b>2.8. Principles of clinical audit.</b></p>	<p>a.25</p>
<p><b>3. Practical and Clinical Skills:</b></p> <p>Graduate should acquire the following practical as well as Clinical skills and competencies during the undergraduate years</p>	
<p><b>3.1. Demonstrate basic sciences practical skills relevant to future practice.</b></p>	<p>c.1</p>
<p><b>3.2. Take and record a structured, patient centered history.</b></p>	<p>c.2</p>
<p><b>3.3. Perform full physical examination of patients with acute and chronic clinical conditions appropriate to the age, gender, acute and chronic clinical conditions while being culturally sensitive.</b></p>	<p>c.3</p>



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3.4. Assess the mental state of the patient	c.4
3.5. Record patients ' data appropriately.	c.5
3.6. Formulate a management plan for common diseases and acute emergencies.	c.6, c.7
3.7. Write safe prescriptions of different types of drugs based on patient's weight, age and health condition	c.8
3.8. Provide first aid measures for injured and critically ill patients.	c.9
<b>Procedures and technical skills acquired under appropriate supervision during undergraduate and house officer training:</b>	
3.9. Perform venepuncture and collect blood samples.	c.10
3.10. Insert a cannula into peripheral veins.	c.11
3.11. Give intramuscular, subcutaneous, intradermal and intravenous injections.	c.12
3.12. Perform suturing of superficial wounds.	c.13
3.13. Demonstrate competency in cardiopulmonary resuscitation and basic life-support.	c.14
3.14. Administer compulsory childhood vaccines.	c.15
3.15. Perform and interpret basic bedside laboratory tests.	c.16
3.16. Perform and interpret ECG.	c.17
3.17. Administer basic oxygen therapy.	c.18
3.18. Perform and interpret basic respiratory function tests.	c.19
3.19. Use a nebulizer for administration of inhalation therapy.	c.20

3.20. Insert a nasogastric tube.	c.21
3.21. Perform bladder catheterization.	c.22
3.22. Perform procedure of normal labor.	c.23
3.23. Adopt suitable measures for infection control.	c.24
<b>4. Professional Attitude and Behavioral Skills:</b> Graduates should be able to:	
4.1. Adopt an empathic and holistic approach to the patients and their problems.	d.8
4.2. Respect patients' rights and involve them and /or their caretakers in management decisions.	d.9
4.3. Understand and respect the different cultural beliefs and values in the community they serve.	d.8
4.4. Recognize the important role played by other health care professions in patients' management.	d.10
4.5. Be aware of and understand the national code of ethics issued by the Egyptian Medical Syndicate	d.11
4.6. Counsel patients and families suffering from different conditions.	d.8
4.7. Recognize one's own limitations of knowledge and skills and refer patients to appropriate health facility at the appropriate stage.	d.12
<b>House Officers should be able, under appropriate supervision, to:</b>	
4.8. Ensure confidentiality and privacy of patients' information.	d.24
4.9. Treat all patients equally, and avoid stigmatizing any category regardless of believes, culture, and behaviors.	d.25



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4.10. Demonstrate respect and work cooperatively with other health care professions for effective patient management.	d.10
4.11. Be willing to share in all types of inter-professional activities including collaborative and shared learning	d.10
4.12. Ensure the cost effectiveness of health care management.	d.26
4.13. Notify/report about any physical or mental conditions related to himself, colleagues or any other person that might jeopardize patients safety.	d.27
<b>5. Communication skills:</b>	
5.1. Communicate clearly, sensitively and effectively with patients and their relatives, and colleagues from a variety of health and social care professions.	d.8, d.10
5.2. Communicate effectively with individuals regardless of their social, cultural, ethnic backgrounds, or their disabilities.	d.8, d.25
5.3. Cope with situations where communication is difficult including breaking bad news.	d.13
5.4. Show compassion to the patients and their relatives in situations of stress and grief.	d.13
5.5. Honor and respect patients and their relatives, superiors, colleagues and any other member of the health profession.	d.8, d.10
<b>6. Intellectual Skills:</b>	
6.1. Integrate basic biomedical science with clinical care	b.1

<p>6.2. Reason deductively in solving clinical problems:</p> <p>a. Recognize, define and prioritize problems.</p> <p>b. Interpret, analyze, and evaluate information objectively, recognizing its limitations.</p>	<p>b.2, b.3</p>
<p>6.3. Use personal judgment for analytical and critical problem solving and seek out information.</p>	<p>b.4</p>
<p>6.4. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>b.5</p>
<p>6.5. Construct appropriate management strategies for patients with common diseases, both acute and chronic, including medical, psychiatric, and surgical conditions.</p>	<p>b.6</p>
<p>6.6. Design an initial course of management for stabilization of patients with serious illnesses.</p>	<p>b.7</p>
<p>6.7. Classify factors that place individuals at risk for disease or injury, to determine strategies for appropriate response.</p>	<p>b.8</p>
<p>6.8. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).</p>	<p>b.9</p>
<p>6.9. Recognize and cope with uncertainty that is unavoidable in the practice of medicine by accepting and reacting to uncertain situation through proper counseling, consultation and referral</p>	<p>b.10</p>

6.10. Involvement into research and scientific methods through: a. Formulation of research questions that is pertinent to medicine. b. Recognition of the importance of precision in collecting, analyzing and interpreting medical data.	b.11, b.12
<b>7. General and Transferable Skills:</b>	
7.1. Be prepared for the lifelong learning needs of the medical profession.	d.1
7.2. Use information and communication technology effectively in the field of medical practice.	d.2
7.3. Retrieve, manage, and manipulate information by all means, including electronic means.	d.3
7.4. Present information clearly in written, electronic and oral forms.	d.4
7.5. Communicate ideas and arguments effectively.	d.5
7.6. Work effectively within a team.	d.6
7.7. Analyze and use numerical data including the use of simple statistical methods).	d.7
<b>House Officers should be able to:</b>	
7.8. Use Evidence Based Medicine in management decisions.	b9
7.9. Effectively manage time and resources and set priorities.	d.14
7.10. Work efficiently within the health care team and as an effective team leader.	d.15, d.16
7.11. Solve problems related to patients, work management, and among colleagues.	d.17, d.18
7.12. Cope with a changing work environment.	d.19





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7.13. Apply safety and infection control measures during practice.	d.20
7.14. Evaluate their work and that of others using constructive feedback.	d.21

## Annex 2: Courses Program ILOs matrix

Course code	Course Name	Knowledge and Understanding																								
		a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	a11	a12	a13	a14	a15	a16	a17	a18	a19	a20	a21	a22	a23	a24	a25
MFM-I 01	Anatomy & Embryology I	X				X																				
MFM-I 02	Histology I	X			X																					
MFM-I 03	Physiology & Biophysics I		X		X																					
MFM-I 04	Biochemistry I		X	X	X																					
MFM-I 05	English																									
MU-ICDL	Computer																									
MU-HR	Human rights																					X	X			
MU-IQ	Introduction to quality																									X
MFM-II 01	Anatomy & Embryology II	X				X																				
MFM-II 02	Histology II	X			X																					
MFM-II 03	Physiology & Biophysics II		X		X																					
MFM-II 04	Biochemistry II				X																					
MFM-II 05	Behavioral and Human Sciences						X																			
MFM- III 01	Pathology							X		X																



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<b>MFM- III 02</b>	<b>Pharmacology</b>									X		X													
<b>MFM- III 03</b>	<b>Microbiology &amp; Immunology</b>								X	X													X		
<b>MFM- III 04</b>	<b>Parasitology</b>								X	X															
<b>MFM- IV 01</b>	<b>Ophthalmology</b>							X	X	X	X	X	X												
<b>MFM- IV 02</b>	<b>E.N.T</b>							X	X	X	X	X	X												
<b>MFM- IV 03</b>	<b>Forensic medicine &amp; Toxicology</b>							X	X	X	X	X								X					
<b>MFM- IV 04</b>	<b>Community medicine</b>														X	X	X	X	X	X			X	X	
<b>MFM- IV 05</b>	<b>Family medicine 1</b>														X	X	X	X		X	X	X		X	X
<b>MFM-V 01</b>	<b>Internal medicine</b>						X	X	X	X	X	X		X		X		X							
<b>MFM -V 02</b>	<b>Pediatrics</b>		X		X		X	X	X	X	X				X										
<b>MFM -V 03</b>	<b>Family medicine 2</b>				X					X	X				X	X	X			X					
<b>MFM -VI 01</b>	<b>General Surgery</b>							X	X	X	X	X	X										X		
<b>MFM -VI 02</b>	<b>Obstetrics &amp; Gynecology</b>							X	X	X	X	X	X										X		
<b>MFM -VI 03</b>	<b>Family medicine 3</b>				X					X	X				X	X				X					



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Course code	Course Name	Intellectual skills											
		b1	b2	b3	b4	b5	b6	b7	b8	b9	b10	b11	b12
MFM-I 01	Anatomy & Embryology I	x											
MFM-I 02	Histology I	x											
MFM-I 03	Physiology & Biophysics I	x											
MFM-I 04	Biochemistry I	x											
MFM-I 05	English												
MU-ICDL	Computer												
MU-HR	Human rights												
MU-IQ	Introduction to quality												
MFM-II 01	Anatomy & Embryology II	x											
MFM-II 02	Histology II	x											
MFM-II 03	Physiology & Biophysics II	x											
MFM-II 04	Biochemistry II	x											
MFM-II 05	Behavioral and Human Sciences												
MFM- III 01	Pathology	x		x	x	x							
MFM- III 02	Pharmacology						x						



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<b>MFM- III 03</b>	Microbiology & Immunology			X	X	X				X			
<b>MFM- III 04</b>	Parasitology			X	X	X				X			
<b>MFM- IV 01</b>	Ophthalmology	X	X	X	X	X	X	X	X	X	X		
<b>MFM- IV 02</b>	E.N.T	X	X	X	X	X	X	X	X	X	X		
<b>MFM- IV 03</b>	Forensic medicine & Toxicology	X	X	X	X	X	X	X	X	X	X		
<b>MFM- IV 04</b>	Community medicine											X	X
<b>MFM- IV 05</b>	Family medicine 1		X	X	X	X	X	X	X	X	X	X	
<b>MFM-V 01</b>	Internal medicine	X	X	X	X	X	X	X	X	X	X		
<b>MFM -V 02</b>	Pediatrics	X	X	X	X	X	X	X	X	X	X		
<b>MFM -V 03</b>	Family medicine 2		X	X	X	X	X	X	X	X	X		
<b>MFM -VI 01</b>	General Surgery	X	X	X	X	X	X	X	X	X	X		
<b>MFM -VI 02</b>	Obstetrics & Gynecology	X	X	X	X	X	X	X	X	X	X		
<b>MFM -VI 03</b>	Family medicine 3		X	X	X	X	X	X	X	X	X		



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Course code	Course Name	Practical and Clinical skills																							
		c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c13	c14	c15	c16	c17	c18	c19	c20	c21	c22	c23	c24
MFM-I 01	Anatomy & Embryology I	X																							
MFM-I 02	Histology I	X																							
MFM-I 03	Physiology & Biophysics I	X																							
MFM-I 04	Biochemistry I	X																							
MFM-I 05	English																								
MU-ICDL	Computer																								
MU-HR	Human rights																								
MU-IQ	Introduction to quality																								
MFM-II 01	Anatomy & Embryology II	X																							
MFM-II 02	Histology II	X																							
MFM-II 03	Physiology & Biophysics II	X																							
MFM-II 04	Biochemistry II	X																							
MFM-II 05	Behavioral and Human Sciences				X																				
MFM- III 01	Pathology	X																							
MFM- III 02	Pharmacology	X							X																
MFM- III 03	Microbiology & Immunology	X																							
MFM- III 04	Parasitology	X																							
MFM- IV 01	Ophthalmology	X	X	X		X	X	X	X	X									X						X



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MFM- IV 02	E.N.T	X	X	X		X	X	X	X	X								X								X
MFM- IV 03	Forensic medicine & Toxicology	X	X	X	X	X	X	X	X	X									X							
MFM- IV 04	Community medicine	X																								
MFM- IV 05	Family medicine 1	X	X	X	X	X	X		X	X																
MFM-V 01	Internal medicine	X	X	X	X	X	X	X	X	X	X	X						X	X	X	X					X
MFM -V 02	Pediatrics	X	X	X	X	X	X	X	X	X		X	X			X	X	X	X	X	X					X
MFM -V 03	Family medicine 2	X	X	X	X	X	X		X	X						X	X	X		X	X					
MFM -VI 01	General Surgery	X	X	X		X	X	X	X	X	X	X	X	X				X	X				X	X	X	X
MFM -VI 02	Obstetrics & Gynecology	X	X	X		X	X	X	X	X		X	X					X							X	X
MFM -VI 03	Family medicine 3	X	X	X	X	X	X	X	X	X					X			X								



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Course code	Course Name	General and transferrable skills																								
		d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12	d13	d14	d15	d16	d17	d18	d19	d20	d21	d22	d23	d24	d25
MFM-I 01	Anatomy & Embryology I	X																								
MFM-I 02	Histology I	X																								
MFM-I 03	Physiology & Biophysics I	X																								
MFM-I 04	Biochemistry I	X																								
MFM-I 05	English				X	X																				
MU-ICDL	Computer		X	X																						
MU-HR	Human rights								X				X													
MU-IQ	Introduction to quality																									
MFM-II 01	Anatomy & Embryology II	X																								
MFM-II 02	Histology II	X																								
MFM-II 03	Physiology & Biophysics II	X																								
MFM-II 04	Biochemistry II	X																								
MFM-II 05	Behavioral and Human Sciences						X																			
MFM- III 01	Pathology	X					X																			
MFM- III 02	Pharmacology	X					X																			
MFM- III 03	Microbiology & Immunology	X					X																			
MFM- III 04	Parasitology	X					X																			





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MFM- IV 01	Ophthalmology	X					X		X		X	X		X					X		X	X	X	
MFM- IV 02	E.N.T	X					X		X		X	X		X					X		X	X	X	
MFM- IV 03	Forensic medicine & Toxicology	X					X		X		X	X		X										
MFM- IV 04	Community medicine	X					X	X								X								
MFM- IV 05	Family medicine 1	X					X		X	X	X		X	X						X	X	X		
MFM-V 01	Internal medicine	X					X		X		X		X	X	X	X	X		X		X	X	X	X
MFM -V 02	Pediatrics	X					X		X		X	X		X	X	X	X		X		X	X	X	X
MFM -V 03	Family medicine 2	X					X		X		X	X	X	X				X		X	X	X	X	
MFM -VI 01	General Surgery	X					X		X		X	X		X		X			X		X	X	X	X
MFM -VI 02	Obstetrics & Gynecology	X					X		X		X	X		X		X			X		X	X	X	
MFM -VI 03	Family medicine 3	X					X		X		X	X	X	X				X		X	X	X	X	

**e verify that all of the information required to deliver this program is contained in the above specification and will be implemented. All course specification for this program are in place.**

**Programme coordinator:**

**Name Prof. Dr. Ahmed Ragab**

**Signature.....**

**Date.....**

**Dean: Prof. Dr. Ahmed Gamal**

**Name: .....**

**Signature-----**

**Date.....**

**Head of Quality Assurance Unit:**

**Name :Prof. Dr. Rania Azmy**

**Signature..... .**

**Date.....**



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# Attached Courses

# Anatomy and Embryology I

**University: Menoufia**

**Faculty: Medicine**

## A - Administrative Information

**Course Title** : Anatomy and Embryology I

**Code No:** MFM-I 01

**Department offering the course** : Anatomy and Embryology  
Department

**Program on which the course is given** : M.B.B.Ch Program

**Academic year** : 1<sup>st</sup> Year

**Date of specification:** 2006

**Date of last specification revision :** 2017

**Date of approval by Department and Faculty Council:** August 2017

**Teaching hours:**

**Lecture:** 120 hours

**Practical and Tutorial:** 120 hours

**Total:** 240 hours

## B- Professional Information

### 1 – Overall aims of course:

- a) To provide a basic anatomical knowledge of the normal structure of the human body at the level of regions of the upper limb, thorax, abdomen, pelvis and perineum.
- b) To study the the general principles of embryogenesis and fetal development.

### 2- Intended Learning Outcomes:

#### a- Knowledge and understanding :

- a1. Identify the normal structure of the upper limb,
- a2. Describe the basic anatomical structure of the thorax

- a3. Recognize the basic anatomy of the abdomen
- a4. Describe the basic anatomical structure of the pelvis and perineum.
- a5. Identify the changes in human development from fertilization to 1<sup>st</sup> week, 2<sup>nd</sup> week and 3<sup>rd</sup> week.
- a6. Demonstrate the surface landmarks of the underlying bones, muscles, joints and tendons, and internal structures (main nerves, vessels and viscera).
- a7. Identify the major clinical applications of anatomical facts.
- a8. Illustrate the causes of the congenital anomalies.

**b- Intellectual skills:**

- b1. Integrate basic anatomical data with clinical data.
- b2. Apply the anatomical facts while examining the living subject in order to reach a proper diagnosis.
- b3. Interpret the normal anatomical structures on radiographs (chest x-ray, x ray of shoulder, elbow and ankle joint and abdominopelvic x-ray) , IVP and C.T. scan (chest and abdominopelvic).
- b4. Correlate his knowledge in embryology with clinical findings caused by errors in development.

**c- Professional and practical skills:**

- c1. Identify dissected structures of the upper limb, thorax, abdomen, pelvis and perineum according to the present relations.
- c2. Distinguish consistency of arteries, veins and nerves.
- c3. Read x- rays and draw diagrams showing different structures, organs and their relations.

**d- General and transferable skills:**

- d1. Apply the principles of continuous medical education; CME.
- d2. Use internet and learn searching skills.
- d3. Communicate effectively and respectfully with staff members.
- .
- d5. Manage time efficiently and work in group.

**3. Course content**

Topic			Total hours	Number of hours		
				Total lectures	Practical groups	Tutorials
<b>Topics actually taught</b>						
<b>1- Introduction to human anatomy</b>						
1st week	Orientation, Anatomical position, terms & movements	Bones	24	12	10.5	1.5
2nd week	Joints	Skin, fascia & Muscles				
3rd week	Cardiovascular & lymphatic system	Central nervous system				
<b>2- Anatomy of the upper limb</b>						
4 <sup>th</sup> week	Pectoral region (1)	Pectoral region (2) & Axilla (1)	48	24	21	3
5 <sup>th</sup> week	Axilla (2)	The back				
6 <sup>th</sup> week	Scapular region	The arm				
7 <sup>th</sup> week	Cubital fossa & Forearm (1)	Forearm (2)				
8 <sup>th</sup> week	Retinaculae & Hand (1)	Hand (2)				
9 <sup>th</sup> week	Joints	Nerve injuries				
<b>3- Anatomy of the thorax</b>						
10 <sup>th</sup> week	Thoracic cage & Mechanism of respiration	Thoracic wall Nerves & Vessels	40	20	17.5	2.5
11 <sup>th</sup> week	Pleura & Lung	Mediastinum & Pericardium				
12 <sup>th</sup> week	Heart (1)	Heart (2)				



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13 <sup>th</sup> week	Blood & Nerve Supply of the Heart	Diaphragm				
14 <sup>th</sup> week	Arteries & Veins of mediastinum	Nerves & Tubes of mediastinum				
4- Anatomy of the abdomen						
15 <sup>th</sup> week	Ant. Abd. Wall (1)	Ant. Abd. Wall (2)	48	24	21	3
16 <sup>th</sup> week	Male external genitalia	Peritoneum (1)				
17 <sup>th</sup> week	Peritoneum (2)	Stomach, spleen, Coeliac trunk				
18 <sup>th</sup> week	Liver & biliary system	Duodenum, pancreas & portal vein				
19 <sup>th</sup> week	Small intestine & SMA	Large intestine & IMA				
20 <sup>th</sup> week	Kidney, suprarenal gland Abd. Part of the ureter	Post. Abd. Wall				
5- Anatomy of the pelvis						
21 <sup>th</sup> week	Pelvic floor	Vessels & nerves of the pelvis	40	20	17.7	2.5
22 <sup>th</sup> week	Pelvic part of ureter U.B.	Male urethra & prostate				
23 <sup>th</sup> week	Female internal genital organs	Rectum , anal canal				
24 <sup>th</sup> week	Ischiorectal fossa	Pudendal canal & its contents				
25 <sup>th</sup> week	Superficial Perineal poche	Deep Perineal poche				
6- General embryology						
26 <sup>th</sup> week	Gametogenesis	Fertilization				
27 <sup>th</sup> week	Implantation	Midline structures				
28 <sup>th</sup> week	Formation of embryonic disc	Folding				
29 <sup>th</sup> week	Fetal membranes	Umbilical cord & placenta				
30 <sup>th</sup> week	Twins	Congenital anomalies				

<b>Revision</b>	<b>20</b>	<b>0</b>	<b>20</b>	<b>0</b>
<b>TOTAL</b>	<b>240</b>	<b>120</b>	<b>120</b>	

### Matrix (Topics and ILOS covered)

Lectures/ILOS			K								I				P			T								
			1	2	3	4	5	6	7	8	1	2	3	4	1	2	3	1	2	3	4	5				
1 <sup>st</sup> week	Orientation, Anatomical position, terms & movements	Bones	•					•	•				•			•	•				•					
2 <sup>nd</sup> week	Joints	Skin, fascia & Muscles	•					•	•			•									•			•		
3 <sup>rd</sup> week	Cardiovascular & lymphatic system	Central nervous system	•					•	•		•				•						•	•				
4 <sup>th</sup> week	Pectoral region (1)	Pectoral region (2) & Axilla (1)	•					•	•		•	•	•							•	•	•	•	•		•
5 <sup>th</sup> week	Axilla (2)	The back	•					•	•		•		•				•			•	•	•	•	•		•
6 <sup>th</sup> week	Scapular region	The arm	•				•	•	•		•	•	•	•	•	•	•			•	•	•	•	•	•	•
7 <sup>th</sup> week	Cubital fossa & Forearm (1)	Forearm (2)	•				•	•	•				•	•	•		•			•	•	•	•	•	•	•
8 <sup>th</sup> week	Retinaculae & Hand (1)	Hand (2)	•				•	•	•			•				•	•			•	•			•	•	•
9 <sup>th</sup> week	Joints	Nerve injuries	•				•	•	•		•	•	•			•	•			•	•			•	•	•
10 <sup>th</sup> week	Thoracic cage, Mechanism of respiration	Thoracic wall Nerves & Vessels		•				•	•				•	•		•	•					•	•			•
11 <sup>th</sup> week	Pleura & Lung	Mediastinum & Pericardium		•			•	•	•				•		•	•				•	•					•
12 <sup>th</sup> week	Heart (1)	Heart (2)		•			•	•	•		•			•	•					•	•					•
13 <sup>th</sup> week	Blood & Nerve Supply of the Heart	Diaphragm		•				•	•			•	•	•							•	•	•	•		•
14 <sup>th</sup> week	Arteries & Veins of mediastinum	Nerves & Tubes of mediastinum		•			•	•	•				•								•			•	•	
15 <sup>th</sup>	Ant. Abd. Wall	Ant. Abd.			•			•	•				•	•							•	•	•	•		•





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week	(1)	Wall (2)																							
16 <sup>th</sup> week	Male external genitalia	Peritoneum (1)			•			•	•											•	•	•			
17 <sup>th</sup> week	Peritoneum (2)	Stomach, spleen, Coeliac trunk			•			•	•			•										•	•		
18 <sup>th</sup> week	Liver & biliary system	Duodenum, pancreas & portal vein			•			•	•			•								•					
19 <sup>th</sup> week	Small intestine & SMA	Large intestine & IMA			•			•	•			•								•	•		•		
20 <sup>th</sup> week	Kidney, suprarenal gland Abd. Part of the ureter	Post. Abd. Wall			•			•	•			•	•	•	•								•	•	
21 <sup>th</sup> week	Pelvic floor	Vessels & nerves of the pelvis			•			•	•			•											•		
22 <sup>th</sup> week	Pelvic part of ureter U.B.	Male urethra & prostate			•			•	•			•	•							•	•	•	•	•	
23 <sup>th</sup> week	Female internal genital organs	Rectum , anal canal			•			•	•																
24 <sup>th</sup> week	Ischiorectal fossa	Pudendal canal & its contents			•			•	•			•		•	•					•	•	•			
25 <sup>th</sup> week	Superficial Perineal poche	Deep Perineal poche			•			•	•			•		•										•	
26 <sup>th</sup> week	Gametogenesis	Fertilization						•				•										•			
27 <sup>th</sup> week	Implantation	Midline structures						•				•										•		•	
28 <sup>th</sup> week	Formation of embryonic disc	Folding						•				•										•			
29 <sup>th</sup> week	Fetal membranes	Umbilical cord & placenta						•				•										•		•	
30 <sup>th</sup> week	Twins	Congenital anomalies						•				•										•	•	•	•

## **4 – Teaching and learning methods**

### **1. Lectures for acquisition of knowledge:**

- 1- Two groups: 4 hours / week for each group.
- 2- The lectures are conducted using:
  - a. Audiovisual aids through animations and diagrams
  - b. Interaction with the students through questions
  - c. Self-learning through giving them certain topics to search, collect data and give presentation

### **2. Practical sessions:**

- 1- Practical classes 3.30 hours/week including; dissection, demonstration and museum.
- 2- The students are divided into 8 groups (A- B- C- D-H-N-O-E), each group has 1.30 individual hours (individual section) and 2 hours sharing with another group (grouped section). Each group is subdivided into three subgroups (1, 2, 3)
- 3- The practical teaching is conducted using:
  - Models
  - Skeletons
  - Individual bones
  - Prosected specimens
  - Diagrams
  - Radiographs

### **3. Tutorial classes:**

1 hour/2week for each of the 8 groups in which there is open discussion, case study and self-assignment with the students.

## **5. Student assessment:-**

### **A- Attendance criteria:**

The minimal acceptable attendance is 70% Students who fail to attend that percentage of activities will not be allowed to sit for final written examination.

### **B- Assessment tools:**

	K								I				P			T				
	1	2	3	4	5	6	7	8	1	2	3	4	1	2	3	1	2	3	4	5
<b>Written Examination</b>	•	•	•	•	•	•	•	•		•					•					
<b>Oral Examination</b>	•	•	•	•	•	•	•	•	•	•					•		•	•	•	
<b>Practical examination</b>						•						•	•	•	•	•				
<b>Activity (all over the year- log book)</b>													•	•	•	•	•	•	•	•
<b>Periodical assessment exams</b>	•	•	•	•	•	•	•	•												

### **C- Assessment schedule**

1-Regular assessment exams: Held usually at regular intervals

2-Final examination: at the end of the academic year for all students.

### **D- Weighting of assessments**

Method of Assessment	Marks	Percentage
Written exam.	125	50%
Practical exam.	60	30%
Oral exam.	15	
Activity & attitude	5	
Periodical assessment in	45	20%

log book		
<b>Total</b>	<b>250</b>	<b>10%</b>

### **E: Grading system:**

- The minimum passing score is 150 marks (60%) with 37.5 for written exam
- Passing grades are:

Percentage	Grade
85% or more	Excellent
75% to less than 85%	Very good
65% to less than 75%	Good
60% to less than 65%	Pass
Less than 60%	Fail

### **F: Examination description:**

Exam	Description
Periodic exam	20 minutes "MCQ, complete and essay" exam.
Final written exam	3 hours "Written" exam
Final Practical exam	45 minutes Duration) including Prosected specimens and bones.
Final Oral exam	10-15 minutes (2 committees).

### **6. List of text books and references:-**

- 1- Course notes: Book authorized by department.
- 2- Essential Books:

a) Cunningham's Manual of Practical Anatomy (Oxford Medical Publications) by G. J. Romanes (Editor), 15th Edition.

b) Gray's Anatomy of the Human Body by Carmine Clemente, (30th Edition)

### **7. Facilities required for teaching and learning:**

1. Lecture halls at the faculty
2. Dissecting room including cadavers, bones and plastic models
3. Museum specimens
4. Visual aids.

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

#### **Course coordinator:**

**Name:** Prof. Dr. Mostafa Mahmoud El-Habiby

**Signature**.....**Date**  
.....

#### **Head of Department:**

**Name:** Prof. Dr. Mostafa Mahmoud El-Habiby

**Signature**.....**Date**.....  
.....

# Anatomy & Embryology II

University: Menoufia

Faculty: Medicine

## A-Basic information:-

Course Title : Anatomy and Embryology II

Code No: MFM-II 01

Department offering the course : Anatomy and Embryology  
Department

Program on which the course is given : M.B.B.Ch Program

Academic year : 2<sup>nd</sup> Year

Date of specification : 2006

Date of specification revision : 2017

Date of approval by Departmental and Faculty Council: August 2017

Teaching hours: Lectures: 120 Practical: 120 Total:  
240

## B-Professional information:

### 1. Overall aims of course:

- To provide the student with basic anatomical knowledge of the normal structure of the human body at the level regions of the head and neck, lower limb, brain & spinal cord, and understands the most important relations between the different structures (arteries, veins, nerves, muscles and glands).
- To provide the student with knowledge about the normal and abnormal development of the different systems (CVS, respiratory, GIT, Genitourinary, Nervous, Endocrine, Head and Neck).

### 2. Intended Learning Outcomes (ILOs):

#### a- Knowledge and understanding (K):

By the end of the curriculum our students will be able to:

- a1. Describe** the basic anatomical structure of the head, neck.
- a2. Identify** the basic anatomical structure of the lower limb.
- a3. Describe** the basic anatomy of the brain and spinal cord.
- a4. Recognize** the surface landmarks of the underlying bones, muscles, tendons and internal structures (main nerves, vessels and viscera) of the head, neck, lower limb, brain and spinal cord.
- a5. Enumerate** the different branches of nerves and vessels of the head, neck, lower limb, brain and spinal cord.
- a6. Recall** the actions of the different muscles of the head, neck and lower limb.
- a7. Distinguish** the movements of the TMJ & different joints of the lower limb and the muscles involved in each movement
- a8. Outline** the major clinical applications of anatomical facts.
- a9. Discuss** of the different neuro-anatomical syndromes.
- a10. Explain** the different stages of development of different systems (CVS, respiratory, GIT, Genitourinary, Nervous, Endocrine, Head and Neck) as well as abnormalities in development.

**b- Intellectual skills (I):**

By the end of the curriculum our students are able to:

- b1. Integrate** the anatomical facts while examining the living subject in order to reach a proper diagnosis.
- b2. Relate** the surface markings of different structures determine the position or course of internal structures.
- b3. Assemble** the different internal structures in cadavers and preserved specimens.
- b4. Correlate** the anatomical knowledge with clinical signs seen in cases of nerve injuries and CNS lesions.
- b5. Integrate** his knowledge of neuro-anatomy with those of neuro-physiology and neuro-histology.

**b6. Correlate** his knowledge in embryology with clinical findings caused by errors in development.

**c- Professional and practical skills (p):**

By the end of the curriculum each student will be able to:

**c1. Examine** dissected neck to determine the presented structures according to their relations.

**c2. Identify** sites of skull foramens and landmarks of lower limb bones.

**c3. Read** x- rays to recognize the anatomical landmarks.

**c4. Draw** diagrams showing different structures, organs and their relations.

**c5. Use** an anatomical model for different areas of the brain

**d- General and transferable skills (T):**

**d1. Perform** search on internet.

**d2. Show** self-confidence and presentations skills.

**d3. Communicate** effectively and respectfully with staff members.

**d4. Establish** a concise activity according to standard scientific thinking and integrity.

**d5. Manage** time efficiently and **work** in group.

**3. Course contents:-**

Topic			Total hours	Number of hours		
				Total lectures	Practical	tutorials
<b><u>1.Head and Neck:</u></b>			104	52	45.5	6.5
Weeks	lecture (1)	lecture (2)				
1 <sup>st</sup> week	General features of the skull	Scalp & face				





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2 <sup>nd</sup> week	Posterior triangle	Anterior triangle				
3 <sup>rd</sup> week	Back of the neck & Suboccipital triangle	Dural Folds & Venous sinuses				
4 <sup>th</sup> week	Pituitary gland & Orbit (1)	Orbit (2)				
5 <sup>th</sup> week	Temporal & infratemporal fossa (1)	Temporal & infratemporal fossa (2)				
6 <sup>th</sup> week	Ptergopalatine fossa	Deep fascia And spaces of the neck				
7 <sup>th</sup> week	Submandibular region (1)	Submandibular region (2)				
8 <sup>th</sup> week	Thyroid gland	Arteries of the neck				
9 <sup>th</sup> week	Vines & Lymph nodes of the neck	Nerves of the neck				
10 <sup>th</sup> week	Styloid apparatus & prevertebral region	Mouth & Tongue				
11 <sup>th</sup> week	Palate	Nose & paranasal sinuses				
12 <sup>th</sup> week	Pharynx	Larynx				
13 <sup>th</sup> week	Ear	Joints of head & neck				
<b>2.Neuroanatomy:</b>			48	24	21	3
Weeks	lecture (1)	lecture (2)				
1 <sup>st</sup>	Development of	Brain stem				



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week	CNS	(1)				
2 <sup>nd</sup> week	Brain stem (1)	Cerebellum & 4 <sup>th</sup> ventricle				
3 <sup>rd</sup> week	Blood supply of the brain	Diencephalon & 3 <sup>rd</sup> ventricle				
4 <sup>th</sup> week	Basal ganglion & White matter of the cerebrum	Lateral ventricle & Limbic system				
5 <sup>th</sup> week	Spinal cord	Internal structures of spinal cord				
6 <sup>th</sup> week	Internal structure of medulla oblongata & Pons	Internal structure of Midbrain & Cerebellum				



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<b>3.Lower limb:</b>			48	24	21	3
Weeks	lecture (1)	lecture (2)				
1 <sup>st</sup> week	Front & Medial of the thigh	Femoral triangle & its contents				
2 <sup>nd</sup> week	Back of the thigh	Glutial region & Popliteal fossa				
3 <sup>rd</sup> week	Front & lateral of the leg	Back of the leg				
4 <sup>th</sup> week	Sool of the foot	Hip joint				
5 <sup>th</sup> week	Knee joint	Ankle joint				
6 <sup>th</sup> week	Muscles, tendons, and arches of the foot	Blood and nerve supply of the foot				



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<b>4.Embryology:</b>			20	20	0
Weeks	lecture (1)	lecture (2)			
1 <sup>st</sup> week	Cardiovascular system  (development & anomalies)	Respiratory system  (development & anomalies)			
2 <sup>nd</sup> week	Digestive system  (development & anomalies)	Urogenital system  (development & anomalies)			
3 <sup>rd</sup> week	Nervous system  (development & anomalies)  rain	Endocrine glands  (development & anomalies)			
4 <sup>th</sup> week	Face, neck, nose & palate  (development & anomalies)	Ear & Eye  (development & anomalies)			
5 <sup>th</sup> week	Musculo- skeletal system  (development & anomalies)	Integumentary system  (development & anomalies)			
<b>Revisions</b>			20	0	20
<b>TOTAL</b>			<b>240</b>	<b>120</b>	<b>120</b>

### Matrix (lectures and ILOS covered)

Lectures/ILOs			K										I						P					T				
			1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	1	2	3	4	5	1	2	3	4	5
1 <sup>st</sup> week	General features of the skull	Scalp & face	.			.	.	.	.	.			.	.	.	.	.	.	.	.	.							
2 <sup>nd</sup> week	Posterior triangle	Anterior triangle	.			.	.	.		.			.	.		.			.	.	.				.	.	.	
3 <sup>rd</sup> week	Back of the neck & Suboccipital triangle	Dural Folds & Venous sinuses	.				.		.			.	.		.	.			.	.	.	.						
4 <sup>th</sup> week	Pituitary gland & Orbit (1)	Orbit (2)	.			.	.	.		.			.	.		.	.		.	.	.							
5 <sup>th</sup> week	Temporal & infratemporal fossa (1)	Temporal & infratemporal fossa (2)	.			.	.	.		.			.			.					.	.		.	.	.	.	
6 <sup>th</sup> week	Ptergopalatine fossa	Deep fascia And spaces of the neck	.			.		.				.			.				.	.	.							
7 <sup>th</sup> week	Submandibular region (1)	Submandibular region (2)	.			.	.	.		.			.	.		.	.			.	.	.			.	.	.	
8 <sup>th</sup> week	Thyroid gland	Arteries of the neck	.			.		.				.			.	.	.	.	.	.	.						.	
9 <sup>th</sup> week	Vines & Lymph nodes of the neck	Nerves of the neck	.			.	.	.				.			.						.							
10 <sup>th</sup> week	Styloid apparatus & prevertebral region	Mouth & Tongue	.			.	.	.		.	.	.		.		.		.	.	.	.			.	.	.	.	
11 <sup>th</sup> week	Palate	Nose & paranasal sinuses	.			.		.						.	.						.						.	
12 <sup>th</sup> week	Pharynx	Larynx	.			.		.					.	.				.		.	.						.	
13 <sup>th</sup> week	Ear	Joints of head & neck	.			.			.	.	.		.		.			.		.	.			.	.	.	.	
14 <sup>th</sup> week	Development of CNS	Brain stem (1)			.	.		.					.	.		.			.	.	.						.	
15 <sup>th</sup> week	Brain stem (1)	Cerebellum & 4 <sup>th</sup> ventricle			.	.		.		.			.	.		.			.	.	.			.	.	.	.	





- The minimal acceptable attendance is 75%.
- Students who fail to attend that percentage of activities will not be allowed to sit for final written examination.

**B: Assessment tools:**

Assessment tools/ILOs	K										I						P					T						
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	1	2	3	4	5	1	2	3	4	5		
Written Examination	•	•	•	•	•	•	•	•	•	•	•	•	•		•													
Oral Examination	•	•	•	•	•	•	•	•				•		•	•												•	•
Practical examination					•	•		•	•							•	•	•	•	•	•						•	
Activity (all over the year – log book)																	•	•					•	•	•	•	•	
Periodical assessment exams	•	•	•	•	•	•	•	•	•	•	•	•	•				•	•		•								

**C: Assessment schedule:**

- **Periodical assessment examination:** Held usually through and at the end of each branch (written & practical)
- **Final examination:** at the end of the academic year for all students.\\



**D- Weighing of assessment:**

Method of Assessment	Marks		Percentage
Written exam.	125		50%
Practical exam.	60	75	30%
Oral exam.	15		
Activity ,Attitude	5	50	20%
Periodical assessment	45		
<b>Total</b>	<b>250</b>		<b>100%</b>

**E: Grading system:**

- The minimum passing score is 150 marks (60%).with 37.5 for written exam
- Passing grades are:

Percentage	Grade
85% or more	Excellent
75% to less than 85%	Very good
65% to less than 75%	Good
60% to less than 65%	Pass
Less than 60%	Fail

### **F: Examination description:**

Exam	Description
Periodic exam	<ul style="list-style-type: none"> <li>• <b>Written:</b> 20 minutes "MCQ, complete and essay" exam.</li> <li>• <b>Practical exam:-</b> bone, cadavers, plastic models</li> </ul>
Final written exam	3 hours "Written" exam
Final Practical exam	45 minutes Duration) including Prosected specimens and bones.
Final Oral exam	10-15 minutes (2 committees).

### **6. List of text books and references:-**

- 1- Course notes: Book recommended by department.
- 2- Essential Books:
  - a) Cunningham's Manual of Practical Anatomy (Oxford Medical Publications) by G. J. Romanes (Editor), 15th Edition.
  - b) Gray's Anatomy of the Human Body by Carmine Clemente, (30th Edition)
  - .c) Clinical anatomy (Snell)
  - d) Langman's medical embryology (Sadler)

### **7. Facilities required for teaching and learning:**

1. Lecture halls at the faculty
2. Dissecting room including cadavers, bones, plastic models and plastinated specimens.
3. Museum specimens and x-ray and CT scans.
4. Visual aids.



**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinator:**

**Name:** Prof. Dr. Mostafa Mahmoud El-Habiby

**Signature.....Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Mostafa Mahmoud El-Habiby

**Signature.....Date.....**

.....

# Histology I

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Course title :** Histology I

**Code No:** MFM-I 02

**Department offering the course:** Histology Department

**Programme(s) on which the course is given:** M.B.B.Ch

**Academic year:** first year

**Date of specification :**2006

**Date of last specification revision :** 2017

**Date of approval by Department and Faculty Council:** August 2017

**Teaching hours:**

**Lecture:** 60 hours

**Practical:** 60 hours

**Total:** 120 hours

## B-Professional information

### 1 – Overall aims of course:

- a) To provide students with knowledge concerning the basic histological structure and ultrastructure of the eukaryotic cell with correlation to biological cellular activities, and basis of cytogenetics.
- b) To teach the student the normal histological structure of main types of tissues of human body in addition to cardiovascular and lymphatic systems, and how to identify them under the microscope, with functional and clinical correlation whenever possible.

### 2 – Intended learning outcomes of course (ILOs)

#### a- Knowledge and Understanding:

*By the end of the course, student should be able to:*

- a1. Describe the basic steps in preparing specimens for light and electron microscopy.

- a2. Define the structure and functions of the cytoplasmic components.
- a3. Mention the subunits of each nuclear component and their role in its function.
- a4. Explain the process of cell division and identify the activities that control the transition from each phase of the cell cycle to the other.
- a5. Explain the basis of cytogenetics and chromosomal aberrations.
- a6. Clarify the structural characteristics of the epithelium.
- a7. Identify the basic histological structure of different types of connective tissue.
- a8. Outline the structural characteristics of bone.
- a9. Define the basic histological structure of cartilage.
- a10. Compare between different blood elements and their development.
- a11. Describe the structural characteristics of different types of muscles.
- a12. Outline the basic histological structure of nervous tissue.
- a13. Recognize the basic histological structure of cardiovascular system.
- a14. Identify the structural characteristics of the lymphatic (immune) system.
- a15. Describe the functional capabilities of each tissue type and relate them to the structure.

### **b- Intellectual skills**

*By the end of the course, student would be able to:*

- b1. Correlate the structure with the function of different cells in tissues and organs.
- b2. Interpret the electron microscopic appearance of different cellular and intracellular components in electron photomicrographs
- b3. Interpret the light microscopic appearance of normal cells, tissues and organs.
- b4. Conclude the normal structure of any given histological slide.
- b5. Predict the intracellular or tissue components likely to be involved in a functional deficit.
- b6. Construct structures that could be present in a cell from its function
- b7. Relate the composition of each tissue type to its specific functions.
- b8. Apply principles of basic medical sciences to clinical problems using Evidence-Based Medicine.

**b9.** Predict the activities and properties of living cells based on the observation of fixed specimens.

**b10.** Select appropriate methods to reveal specific microscopic features of cells and tissues

### **c- Professional and practical skills**

*By the end of the course, student should be able to:*

**c1.** Determine the instruments and techniques used to prepare and study histological specimens.

**c2.** Use the light microscope efficiently to obtain information from histological slides

**c3.** Examine the histological glass slides and examine them using the maximum microscopic facilities.

**C4.** Examine different cellular and intracellular components in electron photomicrographs

**C5.** Differentiate between types of cells and tissues in histological slides.

**C6.** Draw and label the structures they have seen in electron photomicrographs and under light microscope during practical classes.

### **d-General and transferable skills**

*By the end of this course, the student is expected to be able to:*

**d1.** Present clearly and effectively a scientific topic in the practical class, a staff meeting or the yearly scientific day.

**d2.** Use the sources of biomedical information available to remain current with advances in knowledge and practice.

**d3.** Communicate actively with his colleagues as well as the employees and staff members.

**d4.** Maintain honesty & integrity in all relations with teachers, colleagues and others with home physician must interact in their professional lives.

**d5.** Recognize the scope and limits of their role as student as well as the necessity to seek and apply collaboration with other workers.

**d6.**

**D6.** Maintain a professional image concerning behavior, dress & speech.

**D7.** Appreciate the importance of lifelong learning.

**D8.** Deal with the instruments and equipments in a responsible manner keeping them intact and clean.

**D9.** Accept the sharing of their colleagues in the resources of practical laboratories.

### 3. Course contents:-

Topic	ILOs to be achieved	Hours for lectures	Hours for practical	Total hours per year
<b>1 -Introduction and microtechniques</b>	a1 c3 d3 d7 d9 d10	<b>6</b>	<b>4</b>	<b>10</b>
<b>2- Cytology and Cytogenetics</b>	a2 a3 a4 a5 b2 b6 c1 c2 c3 c4 c5 c7 d2 d3 d4 d5 d6 d9 d10	<b>12</b>	<b>10</b>	<b>22</b>
<b>3- Epithelium</b>	a6 a15 b3 b7 c2 c3 c4 c7 c8 d1 d2 d4 d5 d6 d7	<b>6</b>	<b>4</b>	<b>10</b>
<b>4- connective tissue</b>	a7 a15 b1 b3 b5 b7 c2 c3 c4 c6 c7 c8 d1 d2 d3 d6 d9	<b>4</b>	<b>4</b>	<b>8</b>
<b>5- Cartilage</b>	a8 a15 b1 b3 b5 b7 c2 c3 c4 c6 c7 c8 d1 d2 d3 d6 d9	<b>4</b>	<b>4</b>	<b>8</b>
<b>6- Bone</b>	a9 a15 b1 b3 b5 b7 c2 c3 c4 c6 c7 c8 d1 d2 d3 d6 d9	<b>4</b>	<b>6</b>	<b>10</b>

<b>7- Blood &amp; haemopoiesis</b>	a10 a15 b1 b7 c1 c2 c3 c6 c7 c9 d1 d2 d3 d7 d9 d10	<b>4</b>	<b>4</b>	<b>8</b>
<b>8- Muscle tissue</b>	a11 a15 b1 b2 b3 b4 b5 b6 b7 c3 c4 c7 c8 d1 d2	<b>4</b>	<b>6</b>	<b>10</b>
<b>9- Nerve tissue</b>	a12 a15 b1 b2 b3 b4 b5 b6 b7 c3 c4 c7 c8 d1 d2	<b>6</b>	<b>8</b>	<b>14</b>
<b>10- Cardiovascular system</b>	a13 b4 c2 c3 c4 c7 d1 d2 d6 d7 d8	<b>4</b>	<b>4</b>	<b>8</b>
<b>11 -Lymphatic (immune) system</b>	a14 b4 c2 c3 c4 c7 d1 d2 d6 d7 d8	<b>6</b>	<b>6</b>	<b>12</b>
<b>Total hours</b>		<b>60</b>	<b>60</b>	<b>120</b>

**Detailed description of the topics:**

**1 : Introduction and Microtechniques:**

- Preparation of tissues for microscopic examination
- Light microscopy (principles& types)
- Magnification and resolution
- Electron microscopy ( Transmission, TEM, and Scanning, SEM,)
- Problems in interpretation of tissue sections
- Radioautography and cell fractionation techniques
- Histochemistry, Cytochemistry and immunocytochemistry

**2 : Cytology and Cyto genetics:**

**\*Cytology:**



- Cell membrane (plasma membrane) and glycocalyx (LM & EM, Molecular structure, Functions, Endocytosis and Exocytosis; Receptors and signaling reception).
- Mitochondria (LM & EM, Membrane enzymes, Elementary particles, Mitochondrial DNA & RNA, Functions)
- Ribosomes (LM & EM, Free and attached, Polysomes, chemical composition, Functions)
- Endoplasmic reticulum (Rough & Smooth , LM & EM, Functions)
- Golgi apparatus (LM & EM, Functions)
- Lysosomes (LM, histochemical reactions & EM, Origin, Types and Fate, Functions)
- Peroxisomes (LM, histochemical reactions, & EM, Origin, Types, Functions)
- Anuulate lamellae, Coated vesicles and endosomes.
- Cytoskeleton (Microfilaments, Intermediate filaments and Microtubules)
- Centrioles, Cilia and Flagella
- Cytoplasmic inclusions (Stored food, pigments )
- Cytosole (Cytomatrix)
- Nucleus of interphase (Nuclear envelope, Chromatin, Nucleolus, Nuclear sap)
- Microvilli, Stereocilia and terminal web
- Cell (intercellular) junctions ( Macular, Zonular & Fascial junctions, Occludens & Adherens Junctions and Gap junction)
- Cell death ( necrosis versus apoptosis )

### \*Cytogenetics :

- The cell cycle (Interphase G1, S & G2 and mitosis)
- Cell division, Mitosis ( Events, Mitotic chromosomes, Mitotic spindle, Phases) & meiosis
- Nucleic acids, DNA & RNA (Chemical composition, Structural differences, nucleotides & genes, codons & anticodons, protein synthesis, transcription, translation, replication & Types of RNA)

- Chromosomal number & sex chromosomes
- Karyotyping & classification of chromosomes
- Structure of chromosomes
- Sex chromatin
- Abnormalities of cell division
- Causes of chromosomal aberrations
- Aberrations in chromosomal number e.g. Mongolism
- Aberrations in chromosomal structure
- Aberrations of sex chromosomes e.g. Turner & Klinefelter syndromes

### **3 : Epithelium:**

- General characteristics of epithelium & its types
- Types of simple epithelium (structure & sites)
- Transitional epithelium
- Structure & sites of stratified squamous & stratified columnar epithelium
- Glandular epithelium with reference to sites
- Neuro- and myo-epithelium with reference to sites
- General functions of epithelium
- Modifications of epithelial cells surfaces: Apical, basal & lateral modifications
- Basement membrane

### **4: Connective Tissue:**

- General characteristics
- Cells of C.T. proper (LM, EM & functions)
- Fibers of C.T.
- Ground substance
- Types of C.T. proper with reference to sites
- General functions of C.T. proper
- Adipose Tissue

### **5: Cartilage:**

- Types of cartilage
- Histology of each type
- Sites of each type
- General functions

### **6 : Bone:**

- Types of bone with reference to sites
- Methods of preparation of bone sections
- Bone cells & their functions
- Intercellular substance (components & chemical composition)
- Histology of compact bone
- Histology of spongy bone
- Differences between cartilage & bone
- Ossification (intramembranous & intracartilagenous)

### **7 : Blood & Hemopoiesis:**

- Components of Blood
- Staining of blood cells
- Normal structure, size & number of erythrocytes , ultrastructure & functions
- Abnormalities in structure, size & number of RBCs
- Polycythaemia & anaemia and their causes
- Types of WBCs & normal percentage of each
- Total RBCs count
- Total leucocytic count & its clinical importance
- Differential leucocytic count & its importance
- Structure (LM & EM) & function of WBCs
- Structure (LM & EM) & function of platelets
- Types & structure of bone marrow
- Erythropoiesis
- Granulopoiesis
- Development of lymphocytes

- Development of monocytes
- Development of platelets
- Blood groups

### **8 : Muscular Tissue:**

- General histological characteristics and types of muscle tissue
- Skeletal muscle fibers (LM , EM) & molecular structure
- Types of skeletal muscle fibers
- Mechanism of muscle contraction
- Smooth muscle fibers (LM & EM)
- Cardiac muscle fibers (LM & EM)
- Conducting system of heart

### **9 : Nervous Tissue:**

- Types (classification) of neurons & examples
- EM of nerve cell body (Perikaryon) Dendrites & axons
- Types of nerve fibers with examples
- Histology of peripheral nerve fibers
- Structure of nerve trunk
- Spinal & autonomic ganglia
- Synapse
- Degeneration & Regeneration of nerve fibers
- Neuroglia (Definition, Classification & Sites )
- Structure & function of proper neuroglia cells
- Receptors & its types:
  - somatic and visceral receptors ( mechanoreceptors , thermoreceptors and pain )
  - proprioceptors ( muscle and tendon spindles)
  - chemoreceptors ( taste buds and olfactory mucosa)

### **10 : Vascular System:**

- General structure of blood vessels & its significance
- Large, medium sized & small arteries

- Small, medium sized & large veins
- Types, sites & structure of Arteriovenous connections

### **11 : Lymphatic (Immune) System:**

- Cells involved in the immune system & their functions
- Antigen presenting cells
- Primary & secondary immune response
- Cellular & Humeral immunity
- Lymph vessels & distribution of lymphoid tissue
- Structure of Lymph node & its immunological function
- Structure of Spleen & its function
- Differences between lymph node & spleen
- Blood supply of spleen & theories of circulation
- Structure of Tonsils
- Structure & functions of thymus
- Thymic barrier

### **4– Teaching and learning methods**

#### **1. Lectures:**

The students are divided into 2 main groups, each is given one Lecture/ week for 30 ws ( 2 h / lecture / week for 30 weeks = 60 hours / academic year )

The lectures are given in 2 lecture halls, one for each group of students.

#### **2. Practical sections:**

The students are divided into 4 main groups, each of them is given the practical class for 2 hours once weekly. In the class, each main group is further subdivided into 2 subgroups & each subgroup is subdivided into 3-4 small groups. The practical classes are 2 hours / week for 30 weeks (=60 hours / academic year )

Two large laboratories are available equipped with light microscopes, microscopic slides, microscopes provided with screens & audiovisual aids.

<b>Time plan</b>			
<b>TEACHING METHODS</b>	<b>Time schedule</b>	<b>Teaching hours /week</b>	<b>Total hours</b>
<b>Lecture</b>	<b>Once weekly</b>	<b>Two hours</b>	<b>60</b>
<b>Practical</b>	<b>Once weekly</b>	<b>Two hours</b>	<b>60</b>
<b>Total</b>			<b>120</b>

## **5- Student Assessment:**

### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### **B. Assessment Tools:**

<b>TOOL</b>		<b>PURPOSE</b>
<b>Written examination</b>		<b>Assessment of knowledge, understanding und intellectual skills (a1-a9 &amp; b1-b7)</b>
<b>Practical examination (OSPE)</b>		<b>Assessment of knowledge, understanding and practical skills in diagnosis of different tissues under the microscope. (c1-c9)</b>
<b>Structured examination</b>	<b>Oral</b>	<b>Assessment of knowledge, understanding , intellectual skills, attitude &amp; general skills. (a1-a9 , b1-b7d1-d10)</b>
<b>Practical log book &amp; laboratory manual</b>		<b>Asses Assessment of attendance and evaluation of understanding &amp; drawing skills of histological sections (c1-c9,d1-d10)</b>
<b>Periodical examination</b>	<b>MCQs</b>	<b>Assessment of knowledge , understanding and &amp; Intellectual skills practical skills (a1-a9 &amp; b1-b7)</b>

	<b>Drawing</b>	<b>Assessment of practical skills (c1-c9)</b>
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### **C- Assessment schedule:**

**Periodical exams** at the end of each system in the form of OSPE exam, drawing exam or MCQ exam & **final exams**.

Assessment 1 : <b>Introduction and microtechniques</b>	at 3 <sup>rd</sup> week
Assessment 2 : - <b>Cytology and Cytogenetics</b>	at 9 <sup>th</sup> week
Assessment 3 : - <b>Epithelium</b>	at 11 <sup>th</sup> week
Assessment 4 : - <b>connective tissue</b>	at 13 <sup>th</sup> week
Assessment 5: <b>Mid-year written exam :</b>	at 14 <sup>th</sup> week
Assessment 6 : <b>Cartilage</b>	at 15 <sup>nd</sup> week
Assessment 7 : - <b>Bone</b>	at 17 <sup>th</sup> week
Assessment 8 : - <b>Blood &amp; haemopoiesis</b>	at 20 <sup>th</sup> week
Assessment 9 : <b>Muscle tissue</b>	at 22 <sup>th</sup> week
Assessment 10 : <b>Nerve tissue</b>	at 25 <sup>nd</sup> week
Assessment 11 : <b>Cardiovascular system</b>	at 27 <sup>th</sup> week
Assessment 12 : <b>Lymphatic (immune) system</b>	at 29 <sup>th</sup> week
Assessment 13 : <b>final practical exam once</b> academic year (April).	at the end of
Assessment 14 : <b>final oral exam once</b> academic year (May).	at the end of
Assessment 15 : <b>final written exam once</b> academic year (May).	at the end of

### **D- Weighting of assessments**



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EXAMINATION	MARKS ALLOCATED
Periodical examination & manual Mid Year Laboratory	30
Final examination:	
Written	75 marks (50%)
Practical	35 marks (23.33%)
Oral	10 marks (6.67%)
Total	150

### **E: Grading system:**

The minimum passing score is 90 marks provided that at least 22.5 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **F. Final Examination Description:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Three hours written paper	75
Final Practical examination	<ul style="list-style-type: none"> <li>• Identification of histological slides and photographs</li> <li>• identification points for slides &amp; photographs</li> <li>• Drawing of sections</li> </ul>	35
Oral Final examination	One session ( 2 examiners)	10



## **6. List of references**

### **1- Course notes**

- \*Lectures notes prepared in the form of a book authorized by the department
- \*Laboratory manual authorized by the department
- \* Colored atlas authorized by the department
- \* E-learning moodle course prepared by the department with the aid of E-learning centre – Menoufiya University

### **2- Essential books (text books)**

- b- Basic histology: Junqueira. L.C.
- c- Atlas of histology: Di Fiore
- d- Functional Histology (Wheater's) Text & Atlas of Histology

### **3- Recommended books**

- Fawcett(1994): A Text Book of Histology
- Lesson and Lesson (1980): A Text Book of Histology

### **4- Periodicals, Web sites, etc**

[www.google.com](http://www.google.com)

[www.yahoo.com](http://www.yahoo.com)

[www.pubmed.com](http://www.pubmed.com)

[www.histology world.com](http://www.histology world.com)

[www.Microscopic histology.com](http://www.Microscopic histology.com)

[www.Virtual histology .com](http://www.Virtual histology .com)

## **7- Facilities required for teaching and learning:**

1-Faculty Lecture halls

2-Two equipped labs with

- Light microscopes



- Microscopic stained practical slides in the laboratory.
- Chemicals essential for preparation of histological slides in the research lab.
- microscopes with screens

3-Faculty library for textbooks & electronic library for web search.

4-Audiovisual aids as boards, data show, computers and over head projectors

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinator:**

**Name:** Prof. Dr. Maha El\_Sayed Soliman

**Signature.....Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Maha El\_Sayed Soliman

**Signature.....Date.....**

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# Histology II

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title: Histology II**

**Code No: MFM-II 02**

**Department offering the course: Histology Department**

**Programme(s) on which the course is given: M.B.B.Ch**

**Academic year: second year**

**Date of specification: 2006**

**Date of last specification revision: 2017**

**Date of approval by Department and Faculty Council: August 2017**

**Teaching hours:**

**Lectures: 60 hours    Practical: 60 hours    Total: 120 hours**

## B-Professional information

### 1 – Overall aims of course:

- a) To enable students to know the histological structure of various organs and systems of the body.
- b) To correlate between the structure and function with relevant clinical notes whenever possible.

### 2 – Intended learning outcomes of course (ILOs)

#### a- Knowledge and Understanding:

*By the end of the course, student should be able to:*

- a1. Describe the normal histological structure of respiratory system.
- a2, Recognize the normal histological structure of digestive system.
- a3. Identify the normal histological structure of, endocrine system.
- a4. Describe the normal histological structure of urinary system

- a5. **Recognize** the normal histological structure of, integumentary (skin & its appendages) system
- a6. Identify the normal histological structure of, male & female reproductive.
- a7. **Describe** the normal histological structure of eye , ear, and central nervous system.
- a8. Distinguish structural features of organs, regions and cell types present in each system and relate the structural variations to differences in organ function.
- a9. Relate between the ultrastructure and function of different cell types in different organs of the body.
- a10. Correlate between the blood supply of some organs and their structure and specialized functions.
- a11. Discuss the relation between the endocrine system and the structural and functional variations in some other systems, especially male and female reproductive system.
- a12. Discuss integrated knowledge regarding histological structure, gross anatomy and physiology, especially of the central nervous system.

### **b- Intellectual skills**

*By the end of the course, student would be able to:*

- b1. Interpret differences between different organs in histological slides seen under the microscope.
- b2. Evaluate the structural features and different tissue elements of each organ under the microscope.
- b3. Interpret the light microscopic appearance of normal cells, tissues and organs.
- b4. Expect the normal structure of any given histological slide.
- b5. Predict the intracellular or tissue components likely to be involved in a functional deficit.
- b6. Construct structures that could be present in a cell from its function

- b7.** Relate the composition of each organ histological structure to its specific functions.
- b8.** Apply principles of basic medical sciences to clinical problems using Evidence-Based Medicine.
- b9.** Evaluate the activities and properties of living cells based on the observation of fixed specimens.

### **c- Professional and practical skills**

*By the end of the course, student should be able to:*

- c1.** Use and adjust the light microscope efficiently to obtain information from histological slides
- c2.** Examine the histological glass slides and examine them using the maximum microscopic facilities.
- c3.** Differentiate between types of tissues and organs in histological slides.
- c4.** Draw and label the structures they have seen under light microscope during practical classes..

### **d- General and transferable skills**

*By the end of this course, the student is expected to be able to:*

- d1.** Present clearly and effectively a scientific topic in the practical class, a staff meeting or the yearly scientific day.
- d2.** Use the sources of biomedical information available to remain current with advances in knowledge and practice.
- d3.** Communicate actively with his colleagues as well as the employees and staff members.
- d4.** Maintain honesty & integrity in all relations with teachers, colleagues and others with home physician must interact in their professional lives.
- d5.** Recognize the scope and limits of their role as student as well as the necessity to seek and apply collaboration with other workers.
- d6.** Maintain a professional image concerning behavior, dress & speech.

**D7.** Appreciate the importance of lifelong learning.

**D8** Deal with the instruments and equipments in a responsible manner keeping them intact and clean.

**d9.** Accept the sharing of their colleagues in the resources of practical laboratories.

### 3. Course contents

Topic	ILOs to be achieved	Hours for lectures	Hours for practical	Total hours per year
1) RESPIRATORY SYSTEM	a1 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	4	4	8
2) DIGESTIVE SYSTEM	a2 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	12	14	26
3) URINARY SYSTEM	a3 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	6	4	10
4) ENDOCRINE SYSTEM	a4 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	6	6	12
5) MALE GENITAL SYSTEM	a6 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	6	6	12
6) FEMALE GENITAL SYSTEM	a6 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	6	6	12
7) INTEGUMENTARY SYSTEM	a5 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	4	4	8
8) EYE	a7 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	4	4	8

9) EAR	a7 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	4	4	8
10) CENTRAL NERVOUS SYSTEM	a7 a8 a9 a10 a11 a12 b1 b2 b3 b4 b5 b7 b8 b9 c1 c2 c3 c4 d1 d2 d3 d4 d5 d9 d10	8	8	16
Total hours		120	60	60

**Detailed description of the topics:**

**1) RESPIRATORY SYSTEM**

- Nasal cavity
- Nasopharynx & larynx
- Trachea & respiratory epithelium
- Lung & blood-air barrier
- Alveolar macrophages
- Fetal lung

**2) DIGESTIVE SYSTEM**

**ORAL CAVITY**

- Lip
- Tongue & taste buds
- Teeth & gingiva
- Palate and Pharynx

**ALIMENTARY TRACT**

- General structure of GIT
- Oesophagus
- Stomach & gastro-oesophageal junction
- Small intestine & pyloro-duodenal junction
- Large intestine, appendix & Anal canal

**DIGESTIVE GLANDS**

- Salivary glands
- Pancreas
- Liver & gall bladder

### **3) URINARY SYSTEM**

- Kidney & blood supply of urineferous tubule
- Blood renal barrier
- Juxta-glomerular complex
- Ureter, Urinary bladder & Urethra

### **4) ENDOCRINE SYSTEM**

- Distribution of endocrine glands
- Pituitary gland
- Neurosecretory cells of hypothalamus
- Suprarenal gland
- Thyroid gland
- Parathyroid gland
- Pineal body
- General characteristics of diffuse neuro-endocrine cells, distribution & function

### **5) MALE GENITAL SYSTEM**

- Testis & blood-testis barrier
- Spermatogenesis & spermiogenesis
- Ultrastructure of sperm
- Vasa efferentia. Epididymis, Vas deferens & spermatic cord
- Seminal vesicles, prostate & penis
- Semen & sperm count

### **6) FEMALE GENITAL SYSTEM**

- e- Ovary
- f- Fallopian tube
- g- Uterus & menstrual cycle



h- Placenta

i- Vagina & mammary gland

## **7) INTEGUMENTARY SYSTEM**

- Types & distribution of skin
- Histology of thick skin
- Histology of thin skin
- Colour of skin & melanocytes
- Hair , hair follicles & nails
- Skin glands (sweat & sebaceous glands)

## **8) EYE**

- Histology of the different components of the eye ball & eye lid

## **9) EAR**

- Histology of the ear

## **10) CENTRAL NERVOUS SYSTEM**

- Spinal cord & tractology
- Medulla oblongata
- Pons
- Mid-brain
- Cerebellum & cerebellar peduncle
- Cerebrum
- Pathways, lemnisci & MLB
- Deep origin of cranial nerves
- Meninges
- Brain barriers

## **4– Teaching and learning methods**

### **1- Lectures:**

The students are divided into 2 main groups, each is given one Lecture/ week for 30 ws ( 2 h / lecture / week for 30 weeks = 60 hours / academic year )



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The lectures are given in 2 lecture halls, one for each group of students.

## 2- Practical sections:

The students are divided into 4 main groups, each of them is given the practical class for 2 hours once weekly. In the class, each main group is further subdivided into 2 subgroups & each subgroup is subdivided into 3-4 small groups. The practical classes are 2 hours / week for 30 weeks (=60 hours / academic year )

Two large laboratories are available equipped with light microscopes, microscopic slides, microscopes provided with screens & audiovisual aids.

<b>Time plan</b>			
<b>TEACHING METHODS</b>	<b>Time schedule</b>	<b>Teaching hours /week</b>	<b>Total hours</b>
<b>Lecture</b>	<b>Once weekly</b>	<b>Two hours</b>	<b>60</b>
<b>Practical</b>	<b>Once weekly</b>	<b>Two hours</b>	<b>60</b>
<b>Total</b>			<b>120</b>

## **5- Student Assessment:**

### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding und intellectual skills (a1-a6 &amp; b1-b9)</b>
<b>Practical examination</b>	<b>Assessment of knowledge, understanding</b>

<b>(OSPE)</b>		<b>and practical skills in diagnosis of different tissues under the microscope. (c1-c4)</b>
<b>Structured examination</b>	<b>Oral</b>	<b>Assessment of knowledge, understanding, intellectual skills, attitude &amp; general skills. (a1-a6 , b1-b9, ,d1-d10)</b>
<b>Practical log book &amp; laboratory manual</b>		<b>Asses Assessment of attendance and evaluation of understanding &amp; drawing skills of histological sections (c1-c4,d1-d10)</b>
<b>Periodical examination</b>	<b>MCQs</b>	<b>Assessment of knowledge , understanding and &amp; Intellectual skills practical skills (a1-a6 &amp; b1-b9)</b>
	<b>Drawing</b>	<b>Assessment of practical skills (c1-c4)</b>

### C- Assessment schedule:

**Periodical exams at the end of each system in the form of OSPE exam, drawing exam or MCQ exam & final exams.**

<b>Assessment 1 : RESPIRATORY SYSTEM</b>	<b>at 3<sup>rd</sup> week</b>
<b>Assessment 2 : DIGESTIVE SYSTEM</b>	<b>at 7<sup>th</sup> &amp; 10<sup>th</sup> week</b>
<b>Assessment 3 : URINARY SYSTEM</b>	<b>at 12<sup>th</sup> week</b>
<b>Assessment 4 : ENDOCRINE SYSTEM</b>	<b>at 14<sup>th</sup> week</b>
<b>Assessment 5: Mid-year written exam</b>	<b>at 15<sup>th</sup> week</b>
<b>Assessment 6 : MALE GENITAL SYSTEM</b>	<b>at 17<sup>nd</sup> week</b>
<b>Assessment 7 : FEMALE GENITAL SYSTEM</b>	<b>at 20<sup>th</sup> week</b>
<b>Assessment 8 : INTEGUMENTARY SYSTEM</b>	<b>at 22<sup>th</sup> week</b>
<b>Assessment 9 : EYE</b>	<b>at 24<sup>th</sup> week</b>
<b>Assessment 10 : EAR</b>	<b>at 26<sup>nd</sup> week</b>

Assessment 11 : **CENTRAL NERVOUS SYSTEM** at 29<sup>th</sup> week

Assessment 13 : **final practical exam once** at the end of  
academic year (April).

Assessment 14 : **final oral exam once** at the end of  
academic year (May).

Assessment 15 : **final written exam once** at the end of  
academic year (May).

#### **D- Weighting of assessments**

EXAMINATION	MARKS ALLOCATED
Periodical examination & manual Mid Year Laboratory	30 marks (20%)
Final examination:	
Written	75 marks (50%)
Practical	35 marks (23.33%)
Oral	10 marks (6.67%)
Total	150 marks

#### **E- Grading system:**

The minimum passing score is 90 marks provided that at least 22.5 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

#### **F- FINAL EXAMINATION DESCRIPTION:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Three hours written paper	75

Final Practical examination	<ul style="list-style-type: none"> <li>• Identification of histological slides and photographs</li> <li>• identification points for slides &amp; photographs</li> <li>• Drawing of sections</li> </ul>	35
Oral Final examination	One session ( 2 examiners)	10

## **6- List of references**

### **1- Course notes**

- Lectures notes prepared in the form of a book authorized by the department
- Laboratory manual authorized by the department
- Colored atlas authorized by the department
- E-learning moodle course prepared by the department with the aid of E-learning centre – Menoufiya University

### **2- Essential books (text books)**

- Basic histology: Junqueira. L.C.
- Atlas of histology: Di Fiore
- Functional Histology (Wheater's) Text & Atlas of Histology

### **3- Recommended books**

- Fawcett(1994): A Text Book of Histology
- Lesson and Lesson (1980): A Text Book of Histology

### **4- Periodicals, Web sites, etc**

[www.google.com](http://www.google.com)

[www.yahoo.com](http://www.yahoo.com)

[www.pubmed.com](http://www.pubmed.com)



www.histology world.com

www.Microscopic histology.com

www.Virtual histology .com

**7- Facilities required for teaching and learning:**

1-Faculty Lecture halls

2-Two equipped labs with

- Light microscopes
- Microscopic stained practical slides in the laboratory.
- Chemicals essential for preparation of histological slides in the research lab.
- microscopes with screens

3-Faculty library for textbooks & electronic library for web search.

4-Audiovisual aids as boards, data show, computers and over head projectors

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinator:**

**Name:** Prof. Dr. Maha El\_Sayed Soliman

**Signature**.....**Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Maha El\_Sayed Soliman

**Signature**.....**Date**.....

.....

# Medical Physiology and Biophysics I

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Course title :** Medical physiology and biophysics I

**Code No:** MFM-I 03

**Department offering the course:** Department of clinical physiology

**Programme(s) on which the course is given:** M.B.B.Ch

**Academic year:** first year

**Date of specification :** 2006

**Date of last specification revision :** 2017

**Date of approval by Department and Faculty Council :** August 2017

**Teaching hours:**

**Lecture:** 150 hours

**Practical:** 60 hours

**Total:** 210 hours

## B-Professional information

### **1 – Overall aims of course:**

*By the end of the course, students should be able to:*

- a) Acquire an appropriate functional background of cells, tissues, organs & systems.
- b) Integrate physiological data & mechanisms with the ongoing basic sciences: Anatomy, Histology & Biochemistry and Clinical application.
- c) Follow the rapidly changing & inflating details about molecular biology & genetics .

### **2 – Intended learning outcomes of course (ILOs)**

#### **a. knowledge & understanding:**

*By the end of the course, students should be able to:*

- a1.** Explain the general concepts of homeostasis and the principles of positive and negative feedback in physiological systems and name the different fluid compartments in the body.
- a2.** Describe the composition of a cell membrane and explain how the distribution of phospholipids and proteins influences the membrane permeability of ions, hydrophilic and hydrophobic compounds and know the different parts of the cells and the functions of each.
- a3.** Define the following terms based on the source of energy driving the process and the molecular pathway for: diffusion, facilitated diffusion, secondary active transport, and primary active transport.
- a4.** Classify the nervous system into divisions and compare this classification to the anatomic classification into sympathetic and parasympathetic divisions.
- a5.** Outline the functions of the autonomic nervous system.
- a6.** Describe ionic basis of resting membrane potential and action potential.
- a7.** Define the chemical and mechanical steps in the cross-bridge cycle, and explain how the cross-bridge cycle results in shortening of the muscle.
- a9.** Recognize the relationship of preload, afterload and total load in the time course of an isotonic contraction.
- a10.** Describe the distinguishing characteristics of multi-unit and unitary smooth muscles.
- a11.** Describe a typical action potential in a ventricular muscle and a pacemaker cell with how ionic currents contribute to the four phases of the cardiac action potential and recognizing differences in shapes of the action potentials of different cardiac cells.
- a12.** Describe the ion channels that contribute to each phase of the cardiac action potential and the influence of differences in channel population on the shape of the action potential in the nodal, atrial muscle, ventricular muscle, and Purkinje fiber cardiac cells
- a13.** Recognize the normal sequence of cardiac activation (depolarization) and the role played by specialized cells with the



consequence of a failure to conduct the impulse through any of these areas.

- a14.** Describe, in correct temporal relationship, the pressure, volume, heart sound, and ECG changes in the cardiac cycle, identifying the intervals of isovolumic contraction, rapid ejection, reduced ejection, isovolumic relaxation, rapid ventricle filling, reduced ventricular filling and atrial contraction.
- a15.** Identify the various phases of ventricular systole and ventricular diastole. with the relationship between pressure and flow into and out of the left and right ventricles during each phase of the cardiac cycle.
- a16.** Name the parts of a typical bipolar (Lead II) ECG tracing and explain the relationship between each of the waves, intervals, and segments in relation to the electrical state of the heart.
- a17.** Define venous return with the concept of “resistance to venous return” and factors that determine its value theoretically with most important factors in practice and understanding how various interventions would change the resistance to venous return.
- a18.** Describe the components of blood (cells, ions, proteins, platelets) giving their normal values with the relation between the three red blood cell concentration estimates, red blood cell count, hematocrit, and hemoglobin concentration.
- a19.** Explain how red blood cell surface antigens account for typing of blood by the A B O system and rhesus factor with blood type of a “universal donor” and a “universal recipient.”
- a20.** Explain the role of the platelet release reaction on clot formation. Distinguish between a thrombus and an embolus.
- a21.** Describe how pleural pressure, alveolar pressure, airflow, and lung volume change during a normal quiet breathing cycle, and recognizing the onset of inspiration, cessation of inspiration, and cessation of expiration with differences in pressure between the atmosphere and alveoli cause air to move in and out of the lungs.
- a22.** Define compliance and with two common clinical conditions in which lung compliance is higher or lower than normal.
- a23.** Describe an oxyhemoglobin dissociation curve (hemoglobin oxygen equilibrium curve) showing the relationships between oxygen partial pressure, hemoglobin saturation, and blood oxygen content with the

relationship between PO<sub>2</sub> and dissolved plasma O<sub>2</sub> content (Henry's Law).

- a24. Identify the regions in the central nervous system that play important roles in the generation and control of cyclic breathing.
- a25. Differentiate the processes of ingestion, digestion, absorption, secretion, and excretion; including the location in the GI tract where each process occurs.
- a26. List the major excitatory and inhibitory motor neurotransmitters and major digestive hormones in the GI tract and how these biomediators affect function in GI tissues and cells.

### **b. Intellectual Skills**

*By the end of the course, students should acquire the skills required to:*

- b1. Expect the outcome of disturbed function by analysis of the physiological data.
- b2. Solve problems with disturbed physiology through case study
- b3. Interpret the most important physiological laboratory results (blood, respiratory, neuromuscular), to distinguish a physiological from pathological condition.
- b5. Integrate physiology with other basic and clinical sciences.

### **c. Practical and Professional Skills:**

*By the end of the course, students should be able to:*

- c1. Perform hematological tests: estimation of blood H b, bleeding & clotting times, determination of the hematocrite value, the bleeding & clotting times, blood groups, sedimentation rate and osmotic fragility.
- c2. Perform the most important respiratory function tests.
- c3. Perform the measurement of arterial blood pressure.
- c4. Develop manual dissecting s experiments of nerve and muscle.
- c5. Manipulate a stethoscope for hearing heart and respiratory sounds.
- c6. Record and read an electrocardiogram.

- c7. Present physiological scientific data in a graphical form.
- c8. Comment on some clinical parameters such as: ABP, ECG, pulmonary functions for a normal individual.

### **d. General and Transferable Skills:**

*By the end of the course, students should be able to:*

- d1. Use computer and internet to extract information and knowledge
- d2. Work in groups and team
- d3. Communicate with other colleagues in other departments of the faculty
- d4. Present clearly and effectively a scientific topic in the practical class, a staff meeting or the yearly scientific day.
- d5. Retrieve information, demonstrating the ability to perform database searches, and utilize physiological information for solving problems and making decisions that are relevant to the care of individuals.
- d6. Use information technology and library resources to collect information.
- d7. Design a scientific research through the formulation of targeted research questions with adoption of the principles of critical appraisal.

### **3. Course contents:-**

TOPIC	ILOs	% Total hours	Number of hours		
			Total	Lectures	Practical* (Laboratory)
<i>General physiology</i>	a.1→a.3, b.2, d.1, d.4	4	8	8	0
<i>Autonomic nervous system</i>	a.4→a.5 b.6	6	14	14	Zero

<i>Blood</i>	a.17 →a.19 ,b.1, b.4, b.5, b.6, c.1, d.2, d.3, d.6	19	40	24	16
<i>Cardiovascular system</i>	a.10→a.16 b.3, b.6, c.3, c.5, c.6, c.7, c.9, d.5, d.6,	35.5	74	50	24
<i>Nerve &amp; Muscle</i>	a.6→a.9, b.4 c.4, c.7 d.2, d.3, d.5, d.6,	12.5	26	16	10
<i>Respiration</i>	a.20→a.23 .2, b.6, c.2, c.7, c.8, d.6, d.5	14	30	22	8
<i>Digestion</i>	a.24→a.25 b.3, b.4, c.7	9	18	16	2
<b>Total</b>		<b>100%</b>	<b>210</b>	<b>150</b>	<b>60</b>

**Detailed topics of course:**

**A -Theoretical**

**I - Introduction to human physiology**

1-Functional relation of organ system to each other.

2-Homeostasis.

3-Body fluids.

4-Composition and volume of various compartments.

5-Forces influencing exchange of body fluids.

6-Measurement of different fluid compartments.

7- Intracellular communication & control systems.

**II- The autonomic nervous system:**

1-Reflex action and types of reflex arc.

2-Differences between somatic and autonomic reflex action.

- 3-Division of ANS into sympathetic and parasympathetic.
- 4-Autonomic ganglia.
- 5-Distribution and functions of sympathetic nervous system.
- 6-Effect of sympathetic stimulation.
- 7-Distribution and function of parasympathetic.
- 8-Effect of parasympathetic stimulation.
- 9-Integration between sympathetic and parasympathetic functions.
- 10-Higher control of ANS.
- 11-Chemical transmission.

### **III- Blood:**

- 1-Functions of the blood haematocrite values.
- 2-Plasma proteins.
- 3-Blood coagulation,homeostasis, anticoagulants,fibrinolysis, disorders of coagulation.
- 4- Red blood cells formation life span, fate and factors affecting erythropoiesis.
- 5- Anaemias and blood indices.
- 6-Blood groups and Rh factor.
- 7-Blood volume and its regulation.
- 8-White blood cells.
- 9-Platelets.
- 10-Reticuloendothelial system and immune response.

### **IV - Cardiovascular systems:**

- 1-Introduction, systemic and pulmonary circulation.
- 2-Cardiac muscle, excitability action potential, properties of cardiac muscle and factors affecting it

- 3-Normal electrocardiogram relation between electrocardiogram and action potential.
- 4-Cardiac cycle phases.
- 5-Jugular vector, electric axis of the heart.
- 6-Electrocardiographic changes in health and diseases.
- 7-Jugular venous pulse, radial pulse, significance.
- 8-Heart sounds, causes, characteristics, abnormalities.
- 9-Cardiac output measurement, normal values.
- 10-Factors affecting cardiac output, venous return , heterometric regulation, homeometric regulation, effects of heart rate.
- 11- Innervation of the heart, vasosensory areas.
- 12- Heart rate, nervous regulation, chemical regulation.
- 13- Cardiac work, metabolism, cardiac reserve.
- 14- Arterial blood pressure, measurement ,factors affecting it, experimental hypertension .
- 15- Vasomotor centers and functions.
- 16- Arteriole, functions and regulation of its diameter.
- 17- Coronary circulation, and factors affecting it.
- 18- Hepatic circulation and pulmonary circulation.
- 19- Haemorrhage and its effects on circulation.
- 20- Muscular exercise on circulation.

#### **V – Nerve & Muscle:**

- 1- Physiology of neurons.
- 2- Classification, changes in the nerve during conduction of nerve impulse, electric changes, all or non-law, electrotonus.
- 3- Strength duration curve.
- 4- Ionic, metabolic thermal changes in the nerve.

- 5- Myofibril, functions, theory of muscle contraction, neuromuscular junction, motor unit.
- 6- Changes in the muscle during contraction, electric excitability, mechanical, metabolic, thermal.
- 7- Reaction of degeneration rigor mortis.
- 8- Smooth muscles.

## **VI- Respiration:**

- 1- Introduction, functional anatomy.
- 2- Mechanism of respiration.
- 3- Intrapleural, intrapulmonary pressure.
- 4- Volumes and capacities of the lungs.
- 5- Ventilation perfusion, factors affecting exchange of materials through pulmonary membrane.
- 6- Pulmonary function tests.
- 7- Oxygen carriage by the blood.
- 8- Carbon dioxide carriage by the blood
- 9- Regulation of respiration, Respiratory centers, nervous regulation, and chemical regulation.
- 10- Acid-base balance.
- 11- Oxygen therapy, artificial respiration
- 12- Hypoxia & cyanosis.
- 13- Aviation & High altitude.
- 14- Under sea physiology.

## **VII-Digestion:**

- 1- Gastrointestinal motility.
- 2- salivary secretion, innervations, composition, mechanism.
- 3- Gastric hydrochloric acid, mechanism of formation, mechanism of gastric secretion, gastric function tests and gastric motility.
- 4- Vomiting, causes and mechanism.
- 5- Pancreatic secretion. Mechanism and Pancreatic function tests
- 6- Liver, bile secretion, factors affecting its functions, and jaundice.
- 7- Gall bladder, functions, and gall bladder function tests.
- 8- Small intestine, absorption, mechanism of secretion, and factors affecting absorption.

- 9- Large intestine functions.
- 10- Digestion in the gastrointestinal tract.
- 11- Absorption from gastrointestinal tract.

### VIII -Biophysics :

Biophysics topics are selected from the different branches of Physiology.

#### B-Practical

- 1- Hematological tests, estimation of blood hemoglobin, bleeding & clotting times, determination of haematocrite value, blood groups, ESR and osmotic fragility test.
- 2- Respiratory function tests.
- 3- Arterial blood pressure.
- 4- Using stethoscope for hearing heart and respiratory sounds.
- 5- Mechanical changes in the muscle during contraction.
- 6- Excitability and metabolic changes during contraction.
- 7- Effect of different warm, cold and drugs on nerve excitability.

#### **4 – Teaching and learning methods**

- I- **Lectures:** (5 hours / week in three sessions). Students are divided into two groups (about 200 students each) and students attend in big lecture hall.
- II- **Laboratory demonstration and practical training** (2 hours / 2weeks).  
The each student group are divided into 3 subgroups each 25 students in a separate lab, alternating with tutorial classes. The planned practical tests are announced two weeks before.
- III- **Tutorial classes** (2hours /2weeks): three groups (about 30 students each): Attendee in three small lecture halls (30 students each) , during 3 month each term , tutorial class is scheduled and previously announced (2 weeks before).



**IV- A yearly scientific day for the students** : in the form of small groups presentation. The title of the subjects is determined during several meetings with the staff members.

\* Each teaching method is designed to serve different educational goal, and together they provide an appropriately stimulating atmosphere for learning.

**Time Plan :**

Item	Time schedule	Teaching hours	Total hours
-Lectures	5 hours / week in three sessions	1 hr	130 hrs
-Tutorials	Every 2 weeks	3 hrs	36 hrs
-Practical	Every 2 weeks	3 hrs	36 hrs
-Scientific day	Once / year in Feb / March prepared for 6-8 weeks by students and supervised by staff members	6 hrs	6 hrs
<b>Total</b>			<b>280 hrs</b>

**4 – Student Assessment:**

**A- Attendance criteria:**

The minimal acceptable attendance is 70%. Students who fail to attend that percentage of activities will not allowed to apply for final written examination.

**B- Assessment tools:**

TOOL	PURPOSE
Written examination	Assessment of knowledge, understanding

	<b>and intellectual skills</b>
<b>Practical examination</b>	<b>Assessment of knowledge, understanding and practical skills in descriptive and diagnostic abilities</b>
<b>Oral examination</b>	<b>Assessment of knowledge, understanding , attitude &amp; general skills.</b>
<b>Practical log book</b>	<b>Asses Assessment of attendance and evaluation of understanding To be completed during the practical classes of the academic year.</b>
<b>Periodical examination</b>	<b>Assessment of knowledge by sheets examinations including short questions &amp; MCQ.</b>

### **C- Assessment schedule:**

#### ***01. Periodical examinations:***

- Held 2 times i.e. 1 in each term including short questions & MCQ.

Practical log book may be used to answer the exams during the academic year.

- Student should submit their practical log books for the examination. All the sheets of periodical assessment may be answered in the practical log book.

#### ***02. Final examination:***

Held at the end of the academic year for all students.

### **D- Weighing of Assessment:**

<b>Examination</b>	<b>Description</b>	<b>Marks</b>
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<b>Periodical</b>	<b>Sheets/spots</b>	<b>50</b>
<b>Final</b>	<b>written</b>	<b>Short assay: 125</b> <b>M.C.Q.s: 30</b>
	<b>Oral</b>	<b>25</b>
	<b>Practical</b>	<b>Skills: 15</b> <b>Comprehensive: 10</b>
<b>Total</b>	<b>Total</b>	<b>250</b>

#### **E- Grading system:**

- The **minimum passing score** is 150 marks = 60%, at least 37,5% in written exam to be obtained.
- Passing grades are as follows:  
Excellent : 85% and above.  
Very good : 75% up to below 85%.  
Good : 65% up to below 75%.  
Pass : 60% up to below 64%.

#### **F- Examination description:**

Summative assessments are the only used assessment methods at the end of the round and at the end of the year (no formative assessment).

#### **6- List of References:**

- The department issued elementary books just to guide the student to the fundamental theoretical knowledge which stands for a handout for the lectures.
- Suggested materials:



- Gyton on textbook of Human Physiology and Mechanisms of Disease.
- Ganong's, Review of Medical Physiology.
- Illustrated Medical Physiology.

### **7- Facilities required for teaching and learning**

- I-** Lecture rooms in the 1st floor in the faculty.
- II-** 3 practical halls in the department (capacity of each is 25 students).
- III-** Audiovisual aids as: writing board & overhead projectors.

*We certify that all of the information required to deliver this course is contained in the above specification and will be implemented*

#### **Course coordinator:**

**Name:** Prof. dr. Mohamed Hanafy Ahmed Hassan

**Signature**.....**Date**  
.....

#### **Head of Department :**

**Name:** Prof. dr. Hesham Ahmed Daa Abdel-Razek

**Signature**.....**Date**.....  
.....

## Medical physiology and biophysics II

**University:** Menoufia

**Faculty:** Medicine

### A - Administrative Information

**Course title :** Medical physiology and biophysics II

**Code No:** MFM-II 03

**Department offering the course:** Department of clinical physiology

**Programme(s) on which the course is given:** M.B.B.Ch

**Academic year:** second year

**Date of specification :** 2006

**Date of last specification revision :** 2017

**Date of approval by Department and Faculty Council :** August 2017

**Teaching hours:**

**Lecture:** 150 hours  
*hours*

**Practical:** 60 hours

**Total:** 210

### B-Professional information

#### 1 – Overall aims of course:

*By the end of the course, students should be able to:*

- Continue upgrading the physiological basis taken in his first year.
- Explore in details the functions of the endocrinal, the reproductive, the nervous , the renal & the digestive systems as well as their integration to achieve homeostasis.
- Integrate physiological data & mechanisms with the on going basic sciences : anatomy , histology & biochemistry and their clinical applications.
- Follow the rapidly changing and inflating details about molecular Physiology & genetics .

## **2 – Intended learning outcomes:**

### **a- knowledge & understanding:**

*By the end of the course, students should be able to:*

- a1.** Describe the cutaneous and proprioceptive mechanoreceptors and their function with the submodalities of somatic sensibility subserved by the Dorsal Column- Medial Lemniscus system and by the spino-thalamic system, respectively.
- a2.** Differentiate between fast and slow pain and identify the peripheral nerve fibers and central connections that account for these different types of pain.
- a3.** Define motor unit and how it relates to myotomes of the body.
- a4.** Explain the functional basis of lower motor neurons in the spinal cord and brainstem with the anatomical location, function, and afferent neurotransmission of muscle spindle and Golgi tendon organs.
- a5.** Explain the role of the gamma efferent system in the stretch reflex and the significance of alpha-gamma co-activation. Contrast the actions of static and dynamic gamma motor neurons.
- a6.** Outline the three-dimensional structure of the membranous labyrinth.
- a7.** Identify the components of the labyrinth innervated by the eighth cranial nerve and the biophysics and receptor mechanism of the labyrinthine hair cells.
- a8.** Recognize the function and location of the brainstem reticular formation, basal ganglia and cerebellum, and effects of their lesion.
- a9.** Describe the hypothalamus in terms of body homeostasis and integration with the ANS.
- a10.** Define the location of short-term (working) memory and long-term memory and the requirement of a functional medial temporal lobe and medial diencephalic structures and tracts for declarative memory function.
- a11.** Discuss the gross structure of the eye and the function of eye structures.
- a12.** Describe the function of the outer, middle, and inner ear structures in the mechano-electrical transduction process of sound energy into nerve impulses.

- a13.** Identify the location, structure, and afferent pathways of taste and smell receptors.
- a14.** Define in sequence the tubular segments through which ultrafiltrate flows after it is formed at Bowman's capsule to when it enters the renal pelvis with each structure as being located in the renal cortex or renal medulla. And along with the handling of water and solutes in every structure.
- a15.** outline the normal range of pH values, and the upper and lower limits compatible with life with the role of buffers in maintaining pH, including the roles of the lungs and kidneys.
- a16.** Explain the role of the renin-angiotensin-aldosterone systems in the regulation of sodium balance and arterial pressure with emphasis on the actions of angiotensin II on renal hemodynamics and tubular transport.
- a17.** Contrast the terms endocrine, paracrine, and autocrine based on the site of hormone release and the pathway to the target tissue recognizing major differences in mechanisms of action of peptides and steroids working through membrane receptors and steroids, vitamin D, and thyroid hormones working through nuclear receptors.
- a18.** Describe the pituitary lobes with respect to cell types, and hormone secretion with the physiologic effects and mechanisms of action of pituitary hormones.
- a19.** Clarify the steps in the biosynthesis, storage, and secretion of triiodothyronine (T3) and thyroxine (T4) and their regulation with the physiologic effects and mechanisms of action of thyroid hormones.
- a20.** Name the cells of origin for parathyroid hormone, its biosynthesis and degradation with the target organs and cell types for parathyroid hormone and describe its effects on each and describing the regulation of parathyroid hormone secretion and the role of the calcium-sensing receptor.
- a21.** Identify the functional zones (one medullary and three cortical zones), and innervations of the adrenal glands and the principal hormones secreted from each zone with the major physiological actions of glucocorticoids and major mineralocorticoids with their biological actions and target organs or tissues.

- a22.** Define the major hormones secreted from the endocrine pancreas, their cells of origin, and their chemical nature.
- a23.** Describe the physiological functions of the major components of the male .and female reproductive tract.
- a24.** Discuss the changes in metabolic fuel utilization and the role of appetite and metabolic rate in the maintenance of long-term energy balance and fat storage with the factors that regulate appetite and fuel oxidation.

### **b. Intellectual Skills**

*By the end of the course, students should acquire the skills required to:*

- b1. b1.** Expect the outcome of disturbed function by analysis of physiological data.
- b2.** Solve problems with disturbed physiology through case study
- b3. b54.** Interpret the most important physiological laboratory results to distinguish a physiological from pathological condition..
- B4.** Integrate physiology with other basic clinical sciences.
- .

### **c. Professional and Practical Skills:**

*By the end of the course, students should be able to:*

- c1.** Perform a systematic examination of the nervous system including motor system, tendons jerks and muscle tone.
- c2.** Perform the most important visual tests: Corneal & conjunctival reflexes, corneal light & accommodation reflexes, visual acuity, color vision, vision field defects hearing tests.
- c3.** Perform a preliminary examination of common endocrinal conditions acromegaly, dwarfism a thyroid disease (hypo or hyperfunctions).
- c4.** Record and read an electroencephalogram.
- c5.** Present physiological scientific measurements used to test different body functions.



## **d. General and Transferable Skills:**

*By the end of the course, students should be able to:*

- d1.** Use computer and internet to extract information and knowledge
- d2.** Maintain honesty & integrity in all relations with teachers and colleagues.
- d3.** Work separately or in a team to research and prepare a scientific topic.
- d4.** Present clearly and effectively a scientific topic in the practical class, a staff meeting or the yearly scientific day.
- d5.** Recognize the scope and limits of their role as student as well as the necessity to seek and apply collaboration with other workers
- d6.** Maintain a professional image concerning behavior, dress & speech.
- d7.** Use information technology and library resources to collect information.
- d8.** Design a scientific research through the formulation of targeted research questions with adoption of the principles of critical appraisal.

## **3 – Course Contents:**

TOPIC	ILOs	% Total hours	Number of hours		
			Total	Lectures	Practical* (Laboratory)
<i>Central Nervous System</i>	a.1→a.10 b.1,b.2, b.4, c.1, c.4, c.6, d.1, d.3, d.7	40.5	58	55	30
<i>Endocrine and Reproduction</i>	a.17 →a.23 b.1, b.2, b.3, b.5 c.3, c.4	23.5	49	45	4

	d.2, d.4, d.8, d.9				
<i>Metabolism</i>	a.24 b.1, b.5 c.5 d.2, d.4, d.7, d.9	9.5	20	12	8
<i>Renal and acid base balance</i>	a.14 → a.16 b.1, b.4 b.6, c.7 d.2, d.3, d.5	14	30	22	8
<i>Special senses</i>	a.11 → a.13 b.2, b.4 c.2 d.1, d.2, d.3, d.6	12.5	26	16	10
<b>Total</b>		<b>100%</b>	<b>210</b>	<b>150</b>	<b>60</b>

**Detailed topics of course:**

**A -Theoretical**

**I - Central nervous system**

1-Introduction.

2-Receptors, classification, action, sensory discharge, adaptation, sensory code.

3-Somatic sensation from the body.

4--Somatic sensation from the head and headache.

5-Thalamus, connection and lesion.

6-Pain sensation.

7-Ascending tracts.

- 8-Syringomyelia, tabes dorsalis and effects of section of dorsal root.
- 9-Cerebral cortex sensory areas,motor and association areas.
- 10-Hypothalamus, basal ganglia, functions and lesion.
- 11-Cerebellum, nervous connection, functions and lesion in spinal cord.
- 12-Lesion of posterior limb of internal capsule, hemisection of the
- 13-Synapse, Synaptic transmission properties.
- 14-Properties of spinal reflex action.
- 15-Muscle tone, definition, theories, stretch reflex, properties components  
and supraspinal centers affecting muscle tone.
- 16- Upper motor neurone lesion and lower motor neurone lesion in spinal  
cord.
- 17-Membranous labyrinth and postural reflexes.
- 18-Speech and its disorders.

## **II- Endocrine:**

- 1-Introduction, thyroid functions, synthesis, control of secretion, disorders, thyroid function tests.
- 2-Thyrocalcitonin, parathyroid control of secretion, functions, disorder.
- 3-Suprarenal cortex, functions, control of secretion, disorders, cortical function tests, suprarenal medulla.
- 4-Pancreas, functions, control of secretion, disorders.
- 5-Male and female sex organs, functions, control of secretion,disorders.
- 6-Ovarian cycle, menstrual cycle.
- 7-Physiology of pregnancy, placenta.
- 8-Physiology of lactation.

9-Pituitary, anterior and posterior disorders.

### III- Metabolism:

1-Introduction, respiratory quotient, metabolic rate, basal metabolic rate, measurements and factors affecting it.

2-Specific dynamic action food.

3-Effect of muscular exercise on metabolism.

4-Body temperature regulation in health and diseases.

5-Starvation and obesity.

### IV - Special senses:

1-Introduction to vision, anatomy.

2-Outer layer of the eye, corneal transparency, functions of cornea and sclera.

3-Middle layer of the eye, choroid, ciliary body and iris.

4-Mydriasis, myosis, light and accommodation reflex pathway.

5-Errors of reflection myopia, hypermetropia, Astigmatism, correction.

6-Retina, visual pathway, visual acuity.

7-Colour and binocular vision.

8-Introduction to ear, outer ear.

9- Middle ear, functions.

10- Sound transmission.

11-Auditory pathway, deafness, tests of hearing.

12-Chemical sense, smell, pathway.

13-Taste sensation, pathway.

### V – Renal:

- 1-Introduction, anatomy, glomerular function, glomerular filtration rate and factors affecting it.
- 2-Autoregulation, renal plasma flow.
- 3-Plasma clearance.
- 4-Tubular function, proximal tubule distal tubule and loop of Henle.
- 5-Hormones released and control of renal function.
- 6-Kidney function tests.
- 7-Diuresis, micturition reflex.

### **B-Practical**

- 1- Examination on central nervous system, sensory, motor, muscle tone, tendon jerk and other reflexes.
- 2- Demonstration to some clinical disorders of C.N.S. function tests.
- 3- Demonstration to some clinical disorders of endocrine.
- 4- Measurement of metabolic rate.
- 5- Kidney function tests.
- 6- Examination on the cranial nerves.
- 7- Tests of hearing.
- 8- Fundus examination.
- 9- Visual field.

### **4 – Teaching and learning methods:**

- 1- **Lectures:** (5 hours / week in three session). Students are divided into two groups (about 200 students each) and students attend in big lecture hall.



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**II- Laboratory demonstration and practical training** (2hours / 2weeks). The each student group are divided into 3 subgroups each 25 students in a separate lab. Alternating with tutorial classes. And the planned practical tests are announced two weeks before.

**III- Tutorial classes** (2hours /2weeks): three groups (about 30 students each): Attendece in two small lecture halls (30 students each) , during 3 month each term , tutorial class is scheduled and previously announced (2 weeks before).

**IV- A yearly scientific day for the students** : in the form of small groups presentation. The title of the subjects is determined during several meetings with the staff members.

\* Each teaching method is designed to serve different educational goal, and together they provide an appropriately stimulating atmosphere for learning.

#### **IV.04. Time Plan :**

Item	Time schedule	Teaching hours	Total hours
<b>-Lectures</b>	5 hours / week in three sessions	<b>1 hr</b>	<b>130 hrs</b>
<b>-Tutorials</b>	Every 2 weeks	<b>3 hrs</b>	<b>36 hrs</b>
<b>-Practical</b>	Every 2 weeks	<b>3 hrs</b>	<b>36 hrs</b>
<b>-Scientific day</b>	Once / year in Feb / March prepared for 6-8 weeks by students and supervised by staff members	<b>6 hrs</b>	<b>6 hrs</b>
<b>Total</b>			<b>280 hrs</b>

#### **5 – Student Assessment:**

##### **A- Attendance criteria**

The minimal acceptable attendance is 70%. Students who fail to attend that percentage of activities will not allowed to apply for final written examination.

### **B- Assessment tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding and intellectual skills</b>
<b>Practical examination</b>	<b>Assessment of knowledge, understanding and practical skills in descriptive and diagnostic abilities</b>
<b>Oral examination</b>	<b>Assessment of knowledge, understanding , attitude &amp; general skills.</b>
<b>Practical log book</b>	<b>Asses Assessment of attendance and evaluation of understanding To be completed during the practical classes of the academic year.</b>
<b>Periodical examination</b>	<b>Assessment of knowledge by sheets examinations including short questions &amp; MCQ.</b>

### **C- Assessment schedule:**

#### ***1. Periodical examinations:***

- Held 2 times i.e. 1 in each term including short questions & MCQ.

Practical log book may be used to answer the exams during the academic year.

- Student should submit their practical log books for the examination.

All the sheets of periodical assessment may be answered in the practical

log book

## 2. Final examination:

Held at the end of the academic year for all students.

### D- Weighing of assessment:

Examination	Description	Marks
<i>Periodical</i>	<b>Sheets/spots</b>	<b>50</b>
<i>Final</i>	<b>written</b>	<b>Short assay: 125</b> <b>M.C.Q.s: 30</b>
	<b>Oral</b>	<b>25</b>
	<b>Practical</b>	<b>Skills: 15</b> <b>Comprehensive: 10</b>
<b>Total</b>	<b>Total</b>	<b>250</b>

### E- Grading system:

- The **minimum passing score** is 150 marks = 60%, at least 37,5% in written exam to be obtained.
- Passing grades are as follows:
  - o Excellent : 85% and above.
  - o Very good : 75% up to below 85%.
  - o Good : 65% up to below 75%.
  - o Pass : 60% up to below 64%.

### F- Examination description:

Summative assessments are the only used assessment methods at the end of the round and at the end of the year (no formative assessment).



## **6- List of references:**

- The department issued elementary books just to guide the student to the fundamental theoretical knowledge which stands for a handout for the lectures.
- Suggested materials:
  - Gyton on textbook of Human Physiology and Mechanisms of Disease.
  - Ganong's, Review of Medical Physiology.
  - Illustrated Medical Physiology.

## **7- Facilities required for teaching and learning:**

**I-** Lecture rooms in the 1st floor in the faculty.

**II-** 3 practical halls in the department (capacity of each is 25 students).

**III-** Audiovisual aids as: writing board & overhead projectors.

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

### **Course coordinator:**

**Name:** Prof. dr. Mohamed Hanafy Ahmed Hassan

**Signature**.....**Date**  
.....

### **Head of Department of family medicine.**

**Name:** Prof. dr. Hesham Ahmed Diaa Abdel-Razek

**Signature**.....**Date**.....  
.....

# Medical Biochemistry I

University: Menoufia

Faculty: Medicine

## A-Administrative information

Course title : Medical Biochemistry I

Code No: MFM-I 04

Department offering the course: **Medical Biochemistry and Molecular Biology**

Programme(s) on which the course is given: M.B.B.Ch

Academic year: first year

Date of specification : 2006

Date of last specification revision : 2017

Date of approval by Department and Faculty Council : August 2017

Teaching hours:

Lectures: 75                      practical: 60                      Total: 135 hours

## B-Professional information

### **1. Aim of the course:**

- a) To help students to become familiar with the biochemical knowledge that will assist students in understanding biochemical alteration in health and disease.
- b) To enable the students to be oriented with structure and functions of important structures as carbohydrates, proteins and lipids, concepts of molecular biology and how this field gave us a new perspective and new technology used in the diagnosis, treatment and new drugs design.

### **2. Intended learning outcomes (ILOs):**

#### **a- Knowledge and Understanding:**

*By the end of the course, students should be able to:*

- a1. Define expressions of concentration, surface tension, viscosity, osmotic pressure, types of solution, pH, buffers, acidosis and alkalosis.
- a2. Describe the types, structure, functions and isomerism of carbohydrates and importance of sugars and sugar derivatives.
- a3. Recognize the types, structure and functions of lipids and importance of the compound and derived lipids.
- a4. Describe different amino acids and protein structure, classification and properties as well as structure and functions of hemoglobin.
- a5. Explain the importance of minerals to the body and factors affecting them.
- a6. Discuss cell membrane structure, functions and membrane transport.
- a7. Identify DNA structure, organization, replication, mutation and repair as well as RNA structure, types, transcription and protein biosynthesis and recombinant DNA techniques used in diagnosis and therapy.
- a8. Define nature of enzymes, mechanisms of action, isoenzymes, different classes of enzymes and their role in the diagnosis of diseases.
- a9. Illustrate the sources of free radicals and their toxic effect as well as the role of antioxidant in preventing of these toxic effects.

### **b-Intellectual skills**

**By the end of the course, students should be able to:**

- b1. Interpret results of blood gases.
- b2. Interpret symptoms, signs and biochemical laboratory findings of some mineral and nutritional deficiency disease.
- b3. Point-out the application of molecular biology in basic and clinical science

### **c-Professional and Practical Skills**

***By the end of the course, students should be able to:***

- c1. Identify laboratory reagents and instruments used in biochemistry laboratory.

- c2.** Identify the physical properties of carbohydrates and proteins
- c3.** Perform chemical reactions to identify different carbohydrates and proteins
- c4.** Identify unknown solutions.

**d-General and transferable skills:**

- d1.** Work effectively in a group in lab or during preparation of seminars.
- d2.** Deal with staff and co-staff members with respect regardless of degree or occupation.
- d3.** Training for research

**3. Course contents:**

Subjects	ILOs covered	Lecture	Practice & Tutorial	Total Hours
• Carbohydrates chemistry	a1,a2,c1,d17	8	15	23
• Lipid chemistry	a1,a3	8	3	11
• Protein chemistry and Hb	a3,c1,d17	9	17	26
• Physical chemistry	a1,b1,b3,d8	3	4	7
• Enzymes	a1,A7,c1	8	4	12
• Minerals	a8,a10,b1,b3,d8	5	2	7
• Nutrition	a8,a10,b1	2	2	4
• Membranes	a1	3	2	5
• Nucleotide chemistry	a1	3	2	5
• Molecular Biology	a6	18	4	22
• Free radicals and antioxidants	a6	3	3	6
• Cancer and oncogene Stem cells	a1,a9	5	2	7
<b>Total Hours</b>	<b>A1,A9,b1</b>	<b>75</b>	<b>60</b>	<b>135</b>

## **A) Lectures:**

### **1) Biophysical chemistry:**

- 1- Molecular structure of water.
- 2- Different types of bonds.
- 3- Solution.
- 4- pOH and pH.
- 5- Acids and bases.
- 6- Buffers and mechanisms of buffer action.
- 7- Osmotic pressure and surface tension.
- 8- Adsorption, elution and dialysis.
- 9- Diffusion.
- 10- Expression of concentration.

### **2) Carbohydrates:**

1. Definition, functions and classification: Monosaccharide, disaccharides and polysaccharides
2. Monosaccharide: Classification, structures and physical and chemical properties. Sugars exhibit various forms of isomerism.
3. Monosaccharide of physiological importance: glucose, fructose, galactose and mannose.
4. Glycoside formation with each other and with other compounds.
5. Sugar derivatives of importance: sugar acids, sugar alcohols, amino sugars and deoxysugars.
6. Disaccharides: maltose, sucrose, and lactose.
7. Polysaccharides starch, glycogen, cellulose and inulin.
8. Glycosaminoglycans (mucopolysaccharide): Structure, functions and classification.
9. Glycoprotein (mucoprotein) and proteoglycan.

### **3) Lipids:**

1. Lipids of physiological functions - Definition, classification and general function.
2. Fatty acids: Saturated and unsaturated, w3 and w6 PUFA, OH fatty acids and methyl fatty acids.
3. Triacylglycerol the main storage form of lipids.
4. Waxes.
5. Phospholipids: phosphatidyl compounds- sphingomyelins. Importance and functions.
6. Glycolipids.
7. Sterols: ergosterol and cholesterol, 7-dehydrocholesterol, vitamin D, bile acids and steroid hormones.
8. Eicosanoids: prostanoids, prostaglandins, prostacyclins, thromboxanes, leukotrienes and lipoxins.
9. Polyprenoids: share the same parent cholesterol, ubiquinone and dolichol
10. Isoprenoids: fat soluble vitamins and carotenoids
11. Lipid peroxidation and antioxidants.

### **4) Amino acids and proteins:**

1. Amino acids: classification according to different parameters: Essentiality, polarity, nutritionally, and structural.
2. Properties: optical activity, amphoteric and general properties, peptide formation (examples - glutathione- insulin etc) - derived compounds.
3. Biochemical importance and functions of proteins: structural - defense - enzymes - transport - regulation - some hormones.
4. Conformation of the proteins: primary. secondary, tertiary, quaternary - domains - motifs denaturation.
5. Classification: simple - conjugated.

6. Methods of proteins separation.

### **5) Chemistry of Hemoglobin:**

Chemistry of Hemoglobin and Myoglobin, structural function of hemoglobin, hemoglobin derivatives - types of hemoglobin - cytochromes – catalases.

### **6) Nucleic acids:**

Chemistry of nucleic acids: nitrogenous bases: purines and pyrimidines, tautomerization of bases, nucleosides, nucleotides and their analogues.

### **7) Molecular biology:**

1. DNA: structure, function and denaturation .RNA: structure, function and types
2. DNA organization (histones, nucleosome, chromatin, chromosomes, mitochondrial DNA), rearranged genetic material, DNA replication, cell cycle and repair.
3. RNA synthesis, posttranscriptional processing and modification.
4. Protein synthesis, genetic code, mutation and posttranslational processing.
5. Regulation of gene expression (operon model), histones acetylation, methylation of DNA, enhancers, repressors, reporter gene, motifs of regulatory proteins, gene amplification and rearranged.
6. Recombinant DNA technology (genetic engineering), restriction enzymes, cloning, blotting and hybridization techniques, DNA sequencing, polymerase chain reaction (PCR), applications of recombinant DNA technology.

### **8) Cancer and oncogenes:**

- 1- Causes of cancer.
- 2- The role of oncogenes in carcinogenesis.
- 3- Proto-oncogenes and the mechanisms to be converted to oncogenes.

nes.

4- Mechanisms of action of oncogenes.

5- Tumor suppressor genes.

### **9) Cell cycle and Apoptosis:**

1- Cell cycle: The resting phase and the different phases of cell cycle.

2- Control of cell cycle: Cyclins and cyclin-dependent kinases.

3- Apoptosis: receptor-mediated apoptosis.

### **10) Biological membranes:**

1. Biological membranes (functions and characters).

2- Membrane structure (lipid, protein and carbohydrates).

3- Membrane transport (active and passive, endo and exocytosis).

4- Signals transmission across membranes.

5- Mutations affecting membrane proteins.

### **11) Minerals:**

1- Macro minerals (Calcium, phosphorus, magnesium, sodium potassium, chloride).

2- Micro minerals (trace elements) (iron, copper, zinc, manganese, cobalt, iodine, fluoride, selenium, molybdenum, chromium, boron, cadmium, aluminum).

### **12) Enzymes:**

1. Nature of enzymes: protein mainly - ribozymes.

2. Mechanism of actions

3. Specificity.

4. Nomenclature and classification.

5. Coenzymes and activators



6. Isoenzymes and zymogens.
7. Enzyme units - activity - specific activity - factors affecting enzyme activity.
8. Enzyme kinetics Michaelis constant  $k_m$  and its significance,  $V_{max}$ , Lineweaver -Burk plot (double reciprocal plot) and determinations of  $k_m$  and  $V_m$ .
9. Inhibitors: different types and their effect on  $k_m$  and  $V_m$
10. Regulation of enzyme activity.
11. Application and significance of enzyme assay in medicine.

### **13) Free radicals and antioxidants:**

- 1- Free radicals (sources, toxic effects on tissues).
- 2- Antioxidants (types and their roles in prevention and treatment of chronic diseases and cancer).

### **14) Nutrition:**

- 1- Energy requirements.
- 2- Carbohydrates, lipids, amino acid (nitrogen), fibers, minerals and vitamins requirements.

### **B) Practical classes:**

1. Laboratory orientation includes identification of biochemical reagents and instruments that are used in biochemistry laboratory
- 2- Define normal and molar solutions.
2. Studying physical and chemical properties of carbohydrates and individual sugars. Tests for carbohydrates includes: Molish,s test, iodine test, hydrolysis test, Benedict test, Fehling test and Barfoed,s test.
3. Studying physical and chemical properties of lipids and fatty acids.
4. Color reactions of proteins includes: Biuret test, heat coagulation test, acidification test, Xanthoproteins test, Millon test and Rosenhe

im test. Identification of unknown protein

5. General scheme for identification of unknown solution.

**C) Tutorial classes:**

Course	Subject	Method of tutorial
<b>Carbohydrates</b>	*Chemical and physical properties *Clinical importance of glycosides/glycoprotein	*Teaching *Self learning
<b>Lipids</b>	*Chemical and physical properties of FA *Rapidly. Iodine no.	*Teaching *Self learning
<b>Proteins and Hemoglobin</b>	*Chemical and Physical properties of AA *Extracellular matrix *Metalloproteins, clinical importance	*teaching *self-learning *self learning
<b>PH</b>	Acidosis and Alkalosis	Teaching Self learning
<b>Enzymes</b>	*Enzymes inhibitors *Clinical importance of enzymes	Teaching Self learning
<b>Minerals</b>	Ca, iron, Cu importance	Self learning
<b>Nutrition</b>	*Malnutrition *Parental nutrition	Self learning Self learning
<b>Nucleotides</b>	Difference between DNA/RNA	Teaching
<b>Molecular biology</b>	*DNA technology	Teaching

\*Molecular biology implementation Self learning

#### **4. Teaching and learning methods:**

##### **1- Lectures: 2 lectures/week (3 h/w)**

The students are divided into two groups. Each group has a 3-hour lectures per week.

##### **2- Practical classes and tutorials:**

The students are divided into small groups. Each group has a 2-hour

practical class per week. Students of each group are divided into small subgroups. Both subgroups rotate between tutorial class aids and practical class.

#### **Time plan:**

Item:	Time schedule	Duration in weeks	Total hours
Lectures	3 hours/week	30	75
Practical and Tutorial	2 hours/ week	30	60
<b>Total</b>	<b>5 hours/ week</b>		<b>135</b>

#### **5. Student Assessment:**

##### **A- Attendance criteria:**

The minimum acceptable practical and tutorial attendance is 75%. Students need to attend at least 75 % in order to attend for the final practical exam

mination.

### **B- Assessment tools:**

<b>Tool</b>	<b>Purpose</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding and intellectual skills.</b>
<b>Oral examination</b>	<b>Assessment of knowledge and understanding</b>
<b>MCQs examination</b>	<b>Assessment of knowledge, understanding and intellectual skills.</b>
<b>Practical examination</b>	<b>Assessment of practical skills</b>

### **C- Assessment schedule:**

#### **1. Periodic assessment:**

Held in 3 to 4 times/year, for all students. Those who don't attend the assessment test(s) for acceptable reason(s); their marks will be raised as a proportion from the total assessment tests score.

#### **2. Final examination:**

At the end of the academic year (May) for all students. The exam is re-held in September for those who fail to pass the final exam or postpone it

### **D- Weighing of assessment**

<b>Examination</b>	<b>Marks allocated</b>
<b>Assessment tests + Attendance</b>	<b>45 (30 %)</b>
<b>Final examination</b>	
<b>Written and MCQs</b>	<b>75 (50%)</b>
<b>Oral</b>	<b>15 (10 %)</b>
<b>Practical</b>	<b>15 (10 %)</b>
<b>Total</b>	<b>150 (100 %)</b>

### **E- Grading System**

1. The minimum passing score is 90 marks provided at least 22.5 marks are obtained in the final written examination.
2. Passing grades are: EXCELLENT > 85%, VERY GOOD 75-<85%, GOOD 65-<75% and Sufficient 60-<65%.

### **F- Examination Description:**

<b>Examination</b>		<b>Description</b>
<b>Assessment tests</b>	<b>Written</b>	<b>A 20 min written paper composed of MCQs</b>
<b>Final examination</b>	<b>Written</b>	<b>A 3-hour written paper composed of short essay, problem solving questions and MCQs</b>
	<b>Practical</b>	<b>A 2- hours practical examination composed of two unknowns of carbohydrates and protein solution</b>
	<b>Oral</b>	<b>One oral examination station</b>

### **6. List of references:**

#### **A) Assigned Textbooks:**

3. Harper's Illustrated Biochemistry: 30th Ed by Murray RK, Granner DK, Mayes PA, Rodwell VW, McGraw-Hill companies New York, 2015.
1. Lippincott's Reviews of Biochemistry, 6th edition by Champe PC, Harvey RA, Ferrier DR, Lippincott William & Wilkins London, 2014
2. Text book of Biochemistry with Clinical Correlations 7th Ed, Devlin T M Ed. Wiley-Liss New York 2008.

#### **B) Lectures handout:**

Lectures Notes for first year medical students by staff members of Department Medical Biochemistry, Faculty of Medicine, Menoufiya University.

### **C) Manuals for practical:**

Practical Notes for first year medical students by staff members of Department of Medical Biochemistry, Faculty of Medicine, Menoufia University.

### **7- Facilities required for teaching and learning:**

- **Lecture Theatre:** provided by the Faculty.
- **Laboratory:** laboratory facilities to perform the required experiments are available in the department.

***We certify that all of the information required to deliver this course is contained in the above specification and will be implemented***

#### **Course coordinator:**

**Name:** Maha Hamouda

**Signature**.....**Date** .....

#### **Head of Department:**

**Name:** Maha Hamouda

**Signature**.....**Date**.....

.....

# Medical Biochemistry II

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title:** Biochemistry II

**Course code:** MFM-II 04

**Department offering the course:** Medical Biochemistry and Molecular Biology

**Academic year\level:** second year

**ate of specification:** 2006

**Date of last specification revision:** 2017

**Date of approval by Department and Faculty council:** August 2017

**Total teaching hours:**

**Lectures:** 75

**Practical:** 60

**Total:** 135 hours

### **I. Aim Of The Course:**

- To help the students to understand metabolic processes occurring in the human body that can explain the biochemical basis of disease.
- To make students familiar with the various control and integrating mechanisms of different metabolic processes.
- To give students experience in biochemical methodology in order to be aware with the clinical biochemistry techniques as diagnostic tools and to be able to interpret the results for appropriate diagnosis.

### **2. Intended learning outcomes (ILOs):**

#### **a- Knowledge and understanding**

*By the end of the course, students should be able to:*

- a1. Define the different metabolic pathways of carbohydrates and factors affecting blood glucose level.
- a2. Define the different metabolic pathways of lipids, lipoproteins and ketones bodies and factors affecting their blood level.
- a3. Describe amino acids degradation, fate of ammonia and amino acids synthesis as well as metabolic disorders of Heme.
- a4. Illustrate the steps and regulatory mechanisms of these pathways.
- a5. Mention the related metabolic disorders and their clinical application on biochemical and molecular basis.
- a6. Define the structure, functions and sources of vitamins and their deficiency manifestation as well as the effects of excessive intake.
- a7. Outline the structure and functions of hormones, their mode of action and the metabolic disorders related to these hormones.
- a8. Describe the components of some body fluids; blood, urine, milk, semen, CSF and sweat.
- a9. Explain the different mechanisms which the body uses to get rid of various types of foreign chemical as drugs, food additives and pollutants.
- a10. Discuss the role of Proto-oncogenes and oncogenes in carcinogenesis.

### **b- Intellectual skills**

*By the end of the course, students should be able to:*

- b1. Interpret symptoms, signs and biochemical laboratory findings of some inborn errors metabolic disorders.
- b2. Interpret urine report outcome.
- b3. Judge the clinical significance of determination of plasma levels of glucose, total proteins, albumin, cholesterol, creatinine and uric acid



- b4.** Analyze the etiology of metabolic disturbance in a given case study report.
- b5.** Interpret symptoms, signs and biochemical laboratory findings of some vitamins deficiency disease.
- b6.** Correlate the clinical significance of some enzymes with clinical applications.

### **c- Professional and practical skills**

*By the end of the course, students should be able to:*

- c1.** Identify the physical and chemical characters of urine sample.
- c2.** Perform chemical tests to detect abnormal constituents of urine.
- c3.** Estimate serum levels of glucose, total proteins, albumin, cholesterol, creatinine and uric acid by colorimetric methods.

### **d- General and transferable skills**

*By the end of the course, students should be able to:*

- d1.** Work effectively in a group in lab or during preparation of seminars.
- d2.** Deal with staff and co-staff members with respect regardless of degree or occupation.
- d3.** Search for a certain topic (research).

## **3. Course contents:**

Subjects	ILOs Covered	Lectures	Practical & Tutorial	Total Hours
• Carbohydrates metabolism.	a8,a10,A14,b1,b2,b12,c1,c3	12	15	27
• Bioenergetics & Biological oxidation.	A1	4	2	6
• Lipid metabolism.	A8,a10,A14,b1,b2,b12	14	8	22
• Proteins & amino acids metabolism.	A8,a10,b1,B2,B4,b12,c1,c3	14	17	31

• Heme metabolism.	A14,a8,a10,b1,b2	3	2	5
• Integration of metabolism.	A14,b1,b2	5	3	8
• Purines and Pyrimidines metabolism.	A6	3	4	7
• Vitamins.	A14,B1,B2,B4,a8,a10,b12	9	3	12
• Hormones & their mode of action.	a14,b1,b2,a8,a10,b12,c1,c3	8	4	12
• Metabolism of xenobiotics.	a9	3	2	5
<b>Total hours</b>		<b>75</b>	<b>60</b>	<b>135</b>

## B) Lectures:

### 1) Metabolism of carbohydrates:

- 1- Dietary carbohydrates, digestion and absorption.
- 2- Glycolysis and oxidation of pyruvate.
- 3- Citric acid cycle and the catabolism of acetyl CoA,
- 4- Metabolism of glycogen.
- 5- Gluconeogenesis and control of blood glucose,
- 6- Pentose phosphate pathway, uronic acid pathway and other pathways of hexose metabolism (fructose, galactose and aminosugars).
- 7- Metabolic disorders of carbohydrate metabolism and their clinical implications with special emphasis on diabetes mellitus and other disorders of carbohydrate metabolism and their clinical importance.

### 2) Bioenergetics and biological oxidation:

- 1- Free energy & exergonic and endergonic processes.
- 2- High-energy phosphate.
- 3- Redox potential.

4- Oxido-reductases (oxidases, dehydrogenases, hydroperoxidases and oxygenases).

### **3) Respiratory chain:**

- 1- Components of respiratory chain
- 2- Oxidative phosphorylation.
- 3- Respiratory chain inhibitors.
- 4- Chemiosmotic theory.

### **4) Metabolism of lipids:**

- 1- Dietary lipids, digestion and absorption.
- 2- Biosynthesis of fatty acids.
- 3- Oxidation of fatty acids and ketogenesis.
- 4- Metabolism of unsaturated fatty acids and eicosanoids.
- 5- Metabolism of Acylglycerols and sphingolipids.
- 6- Lipid transport (lipoproteins) and storage.
- 7- Cholesterol synthesis, transport and excretion.
- 8- Metabolic disorders of lipid metabolism and their clinical implications.

### **5) Metabolism of proteins:**

- 1- Dietary proteins, digestion and absorption.
- 2- Biosynthesis of the nutritionally nonessential amino acids.
- 3- Catabolism of proteins and amino acid nitrogen (metabolism of ammonia and urea cycle).
- 4- Catabolism of the carbon skeletons of amino acids.
- 5- Conversion of amino acids to specialized products.

6- Metabolic disorders of proteins and amino acids metabolism and their clinical implications.

### **6) Metabolism of Heme:**

- 1- Biosynthesis of porphyrins and heme.
- 2- Catabolism of heme produces bilirubin.
- 3- Porphyrins and hyperbilirubinaemia (unconjugated and conjugated).

### **7) Integration of metabolism:**

- 1- Interconversion of major food stuffs.
- 2- Metabolic interrelationship between adipose tissue, the liver and extrahepatic tissues.
- 3- Starve-fed state: early fasting - fasting - fed.
- 4- Glucose homeostasis.
- 5- Metabolic interrelationship of tissues in various hormonal states obesity, exercise, pregnancy and lactation.

### **8) Purine and pyrimidine nucleotides metabolism:**

- 1- Digestion and absorption of nucleic acids.
- 2- Biosynthesis of purine and pyrimidine nucleotides.
- 3- Catabolism of purine and pyrimidine nucleotides.
- 4- Metabolic disorders of purine and pyrimidine nucleotides metabolism (including gout) and their clinical implications.
- 5- Synthetic base analogues and their clinical use.

### **9) Vitamins:**

1. Introduction and Classifications

2. Water soluble vitamins (vit. C, B1, B2, Niacin, B6, Biotin, Folic acid, B12, Panththenic acid, Lipoic acid) and the derived coenzymes - biochemical changes due to deficiency.
3. Fat soluble vitamins (A, D, E, K) and their role in biochemical activities

### **10- Hormones and their mode of action:**

- 1- Hormones that bind to intracellular receptors.
- 2- Hormones that bind to cell surface receptors.
- 3- Secondary messengers (cAMP, cGMP, calcium, phosphatidylinositol, kinase and phosphatase).
- 4- Hormones that regulate calcium: Parathyroid hormones, calcitonin and calcitriol.
- 5- Endocrine functions of pancreas: Insulin, glucagons, somatostatin and pancreatic polypeptide: Structure, function and their pathological disorders.
- 6- Hormones of hypothalamus, pituitary, thyroid, adrenal and gonads: Structure, function and their pathological disorders.

### **11- Metabolism of xenobiotics:**

- 1- Hydroxylation (role of cytochrome P-450)
- 2- Conjugation (glucuronic acid, sulfate and glutathione), acetylation and methylation.
- 3- Effects of xenobiotics.

### **12- Body fluids:**

- 1- Blood: plasma proteins, plasma enzymes, homeostasis and blood coagulation.
- 2- Urine: physical properties, normal and abnormal constituents.
- 3- Milk: physical properties, composition and colostrums.

4-Seminal fluid: spermatozoa, characters, constituents.

5-Cerebrospinal fluid: formation, functions, characters and composition.

6- Aqueous humor, sweat, tears, lymph, amniotic fluid and synovial fluid,

### **B) Practical classes:**

**1. Complete urine report.**

**2. Colorimetric measurement of:**

a- Serum glucose

b- Serum total proteins

c- Serum uric acid

d- Serum creatinine

e- Serum cholesterol

f- Serum albumin

**3. Case report studies applying the out-comes of previous parameters**

### **C) Tutorial classes:**

<b>Course</b>	<b>Subject</b>	<b>Method of tutorial</b>
Carbohydrate	<ul style="list-style-type: none"> <li>• Inborn error of metabolism</li> <li>• Cases</li> </ul>	*Teaching  * Case discussion
Lipids	*metabolism of eicosanoids  *clinical significance of sphingolipids	Teaching  Self learning

Proteins	<ul style="list-style-type: none"> <li>• Ammonia intoxication</li> <li>• Inborn error of metabolism</li> </ul>	Self learning Teaching
Integrated metabolism	<ul style="list-style-type: none"> <li>• Obesity</li> <li>• Diabetes mellitus diagnosis</li> <li>• Diabetes mellitus complications</li> </ul>	Self learning Teaching Case discussion
Haem metabolism	<ul style="list-style-type: none"> <li>• Porphyria</li> <li>• Jaundice</li> </ul>	Self learning Teaching
Purine	<ul style="list-style-type: none"> <li>• Hyperuricemia</li> <li>• Gout</li> </ul>	Self learning
Vitamins	<ul style="list-style-type: none"> <li>• Vitamins deficiency</li> </ul>	Self learning Case discussion
Hormones	<ul style="list-style-type: none"> <li>• Hyper and hypo thyroidism</li> <li>• Pituitary adenoma</li> </ul>	Case discussion Case discussion

#### **4. Teaching and learning methods:**

1- **Lectures;** 2 lectures/week ( 3hours/week)

The students are divided into two groups. Each group has a 3-hour lectures per week.

2- *Practical classes and tutorials:*

The students are divided into small groups. Each group has a 2-hour practical class per week. Students of each group are divided into 2 subgroups. Both subgroups rotate between tutorial class and practical class.

### Time plan:

Item	Time schedule	Duration	Total hours
Lectures	3 hours/week	30 weeks	75
Practical or Tutorial	2 hours/week	30 weeks	60
Totl			135

## 5. Student Assessment:

### A- Attendance Criteria:

The minimum acceptable practical and tutorial attendance is 75%. Students need to attend at least 75 % in order to attend for the final practical examination.

### B- Assessment tools

Tool	Purpose
Written examination	Assessment of knowledge, understanding and intellectual skills.
Oral examination	Assessment of knowledge and understanding
MCQs examination	Assessment of knowledge, understanding and intellectual skills.
Practical	Assessment of practical skills



## examination

### C- Assessment schedule:

#### 1. Periodic assessment tests:

Held 3 to 4 times for all students. Those who don't attend the test(s) for acceptable reason(s); their marks will be raised as a proportion from the total assessment tests score.

#### 2. Final examination:

At the end of the academic year (*May*) for all students. The exam is re-held in September for those who fail to pass the final exam or postpone it.

### D- Weighing of Assessment

Examination	Marks allocated
Assessment test (January & April) , attendance and student activities	30 (20 %)
<b>Final examination</b>	
Written	75 (50 %)
Oral	15 (6.7 %)
Practical	30 (13.3 %)
<b>Total</b>	<b>150 (100 %)</b>

### E- Grading System

1. The minimum passing score is 90 marks provided at least 22.5 marks are obtained in the final written examination.

2. Passing grades are: EXCELLENT > 85%, VERY GOOD 75- <85%, GOOD 65-<75% and Sufficient 60-<65%.

### **F) Examination description:**

Examination		Description
Assessment tests	Written	A 20 min written paper composed of MCQs, complete and true/false questions
Final examination	Written and MCQs	A 3-hour written paper composed of short essay, problem solving questions and 20 MCQ questions
	Practical	A 2- hours practical examination composed of two unknowns of carbohydrates and protein solution
	Oral	One oral examination station

### **VII. Learning and reference materials:**

#### **A) Assigned Textbooks:**

1- Harper's Illustrated Biochemistry: 30th Ed by Murray RK, Granner DK, Mayes PA, Rodwell VW, McGraw-Hill companies New York, 2015.

2- Lippincott's Reviews of Biochemistry, 6<sup>th</sup> edition by Champe PC, Harvey RA, Ferrier DR, Lippincott William & Wilkins London, 2014.

3- Text book of Biochemistry with Clinical Correlations 7<sup>th</sup> Ed, Devlin TM Ed, Wiley -Liss New York 2008

#### **B) Lectures handout:**



Lectures Notes for first year medical students by staff members of Department Medical Biochemistry, Faculty of Medicine, Menoufia University.

### **C) Manuals for practical:**

Practical Notes for first year medical students by staff members of Department of Medical Biochemistry, Faculty of Medicine, Menoufia University.

## **7- Facilities required for teaching and learning:**

- 1- Lecture Theatre: provided by the Faculty.**
- 2- Laboratory: laboratory facilities to perform the required experiments are available in the department.**

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

### **Course coordinator:**

**Name:** Maha Hamouda

**Signature**.....**Date** .....

### **Head of Department:**

**Name:** Maha Hamouda

**Signature**.....**Date**.....

.....



# Psychology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title:** Psychology

**Course code:** MFM-II 05

**Department offering the course:** Neuropsychiatry department

**Academic year\level:** Second year

**Date of specification:** 2006

**Date of specification revision:** 2017

**Date of approval by Department and Faculty council:** August 2017

**Total teaching hours:** lectures: 30 hrs total: 30 hours

## B-Professional information

### **I. AIM OF THE COURSE:**

The course provide the students with knowledge , skills and attitudes regarding basic psychology

### **2 - Intended learning outcome.**

#### **a- Knowledge and understanding:**

By the end of the course students should be able to

**a1.** Define each developmental field and their different stages

**a2.** Identify factors affecting positive and negative outcomes of each human developmental stage and apply them in different life stages.

**a3.** Recognize neurophysiology, neuro-biochemistry, neuroanatomy, neuropathology as an etiological basis for each mental cognitive functions

**a4.** Describe different mental functions in real life normality and pathological states

**a5.** Explain factors affecting different mental functions

**a6.** Describe different disorders of each mental function

### **b- Intellectual skills:**

By the end of the course, students will be able to :

**b1.** Establish a comprehensive psychological view in normal life situations

**b2.** Establish a comprehensive psychological view in pathological life situations

### **c- Practical and clinical skills:**

By the end of the course, students should be able to :

**c1.** Identify risk of aggression/violence in a variety of settings

**c2.** Identify stress sign and symptoms and how to deal with it personally and in general population

**c3.** Identify and monitor different defense mechanism and how to classify them

### **d- General and transferable skills:**

*By the end of the course, students should be able to:*

**d1.** Work effectively in a group in lab or during preparation of seminars.

**d2.** Deal with staff and co-staff members with respect regardless of degree or occupation.

d3. Search for a certain topic (research).

### **3- Course contents:**

#### **1-Lecturers: 1 hour for each**

- 1-developmental psychology
  - a-physical development (2 lecture)
  - b-cognitive development (2 lecture)
  - c- psychosocial development(2 lecture)
  - d-morality development (2 lecture)
  - e-attachment and development (2 lecture)
  - f- ego functions (2 lecture)
- 2- consciousness (2 lecture)
- 3-sleep (2 lecture)
- 4- perception
- 5- thinking
- 6-memory
- 7- learning
- 8- intelligence
- 9- motives
- 10-emotions
- 11- stress
- 12- frustration
- 13- aggression
- 14- defense mechanisms(2 lectures)
- 15- personality(2 lectures)

### **4- Teaching and learning methods:**

**Lectures:** One lecture weekly (1 hour) for 30 weeks

## **5- Student assessment:**

### **A- Attendance criteria:**

The minimal acceptable attendance is 75% as determined by faculty administration. Students who fail to attend that percentage of activities will not be allowed to apply for final written examination.

### **B- Assessment tools:**

- a. Written examination.
- a. Shock exam( MCQs, EMQs)

### **C- Assessment Schedule**

Final examination held at the end of academic year for all students

### **D- Weighing of assessment:**

Final written examination (50 marks)

### **E- Grading system:**

The minimum passing score is 30 marks.

### **Passing grades are as follows:**

**Excellent:** 85% and above

**Very good:** 75 % up to below 85 %

**Good:** 65% up to below 75 %

**Pass:** 60 % up to below 64%

### **F- Final Examination Description:**

Written exam

## **6- List of references:**

1- Essential books

Ahmed Okasha textbook

2- Text books:

Atkinson Psychology

## **7- Teaching facilities:**

Lecture halls in the faculty



**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinator:**

**Name:** Prof. Dr. Lamyaa Gamal Eldin Elhamrawy

**Signature**.....**Date** .....

**Head of Department:**

**Name:** Prof. Dr. Lamyaa Gamal Eldin Elhamrawy

**Signature**.....**Date**.....

.....



# Pathology

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Course title :** Pathology

**Code No:** MFM-III 01

**Department offering the course:** Pathology Department

**Programme(s) on which the course is given:** M.B.B.Ch

**Academic year:** Third year

**Date of specification :**2006

**Date of last specification revision :** 2017

**Date of approval by Department and Faculty Council :** August 2017

**Teaching hours:**

**Lecture:** 120 hours

**Practical:** 90 hours

**Tutorial:** 30 hours

**Total:** 240 hours

## B-Professional information

### **1 – Overall aims of course:**

- To familiarize students with the basic disease patterns including definition, etiology, morphologic changes in different organ system diseases in addition to their fate and complications.
- To provide students with essential knowledge for gross and microscopic changes in different diseases for understanding and interpreting pathological reports.

### **2 – Intended learning outcomes of course (ILOs)**

#### **a- Knowledge and Understanding:**

- a1. **Describe** different disease processes encountered in acute and chronic inflammation, cell injury, repair and intracellular accumulation with their etiology and pathogenesis.
- a2. **Explain** etiopathogenesis of circulatory disturbances and disorders of the immune system.
- a3. **Recognize** different disease processes encountered in different types of granulomas with their etiology and pathogenesis.
- a4. **Explain** etiopathogenesis of vitamin deficiencies.
- a5. **Describe** different disease processes encountered in disturbance of growth with induction of tumors including various basic types of tumors whether benign or malignant.
- a6. **Discuss** the etiopathogenesis of different disorders of cardiovascular system and blood vessels.
- a7. **Explain the** etiopathogenesis of different disorders of respiratory system.
- a8. **Recognize** etiopathogenesis of different disorders of gastrointestinal tract and liver.
- a9. **Describe** etiopathogenesis of different disorders of urinary, male and female genital systems
- a10. **Discuss** etiopathogenesis of different disorders of the breast
- a11. **Explain** etiopathogenesis of different disorders of bone
- a12. **Describe** etiopathogenesis of different disorders of lymph nodes
- a13. **Clarify** etiopathogenesis of different disorders of endocrine system
- a14. **Explain** etiopathogenesis of different disorders of central nervous system
- a15. **Describe and discuss** characteristic gross and microscopic pictures of different pathologic lesions within specific organ systems and the associated functional disturbances.
- a16. **Determine** the fate and complications of different disease processes.

### **b-Intellectual skills**

*By the end of the course, student would be able to:*

- b1.** Interpret a pathology report.
- b2.** Predict the diagnosis of different diseases based on the underlying gross and microscopic pictures.

### **c- Professional and practical skills**

*By the end of the course, student should be able to:*

- c1.** Use the light microscope efficiently to examine the pathological slides.
- c2.** Recognize gross pictures in pathological jars aiming at reaching the correct diagnosis.

### **d-General and transferable skills**

*By the end of this course, the student is expected to be able to:*

- d1.** Search for recent medical information to keep updated with the continued progress in medical sciences.
- d2.** Express freely and adequately themselves by improving descriptive capabilities and communication skills.
- d3.** Respond appropriately according to the seriousness of pathologic diagnosis in acceptable human manner.
- d4.** Deal respectfully with staff & co-staff members regardless of degree or occupation
- d5.** Recognize the scope and limits of their role as student, as well as the necessity to seek and apply collaboration with other workers.
- d6.** Maintain a professional image concerning behavior, dress & speech.
- d7.** Organize, plan and manage a demanding workload with good time management skills.
- d8.** Work in a team or separately in research and preparing a scientific topic.
- d9.** Present clearly and effectively a scientific topic in the practical class, a staff meeting or the yearly scientific day.

### 3. Course contents:-

	<b>Subjects</b>
<b>First Term</b>	<b>General Pathology</b>
1st week	Acute inflammation
2nd week	Chronic inflammation, repair and cell injury
3rd week	Intracellular accumulations, circulatory disturbances
4th week	Circulatory disturbances
5th week	Circulatory disturbances, immunity
6th week	Bacterial infection, T.B
7th week	Sarcoidosis, Actinomycosis
8th week	Leprosy, syphilis
9th week	Bilharziasis
10th week	Bilharziasis
11th week	Bilharziasis, Vitamins deficiency
12th week	Disturbances of growth, Introduction of tumor
13th week	Benign tumors, Malignant tumors
14th week	Malignant tumors
15th week	Lab diagnosis of cancer
<b>Second Term</b>	<b>Special Pathology</b>
1st week	Cardiovascular system
2nd week	Cardiovascular system, blood vessels
3rd week	Blood vessels, respiratory system
4th week	Respiratory system, blood
5th week	Respiratory system, gastrointestinal tract
6th week	Gastrointestinal tract
7th week	Liver
8th week	Urinary tract
9th week	Urinary, Male genital system
10th week	Female genital system
11th week	Breast
12th week	Bone
13th week	Lymph node
14th week	Endocrine system



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<b>15th week</b>	<b>Central nervous system</b>
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*Detailed description of the topics*

	Topic	ILO	Hours for lectures	Hours for tutorial and other small group or project	Hours for practical	Total no. of hours per semester / year
<b>First term</b>	<b>General pathology</b>		<b>60 h</b>	<b>15 h</b>	<b>45 h</b>	<b>120 hours</b>
<b>1st week</b>	Acute inflammation	a1,a15,a16, B1,B2, D1,D2,D3,D4	4 hours	1 H	3H	8 H
<b>2nd week</b>	Chronic inflammation, repair and cell injury	a1,a15,a16,	4 hours	1 H	3H	8 H
<b>3rd week</b>	Intracellular accumulations, circulatory disturbances	a1, a2, a15,a16, b1,b2,	4 hours	1 H	3H	8 H
<b>4th week</b>	Circulatory disturbances	a2, a15,a16, d1,d2,d3, d4	4 hours	1 H	3H	8 H
<b>5th week</b>	Circulatory disturbances, immunity	a2, a15,a16	4 hours	1 H	3H	8 H
<b>6th week</b>	Bacterial infection, T.B	a3, a15,a16, b1,b2	4 hours	1 H	3H	8 H
<b>7th week</b>	Sarcoidosis, Actinomycosis	a3, a15,a16, d1,d2,d3, d4	4 hours	1 H	3H	8 H
<b>8th week</b>	Leprosy, syphilis	a3, a15,a16	4 hours	1 H	3H	8 H

<b>9th week</b>	Bilharziasis	a3, a15,a16, b1,b2,	4 hours	1 H	3H	8 H
<b>10th week</b>	Bilharziasis	a3, a15,a16, d1,d2,d3 ,d4	4 hours	1 H	3H	8 H
<b>11th week</b>	Bilharziasis, Vitamins deficiency	a3,a4, a15,a16	4 hours	1 H	3H	8 H
<b>12th week</b>	Disturbances of growth, Introduction of tumor	a5, a15,a16, b1,b2,	4 hours	1 H	3H	8 H
<b>13th week</b>	Benign tumors, Malignant tumors	a5, a15,a16, d1,d2,d3 ,d4	4 hours	1 H	3H	8 H
<b>14 week</b>	Malignant tumors	a5, a15,a16,	4 hours	1 H	3H	8 H
<b>15 week</b>	Lab diagnosis of cancer	a5, a15,a16,	4 hours	1 H	3H	8 H
<b>Second Term</b>	<b>Special Pathology</b>		<b>60 Hours</b>	15 Hours	45 Hours	120 hours
<b>16th week</b>	Cardiovascular system	a6,a15,a 16,	4 hours	1 H	3H	8 H
<b>17th week</b>	Cardiovascular system, blood vessels	a6,a15,a 16, b1,b2,	4 hours	1 H	3H	8 H
<b>18th week</b>	Blood vessels, respiratory system	a6, a7, a15,a16, d1,d2,d3 ,d4	4 hours	1 H	3H	8 H
<b>19th</b>	Respiratory system,	a7, a15,a16	4 hours	1 H	3H	8 H



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<b>week</b>	blood					
<b>20<sup>th</sup> week</b>	Respiratory system, gastrointestinal tract	a7, a8, a15,a16, b1,b2,	4 hours	1 H	3H	8 H
<b>21<sup>th</sup> week</b>	Gastrointestinal tract	a8, a15,a16, d1,d2,d3 ,d4	4 hours	1 H	3H	8 H
<b>22<sup>th</sup> week</b>	Liver	a8, a15,a16,	4 hours	1 H	3H	8 H
<b>23<sup>th</sup> week</b>	Urinary tract	a9, a15,a16, b1,b2,	4 hours	1 H	3H	8 H
<b>24<sup>th</sup> week</b>	Urinary, Male genital system	a9, a15,a16, d1,d2,d3 ,d4	4 hours	1 H	3H	8 H
<b>25<sup>th</sup> week</b>	Female genital system	a9, a15,a16	4 hours	1 H	3H	8 H
<b>26<sup>th</sup> week</b>	Breast	a10, a15,a16, b1,b2,	4 hours	1 H	3H	8 H
<b>27<sup>th</sup> week</b>	Bone	a11, a15,a16, d1,d2,d3 ,d4	4 hours	1 H	3H	8 H
<b>28<sup>th</sup> week</b>	Lymph node	a12, a15,a16,	4 hours	1 H	3H	8 H
<b>29<sup>th</sup> week</b>	Endocrine system	a13, a15,a16, b1,b2,	4 hours	1 H	3H	8 H
<b>30<sup>th</sup> week</b>	Central nervous system	a9, a15,a16,	4 hours	1 H	3H	8 H

d1,d2,d3  
,d4

#### **4- Teaching and learning methods**

1- Formal Lectures.

2- Practical classes (Histopathology slide lab & Specimen museum): 71 H & E slides and 109 jars.

3- Research, related clinical cases, posters, machetes, atlases and project:

The students are divided into 49 groups. Each group takes the task of performing research and project under the supervision of one of the staff members and one of the assistant staff members. Each research contains the scientific material as well as 3 related clinical cases collected from the hospital. The cases include all clinical and laboratory data. In addition to that applied posters, atlases and machetes are asked for making creative students. The research will be discussed at the mid of March by the supervisors.

#### **5- Student Assessment:**

##### **A- Attendance criteria:**

The minimal acceptable attendance is 70%. Students who fail to attend that percentage of activities will not allowed to apply for final written examination.

##### **B- Assessment tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding and intellectual skills</b>
<b>Practical examination</b>	<b>Assessment of knowledge, understanding and practical skills in descriptive and diagnostic abilities</b>
<b>Oral examination</b>	<b>Assessment of knowledge, understanding ,</b>



	<b>attitude &amp; general skills.</b>
<b>Research and Project</b>	<b>To assess general and transferrable skills</b>
<b>Periodical examination</b>	<b>Assessment of knowledge, understanding and practical skills</b>

### **C- Assessment schedule:**

#### **1. Periodic Examination:**

Every three weeks, short examination in the start of practical lesson , and the exam include two chapters previously studies

Assessment 1 {written} .....	week .....	3.....
Assessment 2 {written} .....	Week .....	6.....
Assessment 3 {written} .....	Week .....	9.....
Assessment 4 {written} .....	week .....	12.....
Assessment 5 {practical} .....	week .....	15.....
Assessment 6 {written} .....	week .....	18.....
Assessment 7 {written} .....	week .....	21.....
Assessment 8 {written} .....	week .....	24.....
Assessment 9 {written} .....	week .....	27.....
Assessment 10 {practical} .....	week .....	30.....

#### **2. Two Block examination at January & April are held as MCQs.**

#### **3. Two practical examination, each one at the end of term**

#### **4. Final exam:** Held at the end of the academic year for all students as:

- Practical: for all students in one day.
- Two written papers each one for 2 hours duration.
- Oral exam.

### D- Weighing of Assessment:

Examination	Description	Marks
Periodical	Written	
	1- Periodic at practical classes	14
	2- First block	12
	3- Second block	12
	4- Research and project	7
	<b>5-attendance</b>	15
Final	Written	150
	Oral	20
	Practical	70
<b>Total</b>	<b>Total</b>	300

### E- Grading system:

- The **minimum passing score** is 180 marks = 60%, at least 45% in written exam to be obtained.

- Passing grades are as follows:

Excellent : 85% and above.

Very good : 75% up to below 85%.

Good : 65% up to below 75%.

Pass : 60% up to below 64%.

### F- Examination description:

Examination	Description
Periodical	Written 1- Periodic at practical classes 2- First block 3- Second block 4- Research and project

	<b>5-attendance</b>
Final	Written (3 hours)
	Oral
	Practical
<b>Total</b>	<b>Total</b>

## **6- List of References:**

1- Course notes

- Staff member's two books for general and systemic pathology.
  - Staff member's color atlas of microscopic pathology.
  - Staff member's color atlas of jars.
  - Slide boxes of 71 slides to be used during the academic year.
  - Jar museum

2- Essential books (text books)

Kumar, Cotran & Robbins: Recommended text book : Basic Pathology.

3- Recommended books

- Macfarlane, Reid & Callender: Illustrated Pathology Lectures.
- CDs available at the department on request.
- Diagnostic histopathology: Fletcher.

4- Periodicals, Web sites, etc

- <http://www.pathmax.com>
- <http://www.medlib.med.utah.edu/webpath/labs/labmenu.html>
- <http://www.medscape.com/pathologyhome>
- <http://www.qwumc.edu/dept/path/2f.htm>

## **7- Facilities required for teaching and learning:**

- 1- Lecture rooms in the 1st floor in the faculty.
- 2- Pathology labs the department (capacity of each is 25 students).
- 3- Audiovisual aids as: writing board & overhead projectors.

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**



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**Name:** Moshira Abd el Wahed

**Signature**.....**Date** .....

**Head of Department:**

**Name:** Prof. Dr. Hayam Abdel samie Ayad

**Signature**.....**Date**.....

.....

# Pharmacology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title :** Pharmacology

**Code No:** MFM-III 02

**Department offering the course:** Department of clinical pharmacology

**Programme(s) on which the course is given:** M.B.B.Ch

**Academic year:** Third year

**Date of specification :** 2006

**Date of last specification revision :** /2017

**Date of approval by Department and Faculty Council :** August 2017

**Teaching hours :**

**Lectures:** 120 hours      **Practical / small group sessions:** 60 hours.  
**Total:** 180 hours\

## B-Professional information

### **I. Overall Aims of Course**

**The aim is to prepare a general practitioner**

- a) Enable the student to **understand** the pharmacological basis of using drugs including mechanism of action, effects , indications , adverse effects , contraindications and interactions , as well as their pharmacokinetics
- b) Develop **skills** of writing safe prescription for different types of diseases and avoid unnecessary details and limit the drug groups to those which meet the health needs of the population in the light of the common health problems of the community , thus fulfilling

the needs of the 1<sup>st</sup> level of triad of health care, namely the general practitioner

## **2. Intended Learning Outcomes (ILOs)**

*By the end of the course , the student should be able to :*

### **a-Knowledge and understanding**

- a1.** Describe the general principles of drugs and mode of action , so that he will understand the rational approach to drug therapy.
- a2.** Explain the behavior of different drugs in the body science their administration until complete elimination , in order to choose the proper method of administration and the preferable dosage schedule according to the patient condition.
- a3.** Describe the different adverse reactions that could result from the use of different drugs and the mechanism of these reactions. This will help in prevention , early diagnosis and counteracting these undesirable effects.
- a4.** Mention the limitations to the use of drugs such as contraindications and drug interactions.
- a5.** Describe the variations during drug application with regard to age , sex , and genetic related variations that affect response to drugs.
- a6.** Outline the classification, indications and mechanism of action of dugs acting on autonomic nervous System.
- a7.** Describe the types, indications and mechanism of action of dugs acting on the eye.
- a8.** Identify the classification, indications and mechanism of action of autacoids
- a9.** Outline different families of dugs acting on Cardiovascular system with their indications and mechanism of action .
- a10.** Describe the classification, indications, mechanism of action of dugs acting on the kidney.

- a11. Discuss the types of different drugs affecting anemia and hemostasis with their indications and mechanism of action. the pharmacology of blood
- a12. Outline different families of chemotherapeutic drugs with their indications and mechanism of action.
- a13. Describe the pharmacology of drugs acting on central nervous system.
- a14. Discuss the pharmacology of endocrine drugs
- a15. Recognize the pharmacology of drugs acting on GIT
- a16. Describe the pharmacology of drugs acting on respiratory system
- a17. Outline the pharmacology of vitamins
- a18. Explain the basics of dermatologic pharmacology
- a19. Describe the basics of gene therapy
- a20. Outline the basics of immunopharmacology
- a21. Identify the problem of non-medical use of drugs and chemicals (drug abuse) and know how to avoid and manage the users.

**b- Intellectual skills:**

- b1. Select the proper drug(s) to treat each particular patient putting into consideration the appropriate route of administration , the bioavailability , pharmacokinetics , age , sex , associated diseases, habits, compliance , socioeconomic status , environmental conditions , and ethical values.
- b2. Judge the dose of different drugs simultaneously administered and to avoid any combination that could result in serious reactions.
- b3. Design a course of therapy that cost effective.

**c- Practical skills:**

- c1. Test the response of isolated and intact preparations (of animals) to some selected drugs.
- c2. Perform laboratory experiments to identify the site of action of unknown drugs.

**c3.** Employ experiments that test the response of isolated and intact preparations (of animals) to some selected drugs

**c4.** Prescribe a prescription on a rational base for selected important diseases considering patient age, weight and health status.

**d- General and transferable skills**

**d1.** Perform self learning and show a strong commitment to it.

**d2.** Use current I.T. for appropriate drug database to reach information about a specific medication.

**d3.** Evaluate his own and others work through construction feedback

**d4.** Effectively manage time and resources and set priorities.

**3- Course Contents:**

**A) Lectures:**

Topics		Lecture	Practical	Tutorial	Total	%
1-General Pharmacology	a1,a2.a3,a4, a5,b1,b2, b3,c4	<b>10</b>	<b>4</b>	<b>4</b>	<b>18</b>	<b>10.00</b>
2-Autonomic Nervous System	a1,a2.a3,a4, a5,a6, b1,b2, b3, ,C1, c2,c3,c4	<b>14</b>	<b>6</b>	-	<b>20</b>	<b>11.11</b>
3-Ocular Pharmacology	a1,a2.a3,a4, a5,a7,b1,b2,b 3,C1,C2,C3, c4	<b>2</b>	<b>2</b>	-	<b>20</b>	<b>02.22</b>
4-Autacoids	a1,a2.a3,a4, a5,a8, b1,b2,b4,c1,C 2, C3,C4	<b>4</b>	-	-	<b>4</b>	<b>02.22</b>
5-Cardiovascular Pharmacology	a1,a2.a3,a4,a 5,a9,b1,b2,b3 ,c1,C2, c3,c4	<b>12</b>	<b>6</b>	<b>6</b>	<b>24</b>	<b>13.33</b>
6-Renal Pharmacology	a1,a2.a3,a4,a 5,a10,b1,b2,	<b>4</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>04.44</b>



	b3,C4					
7- Pharmacology of Blood	a1,a2.a3,a4, a5, a11,b1,b2, b3,C4	<b>4</b>	<b>2</b>	<b>-</b>	<b>6</b>	<b>03.33</b>
8- Chemotherapeutic drugs	a1,a2.a3,a4, a5,a12,b1,b2, b3,C4	<b>18</b>	<b>-</b>	<b>-</b>	<b>18</b>	<b>10.00</b>
9-Drugs act in CNS	a1,a2.a3,a4, a5,a13,b1,b2, b3,C4	<b>20</b>	<b>10</b>	<b>6</b>	<b>36</b>	<b>03.33</b>
10-Endocrine drugs	a1,a2.a3,a4, a5,a14,b1,b2, b3,c4	<b>10</b>	<b>-</b>	<b>4</b>	<b>14</b>	<b>07.77</b>
11-Pharmacology of GIT	a1,a2.a3,a4, a5,a15,b1,b2, b3,c4	<b>6</b>	<b>-</b>	<b>2</b>	<b>8</b>	<b>20.00</b>
12-Respiratory system	a1,a2.a3,a4, a5,a16,b1,b2, b3,c4	<b>4</b>	<b>-</b>	<b>2</b>	<b>6</b>	<b>4.44</b>
13-Vitamins	a1,a2.a3,a4, a5,a17,b1,b2, b3,C4	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>1.11</b>
14-Dermatologic Pharmacology	a1,a2.a3,a4, a5,a18,b1,b2, b3,C4	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>1.11</b>
15-Gene therapy	a1,a2.a3,a4, a5,a19,b1,b2, b3,C4	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>0.55</b>
16-Immunopharmacology	a1,a2.a3,a4, a5,a20,b1,b2, b3,C4	<b>1</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>0.55</b>
17-Drug abuse	a21	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>1.11</b>
18-Drug interaction	a4, b2.	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>1.11</b>

19-Essential drugs	a1,a2.a3,a4, a5,a6,b1,b2, b3,C4,d1, d2,d3,d4	1	-	-	1	0.55
20-Rational use of drugs	a1,a2.a3, b1, C4	1	-	-	1	0.55
21-Prescription writing	a1,a2.a3,a4, a5,a6,b1,b2, b3,b4,C4,d1, d2,d3,d4	-	-	2	2	1.11
<b>Total</b>		<b>120</b>	<b>32</b>	<b>28</b>	<b>180</b>	<b>100</b>

**Detailed description of the topics:**

**1-General pharmacology:**

Nature and source of drugs , dosage forms of drugs ,routes of drug administration , evaluation of new drugs , adverse drug reactions , pharmacodynamics , pharmacokinetics , drugs at the extreme of age.

**2-Autonomic Nervous System:**

Sympathomimetics , sympathetic depressants, parasympathomimetics , drugs acting on the neuromuscular junction , drugs acting on autonomic ganglia.

**3-Ocular pharmacology:**

Drugs acting on the eye and treatment of glaucoma.

**4-Autacoids:**

Histamine and antihistaminics , serotonin and its antagonists , eicosanoids , angiotensin and kallikerin-kinin system.

**5-Cardiovascular pharmacology:**

Treatment of heart failure, antihypertensive drugs ,drug therapy of angina pectoris , treatment of shock , antiarrhythmic drugs , drug therapy of peripheral vascular disease.

### **6-Renal pharmacology:**

Diuretics , alteration of urinary pH.

### **7-Pharmacology of blood:**

Treatment of anaemias , coagulants and anticoagulants ,drugs affecting the fibrinolytic system , drugs affecting platelet activity , lipid lowering drugs , intravenous fluids , total parenteral nutrition.

### **8-Chemotherapeutic agents:**

Classification of antimicrobials , Beta- lactam antibiotics , aminoglycosides , tetracyclines , chloramphenicol, macrolides ,quinolones , sulphonamides , chemoprophylaxis , drug therapy of tuberculosis and leprosy , antifungal and antiviral drugs , cancer chemotherapy , topical disinfectant and antiseptics , chemotherapy of malaria , chemotherapy of amebiasis , antiprotozoal and antihelminthics.

### **9-Drugs act in the CNS:**

Central neurotransmitters, sedative-hypnotics , antiepileptic drugs, analgesic drugs , local and general anaesthetics , antipsychotics, antidepressants , antimanic drugs and central nervous stimulants.

### **10-Respiratory system:**

Bronchodilators , expectorants , mucolytics , antitussive , therapeutic gases.

### **11- Endocrine drugs:**

Classification of hormones, anterior and posterior pituitary hormones , insulin and oral antidiabetic drugs , thyroxin and antithyroid drugs ,hormonal regulation of calcium homeostasis , corticosteroids , sex hormones and anabolic steroids.

## 12-Pharmacology of GIT:

Drug therapy of peptic ulcer , emetics and antiemetics , prokinetic drugs , purgatives and antidiarrheal drugs.

## 13- Vitamins.

## 14- Dermatologic pharmacology:

Percutaneous absorption of drugs , keratolytics ,counterirritants , antipruritics , drugs affecting skin pigmentation , drug therapy of acne vulgaris , drug therapy of psoriasis , retinoids.

## 15-Gene therapy:

Methods of gene delivery , concept of gene therapy and indications of gene therapy.

## 16-Immunopharmacology:

Immunomodulating agents , immunosuppressive agents.

## 17-Drug abuse:

Drug dependence , types of drug dependence , general lines of treatment of drug dependence.

## 18-Drug-interaction.

## 19-Essential drugs:

Advantage of essential drug list.

## 20-Rational use of drugs:

Definition , areas where care is needed while prescribing.

## 21- Prescription writing.

### B) Practical pharmacology (32 hours)

1	Dosage forms of drugs	1
2	Routes of drug administration	1
3	Drug absorption	1



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4	Drug excretion	1
5	Drugs and isolated intestine	4
6	Drugs and isolated rectus abdominis muscle.	2
7	Drugs and the eye	2
8	Drugs and isolated heart	4
9	Action of drugs on blood pressure of rats	2
10	Onset , potency , duration of diuretics	2
11	Anticoagulant drugs	2
12	Oil/water partition coefficient	2
13	General anaesthetics	2
14	Hypnotics and assessment of their potency	2
15	Tests of analgesics	2
16	Antiparkinsonian activity of drugs	2

#### **-C) Tutorials (28 hours)**

The course designed in the form of patient management problems(PMP) to study clinical pharmacology.

1	Dosage calculation for pediatrics	2
2	Dosage calculation for in renal diseases	2
3	Drug dosage calculation (drug concentration)	2
4	Congestive heart failure	2
5	Angina pectoris	2
6	Hypertension	2
7	Urinary tract infection	2
8	Gout	2
9	Epilepsy	2
10	Rheumatoid arthritis	2
11	Bronchial asthma	2

12	Hyperthyroidism	2
13	Diabetes mellitus	2
14	How to write prescription	2

#### 4 – Teaching and learning methods

##### a) Methods used:

- Formal lectures : to gain knowledge of course contents (2 groups of students).
- Practical (laboratory demonstrations) : to demonstrate major drug actions in animals (each group contains 25 students)
- Tutorial (small group discussion): aim to contact and assist students to discuss clinical problems (PMP)

Table 1 : Teaching methods and Ilos

##### Ilos

Method	A1	a2	a3	a4	a5	a6- a2 1	b1	b2	b3	b4	c1	c2	c3	c4	d1	d2	d3	d4
Lectures	*	*	*	*	*	*	*	*	*	*								
Practical											*	*	*	*	*			*
Tutorial	*	*	*	*	*	*	*	*	*						*	*	*	*

##### b ) methods for disabled students: not available

##### c) Teaching plan:

1- formal lecture : the lecture halls (in the building of the faculty of medicine) 4 hours / week for 30 weeks (2 days / week)

2- practical and tutorial classes : students are divided into 4 groups, which are subdivided into 3 small groups each attends 2 hours/week for 16 weeks in the laboratories of

the department small group discussion for teaching clinical pharmacology 2 hours / week for 14 weeks.

Item	Time schedule	Total hours
<b>-Lectures</b>	3 days per week	<b>120 hrs</b>
-	2 hours for 1 <sup>st</sup> day                      2 x 30	
	1 hour for 2 <sup>nd</sup> day                        1 x 30	
	1 hour for 3 <sup>rd</sup> day                        1 x 30	
<b>- Practical and Tutorials</b>	Once/week x 2 hours                      2 x 30	<b>60 hrs</b>
<b>Total</b>		<b>180 hrs</b>

## **5- Student Assessment**

### **A- Attendance criteria:**

Students need to attend at least 75% of the practical and tutorial classes to sit for the final exam (shown in the log book in which the tutor record his assessment for each student according to his participation in the class).

### **B- Assessment tools:**

TOOL	PURPOSE
Written exams ( 2 papers in 2 separate days)	Assessment of knowledge, understanding and intellectual skills
Practical and clinical examination	-To assess practical, intellectual skills ,prescription writing
Oral examination	Assessment of knowledge, understanding , attitude & general skills and. rational of use

	of particular drug for each patient
<b>Periodical examination</b>	<b>Assessment of knowledge by sheets examinations including short questions &amp; MCQ.</b>

### Assessment methods and aimed ILOs

Assessment methods and aimed Ilos

Aimed Ilos

Method	a1	a2	a3	a4	a5	a6-a21	b1	b2	b3	b4	c1	c2	c3	c4	d1	d2	d3	d4
1. Written exam	*	*	*	*	*	*	*	*	*	*								
2. Oral exam	*	*	*	*	*	*	*	*	*	*								
3. Practical exam											*	*	*	*	*	*	*	*
4. OSPE exam	*	*	*	*			*	*	*									

### C- Assessment schedule:

- 1- Periodic assessment : 3 assessments through the year
- 2- Final exams : at the end of the year
  - a- Written (2 papers, 3 hours each in two days)
  - b- Practical and clinical pharmacology exam, prescription.
  - c- Oral in 2 sessions

### D- Weighing of Assessment:

Exam	Marks	Value
periodic exams (3 exams)	50 marks	16.67%
presentation of log book of Practical and clinical classes	10 marks	3.33%
final written exam	150 marks	50%
practical and clinical exam (MCQs)	50 marks	16.67%



oral exam in 2 sessions	40 marks	13.33%
Total	300 marks	100%

### E- Grading system:

• The **minimum passing score** is 180 marks = 60%, at least 45 marks in written exam to be obtained.

• Passing grades are as follows:

Excellent : 85% and above.

Very good : 75% up to below 85%.

Good : 65% up to below 75%.

Pass : 60% up to below 64%.

### F- FINAL EXAMINATION DESCRIPTION:

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Two papers/Three hours each paper: a-Short essay b-Applied analytical and reasoning questions	150
Practical and clinical examination	a-MCQs b-Full in blanks c-Solving problems (PMP)	50
Oral Final examination	two session	40

## 6- Learning and reference materials

### A) Basic materials

#### 1- Textbooks:

- Basic and clinical pharmacology by B.G. Katzung
- Clinical pharmacology by D.R. Laurence and P.N.Bennett
- Pharmacology and therapeutic By Prof. Dr. Adel Hussein Omar
- Mannuals for practical classes

### **B) Suggested materials**

- Computer aided learning materials e.g. CDs
- Medline web site

## **7- Facilities required for Teaching and Learning:**

Facilities used for teaching this course include :

### **1-Lecture halls:**

At the building of the halls , writing board , over head projector and data show are available.

### **2- Laboratory classes:**

Laboratories in the department where facilities for these types of experiments are available (animals, organ bathes , recording graphs and chemicals).

### **3-Tutorial classes:**

Small hall in the department with writing board , over head projector and data show are available.

### **4-Library:**

General library in the building of faculty of medicine.



**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Safa Reyad Elfiky

**Signature**.....**Date** .....

**Head of Department:**

**Name:** Prof. Dr. Maha mohammed Elbatsh

**Signature**.....**Date**.....

# Microbiology and Immunology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title** : Microbiology and Immunology

**Code No:** MFM-III 03

**Department offering the course** : Department of Microbiology and Immunology

**Program on which the course is given** : M.B.B.Ch Program

**Academic year** : 3<sup>rd</sup> Year

**Date of specification: 2006**

**Date of last specification revision : 2017**

**Date of approval by Department and Faculty Council: August 2017**

**Teaching hours:**

**Lecture: 90 hours Practical/Tutorial: 60 hours Total: 150 hours**

## B-Professional information

### **1-Overall aims of the course**

- a- To educate students about the basic features of general bacteriology, virology and mycology and to provide students with an understanding of the immune system, its protective functions and its role in the patho-physiology of infectious and non-infectious diseases.
- b- To familiarize students with the common infections and diseases of medical importance, their microbial causes, as well as laboratory diagnosis, treatment, prevention and control of such diseases.
- c- To enable the students to practice the principles of sterilization and infection control

## **2- Intended learning outcomes (ILOs)**

### **a- Knowledge and understanding**

*By the end of the course, students should be able to:*

- a1.** Describe general bacterial physiology with morphology, culture, antigenic structure and virulence factors of specific bacterial agents of medical importance,
- a2.** Recognize general viral physiology with morphology, culture, antigenic structure and virulence factors of specific viral agents of medical importance.
- a3. Outline** general mycologic physiology with morphology, culture, antigenic structure and virulence factors of specific fungal agents of medical importance
- a4.** Explain the host parasite relationship and microbial pathogens
- a5.** Explain the physiology of the immune system, its beneficial role, as well as its detrimental role in hypersensitivity, autoimmunity and transplant rejection
- a6.** Recognize the most important infectious clinical conditions and outline the diagnosis, treatment, prevention and control of the most likely organisms causing such diseases.
- a7.** Describe the most important methods of decontamination and principles of infection control.
- a8.** Describe the basics of antimicrobial uses and resistance
- a9.** Mention the impact of molecular technology in microbiology and immunology

### **b- Intellectual skills**

*By the end of the course, students should be able to:*

- b1.** Interpret microbiological, immunological and molecular laboratory test reports
- b2.** Formulate a systematic approach for laboratory diagnosis of common infectious clinical conditions and select the most appropriate and cost-effective tool leading to the identification of the causative organism.
- b3.** Evaluate according to evidence the causal relationship of microbes and diseases
- b4.** Categorize a microorganism as a bacterium, virus or fungus according to standard taxonomy

**b5.** Appreciate the danger of handling and use of infectious agents on community and environment as a part of their ethical heritage

### **c- Professional and practical skills**

*By the end of the course, students should be able to:*

- c1.** Identify medically important bacteria based on microscopic examination of stained preparations.
- c2.** Perform a Gram stain and a Zeihl-Neelsen stain and identify, according to morphology and characteristics, stained preparations.
- c3.** Examine and identify culture media and biochemical tests commonly used for bacterial identification and distinguish positive and negative results.
- c4.** Perform hand wash and control of steam sterilization.

### **d- General skills**

*By the end of the course, students should be able to:*

- d1.** Write reports and essay on the different scientific topics in a clear and concise manner.
- d2.** Present clearly and effectively a scientific topic in scientific meetings.
- d3.** Work in groups and team
- d4.** Use computer and internet to extract information and knowledge

### **3- Course contents**

Topic	Course ILOs	No. of Hours/year	Lecture	Practical/Tutorial
General Bacteriology	A1-A4-A8-A9-B3-C4	30	18	12
Immunology	A5-	20	12	8
Systemic Bacteriology	A1-A6-C1-C2-C3	65	35	30
General Virology	A2-B4	4	4	-
Systemic Virology	A2	10	10	-
General	A3-B4	8	4	4

Mycology				
Systemic Mycology	A3, A6-B4	3	3	-
Applied Microbiology	A7-B1-B2-B5-D1-D2-D3-D4	10	4	6
Total		150	90	60

#### **4- Teaching and learning Methods**

- 1- Lectures
- 2- Small group discussion sessions
- 3- Practical classes
- 4- Micro assignment and reports
- 5- Problem based learning
- 6- Tutorials
- 7- Posters & researches

#### **5- Student Assessment:**

##### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

##### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge and understanding and intellectual skills (a1-a8, b1-b6)</b>
<b>Practical examination</b>	<b>Assessment of and intellectual skills and practical skills (b1-b6, c1-c4)</b>
<b>Oral examination</b>	<b>Assessment of knowledge and</b>

	<b>understanding outcomes, intellectual skills, and general skills (a1-a8, b1-b7, d1-d5)</b>
<b>Quiz</b>	<b>Assessment of intellectual skills (b1-b6)</b>

### **C- Assessment schedule:**

**Assessment 1:** Course assignment, class activity , Micro reports and quiz

**Assessment 2:** Final practical examination by the end of the year

**Assessment 3:** Final written examination by the end of the year

**Assessment 4;** Final oral examination by the end of the year

### **D- Weighting of assessments**

<b>EXAMINATION</b>	<b>MARKS ALLOCATED</b>
Course assignment, class activity , Micro reports and quiz	40 (20%)
Final examination:	
Written	100 marks (50%)
Practical	40 marks (20%)
Oral	20 marks (10%)
Total	200

### **E: Grading system:**

The minimum passing score is 120 marks provided that at least 30 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **F. Final Examination Description:**

<b>EXAMINATION</b>	<b>DESCRIPTION</b>	<b>MARKS</b>
--------------------	--------------------	--------------



Final Written examination	Three hours written paper	100
Final Practical examination	• Stations for identification of microbiological slides and tools and answering questions about them	40
Oral Final examination	One session	20

### **6- List of references:**

- 1- Lectures
- 2- El mishad AM. Manual of Medical Microbiology & Immunology, vol. I, 7<sup>th</sup> edition 2008, El-Ahram Press, Egypt.
- 3- El mishad AM. Manual of Medical Microbiology & Immunology, vol. II, 7<sup>th</sup> edition 2010, El-Ahram Press, Egypt.
- 4- El mishad AM. Manual of Practical Microbiology & Immunology, 9<sup>th</sup> edition 2010, El-Ahram Press, Egypt.
- 5- Jawetz EM, Adelberg IL. Review of medical microbiology 27<sup>th</sup> edition 2016, Lange.
- 6- David G, Richard CB, John FP, Mike B. Medical microbiology. Aguide to microbial infections Palliogenesis, immunity, laboratory diagnosis and control Ed, 18th edition , 2012.
- 7- periodicals and web sites of Microbiology and Immunology, <http://www.med-ed-online.org/>

### **7- Facilities required for teaching and learning**

- 1- Overhead projectors
- 2- Computers
- 3- Microscope slides
- 4- Laboratories instruments
- 5- Lecture halls at the faculty
- 6- Laboratories at the department



**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Prof. Dr. Mabrouk Mahmoud Ghonaim

**Signature.....Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Mabrouk Mahmoud Ghonaim

**Signature.....Date.....**

# Parasitology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title: Medical Parasitology**

**Code: MFM- III 04**

**Department offering the course: Parasitology Department**

**Programme(s) on which the course is given: MBChB.**

**Academic year/level: Third academic year.**

**Date of specification: 2006**

**Date of last specification revision : 2017**

**Date of approval by Departmental and Faculty Council: August 2017**

**Credit/taught hours:**

**Lecture: 54      Tutorial & Practical: 60      Field training: 6      Total : 120**

## Professional Information

### **1 – Overall aims of course:**

- a. To supply the student with biological, epidemiological and ecological information about the most important parasite to human.
- b. To make the student understand the pathogenesis, clinical presentations and management of these parasitic diseases.

### **2 – Intended learning outcomes of course (ILOs):**

#### **a-Knowledge and Understanding:**

*By the end of the course the student should be able to:*

- a1. Discuss the basic types of parasites of medical importance with their pathogenesis and life cycle.

- a2. Describe the demography, pathogenesis, diagnosis, treatment and prevention of parasites of small intestine.
- a3. Identify the demography, pathogenesis, diagnosis, treatment and prevention of parasites of large intestine.
- a4. Outline the demography, pathogenesis, diagnosis, treatment and prevention of parasites of liver and biliary tract.
- a5. Recognize the demography, pathogenesis, diagnosis, treatment and prevention of parasites of respiratory system.
- a6. Outline the demography, pathogenesis, diagnosis, treatment and prevention of parasites of subcutaneous tissue and skin.
- a7. Describe the demography, pathogenesis, diagnosis, treatment and prevention of parasites of blood, lymphatics and mononuclear phagocytic system.
- a8. Identify the demography, pathogenesis, diagnosis, treatment and prevention parasites of muscles.
- a9. Outline the demography, pathogenesis, diagnosis, treatment and prevention of parasites of genitourinary tract.
- a10. Describe the common arthropods of medical interest and explain their medical importance and the methods of combating.

### **b-Intellectual skills**

- b1. Integrate basic information about life cycles, clinical picture and complications to point out the diagnostic test of choice to confirm or exclude the provisional diagnosis.
- b2. Analyze clinical data to select the most appropriate diagnosis from differential diagnosis.
- b3. Give a differential diagnosis for each parasitic disease.

### **c-Professional and practical skills:**

- c1. Draw parasites in their different stages specially the diagnostic and infective stages through examination of microscopic slides.
- c2. Identify some parasites or their stages by naked eyes (Jars).
- c3. Examine mounted slides or boxes to identify the most important arthropods of medical interest.

### **d- General and transferable skills**

- d1. Use and improve their computing skills, internet search and self learning.

- d2. Apply effective communication either written or oral.
- d3. Work in groups.
- d4. Deal respectively with teaching staff, colleagues and laboratory technicians.
- d5. Recognize the scope and limits of their role as students and respect time factor and dates.
- d6. Apply a professional image concerning behavior, dress and speech.

### 3. Course contents:-

#### a. First semester:

Topics	ILOs covered	No. of hours per week	Total no. of hours per semester / year	Hour s for lectu res	Hours for practic al	Tuturia l
<b>Introduction</b> Introduction to medical parasitology (Trematoda-cestoidea-nematoda-medical protozoology)	a1 , b1, b2, c1,c2,c3	4	4	2	2	
Classification of medically important parasites of small intestine <b>Intestinal Trematodes</b> (fluke Heterophyes heterophyes) <b>Intestinal Cestodes</b> (Diphylobothrium latum-Taenia saginata-Taenia solium)	a2, b1, b2, c1,c2,c3	4	4	2	2	
<b>Sparagnosis</b>	a2,b1,2c1,2 ,3,d1,2,3,4,	2				2

	5,6					
Hymenolepis nana Hymenolepis diminuta Dipylidium caninum Multiceps multiceps	a2, b1, b2, c1,c2,c3	4	4	2	2	
<b>Nematodes of small intestine</b> Ascaris lumbricoides	a2, b1, b2, c1,c2,c3	4	4	2	2	
<b>Visceral larva migrans</b>	a2,b1,2c1,2 ,3,d1,2,3,4, 5,6	2				2
<b>Hookworms</b> Ancylostoma deudenale Necator americanus	a2, b1, b2, c1,c2,c3	4	4	2	2	
<b>Cutaneous larva migrans</b>	a2,b1,2c1,2 ,3,d1,2,3,4, 5,6	2				2
Trichenella spiralis	a2, b1, b2, c1,c2,c3	4	4	2	2	
Trichostrongylus colibriformis Capillaria philippinensis	a2, b1, b2, c1,c2,c3	4	4	2	2	
<b>Eccinococosis</b>	a2,b1,2c1,2 ,3,d1,2,3,4, 5,6	2				2
<b>Hydatidosis</b>	a2,b1,2c1,2 ,3,d1,2,3,4, 5,6	2				2
<b>Coccidia</b> Intestinal coccidian Isospora belli Sarcocystis (intestinal species)	a2, b1, b2, c1,c2,c3	4	4	2	2	
<b>Prasites of large intestine</b> <b>Nematodes of large intestine</b>	a3, b1, b2,	4	4	2	2	



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(Trichuris trichura- Enterobius vermicularis)	c1,c2,c3					
<b>Class rhizopoda</b> (Entameba histolytica- Coprozoic protozoa- Blastocystis hominis)	a3, b1, b2, c1,c2,c3	4	4	2	2	
<b>Class:Ciliates</b> (Blantidium coli) <b>Parasites of liver and biliary tract</b> (Fasciola gigantica- fasciola hepatica)	a3, b1, b2, c1,c2,c3	4	4	2	2	
<b>Parasites of respiratory system</b> <b>Lung fluke</b> (Paragonimus westermani)	a4, b1, b2, c1,c2,c3	4	4	2	2	
<b>Parasites of subcutaneous tissue and skin</b> <b>Extra intestinal adult nematodes</b> (dracunculus medinensis- loa loa- onchocercus volvulus)	a5, b1, b2, c1,c2,c3	4	4	2	2	
<b>Prasites of blood, lymphatics and mononuclear phagocytic system</b> <b>Blood flukes</b> SChistosomes	a6, b1, b2, c1,c2,c3	4	4	2	2	
Filarial worms Wucheriria bancrofti Brugia malayi	a7, b1, b2, c1,c2,c3	4	4	2	2	
Blood flagellates Genus Leishmania (Visceral and cutaneous leishmaniasis)	a7, b1, b2, c1,c2,c3	4	4	2	2	
	<b>Second semester</b>					



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Trypanosoma(Trypanosoma gambiense- T. rhodesiense- T. cruzi)	a7, b1, b2, c1,c2,c3	4	4	2	2	
<b>Class:Sporozoa</b> Plasmodium(Malaria parasites)	a7, b1, b2, c1,c2,c3	4	4	2	2	
<b>Blood coccidia (Babesia)</b>	a7, b1, b2, c1,c2,c3	4	4	2	2	
<b>Toxoplasmosis</b>	a7,b1,2c1,2,3,d1,2,3,4,5,6	2				2
<b>Parasites of muscles(muscular sarcocystosis)</b> <b>Prasites of genitourinary tract (Trichomonas vaginalis)</b> Multiceps multiceps	a8, a9, b1, b2, c1,c2,c3	4	4	2	2	
<b>Cysticercosis</b>	a8,b1,2c1,2,3,d1,2,3,4,5,6	2				2
Cases of helminthes	a1, a2, a3, a4, a5, a6, a7, a8, a9,C5, d1,2,3/	4	4	2	2	
Arthropda (Mosquitoes and sand fly)	a10	4	4	2	2	
Muscidae + Calliphoridae	a10	4	4	2	2	
<b>Myiasis</b>	a10,b1,2c1,2,3,d1,2,3,4,5,6	2				2
Fleas + Lice + Bugs	a10	4	4	2	2	
Periodic examination 3		2	2			



Ticks + scorpion	a10	4	4	2	2	
Mites + Cyclops	a10	4	4	2	2	

## **4- Teaching and learning methods**

### **1. Formal lectures:**

For teaching the theoretical course. The students are divided into two groups in different days and the same topic is given to each group in a lecture of two hours duration each week for 30 weeks.

### **2. Practical classes:**

The students are divided into 4 groups, each group is divided into 2 subgroups. Each attends 2h/ week for 30 weeks in the laboratories of the department.

### **3. Research project :**

The students are asked to search in the internet databases and the library to make learning aiding facilities or to present their scientific researches in student conference, in which they can also present their talents in different kinds of arts in order to encourage them for creative thinking, making search plan, self learning and working in groups. They conduct searches on some parasites which cause tropical or subtropical problems stressing on those cause impact upon health in the surrounding community.

### **4. Class activities:**

Done during practical class in the form of sub grouping of students and each subgroup is in responsibility of staff and assistant staff members for close follow up of the student practical achievement, discussing them in the most important items concerning the topics studied, also drawing in the practical book.

## **5- Student assessment methods**

### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### **B. Assessment Tools:**

<b><u>Assessment method</u></b>	<b><u>ILO covered</u></b>
4.1. Written examinations	Knowledge and understanding, and intellectual skills
4.2. Oral examination	Knowledge and understanding, and intellectual and general skills of d2, d4-d6
4.3. Practical examination	Professional and practical skills
4.4. Research project	general skills
4.5. Attendance criteria to assess	d6
4.6. Other semester works (practical books)	General skills
4.7. Quiz during practical classes	Knowledge and intellectual skills

### **C- Assessment schedule:**

Assessment 1: First periodical written examination at week 12

Assessment 2: Second periodical written examination at Week 28.

Assessment 3: Project presentation at Week 18

Assessment 4 : Practical book assessment at week 14 and 25.

Assessment 5 : Final examination at week 32

### D- Weighting of assessments

<u>Type</u>	<u>Percentage</u>	<u>Marks</u>
Mid-term examination:	<u>0%</u>	<u>0</u>
Final-term written examination	<u>50%</u>	<u>75</u>
Oral examination	<u>10%</u>	<u>15</u>
Practical examination	<u>20%</u>	<u>30</u>
<b>Semester work</b>	<u>20%</u>	<u>30</u>
Total	<u>100%</u>	<u>150</u>

<b>Semester work</b>	<u>Percentage</u>	<u>Marks</u>
	<u>20%</u>	<u>30</u>
Practical books	6.7 %	10
Periodical examinations	6.7%	10
Attendance	3.3%	5
Tutorial	3.3%	5

### E: Grading system:

The minimum passing score is 90 marks provided that at least 22.5 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### F. Final Examination Description:

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Two hours written examination composed of long questions, short essay, comparisons, case description and discussion and MCQs. The answers should be illustrated with drawings	75
Final Practical examination	Practical examination: in the form of spotting of 20 slides, Jars, boxes and cards of the practical atlas.	30
Oral Final examination	each student should be examined orally at two examination committees. One committee for helminthology and snail examination and the other arthropods and protozoa. Each committee is formed of two examiners who may be internal or external.	15

## **6- List of references**

### **1- Course notes**

The department practical books and atlas by professors of the department

### **2- Essential books (text books)**

The department text books : Medical parasitology part 1 and 2 by professors of the department

### **3- Recommended books**

## Medical parasitology

Basic clinical Parasitology,

Foundations of Parasitology, 5<sup>th</sup> ed., Roberts L.S. and Janovy J. (eds),  
Wm. C. Brown, Inc.

### 4- **Periodicals:**

Jornal of tropical medicine and hygiene.

Annals of tropical medicine and parasitology.

American journal of tropical medicine.

### - **Web sites**

<http://www.asp.uni.edu>

<http://www.parasitology.org.uk>

<http://www.dpd.cdc.gov/dpdx>

<http://www.parasite.biology.qiowa.edu>

<http://www.sciencedirect.com>

<http://www.pubmed.com>

### **7- Facilities required for teaching and learning :**

- 1- Overhead projectors
- 2- Computers
- 3- Microscope slides
- 4- Laboratories instruments
- 5- Lecture halls at the faculty
- 6- Laboratories at the department



**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Engy victor Nassief

**Signature**.....**Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Wafaa Mohammed E-kersh

**Signature**.....**Date**.....

.....

# Ophthalmology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title: Clinical Ophthalmology.**

**Code: MFM- IV 01**

**Department offering the course: Ophthalmology Department**

**Programme(s) on which the course is given: MBChB program**

**Academic year/level: Fourth year**

**Date of specification: 2006**

**Date of last specification revision : 2017**

**Date of approval by Departmental and Faculty Council: August 2017**

**Taught hours:**

**Lecture: 64 hours**

**Practical: 80 hours**

**Total: 144 hours**

## B-Professional Information

### **1 – Overall aims of course:**

- a. To provide the students with basic knowledge and skills required to deal with the common and emergent ophthalmic diseases
- b. To enable students to correlate the ophthalmic disorders and other specialities (Systemic diseases).

### **2– Intended learning outcomes of course (ILOs)**

#### **a- Knowledge and Understanding:**

*By the end of the course, students should be able to:*

- a1.** Recognize the basic approach for assessment of ophthalmologic cases

- a2. Determine the appropriate diagnostic tool used in the diagnosis of common ophthalmic problems.
- a3. Describe the causes, pathogenesis and management of most common diseases affecting the eyelids.
- a3. Identify** the causes, pathogenesis and management of most common diseases affecting the lacrimal System
- a4. Outline the causes, pathogenesis and management of most common diseases affecting the cornea.
- a5.** Describe the causes, pathogenesis and management of most common diseases affecting the conjunctiva.
- a6. Identify** the causes, pathogenesis and management of cataract.
- a7.** Outline the causes, pathogenesis and management of glaucoma
- a8.** Describe causes, types and management of errors of refraction.
- a9.** Recognize causes, types and management of errors of strabismus.
- a10.** Outline the causes, pathogenesis and management of most common diseases affecting the retina.
- a11.** Identify the causes and management of most common disorders of the orbit.
- a12.** Recognize the causes, pathogenesis and management of most common diseases affecting the uveal tract.
- a13.** Define types and management of intraocular tumors.
- a14.** Identify the basics of neuro-ophthalmology
- a15.** Outline management of ocular trauma
- a16.** Outline the management of emergencies in priority.
- a17.** Describe the clinical symptoms and signs of common ocular diseases, and ocular manifestations associated with systemic diseases.
- a18.** Recognize common causes of visual loss and their management.

**b-Intellectual skills:**



*By the end of the course, students should be able to:*

- b1.** Analyze the most important symptoms and signs of diseases in ophthalmic patient to reach a diagnosis
- b2.** Interpret the results of basic ophthalmological investigations
- b3.** Formulate a management plan for different ophthalmic emergencies and their first aid.

### **c-Professional and practical skills**

*By the end of the course, students should be able to:*

- c1.** Apply history taking for ophthalmic cases to reach a diagnosis.
- c1.** Perform adequate basic ophthalmic examination to identify deviations from normal.
- c2.** Present patient data in an organized and informative manner.

### **d-General transferable skills**

*By the end of the course, students should be able to:*

- d1.** Communicate properly with patients to have relevant data related to their problems.
- d2.** Work effectively in a team with respect to other colleagues.
- d4.** Apply the basics of medical research
- d5.** Deal effectively with information technology

## **3- Course Contents:**

1. The eyelids
2. Lacrimal System
3. The Cornea
4. The Conjunctiva
5. Cataract
6. Glaucoma
7. Errors of Refraction
8. Strabismus
9. Retina
10. The uveal tract

- 11.The Orbit
- 12.Intraocular tumors
- 13.Neuro-ophthalmology
- 14.Ocular trauma
- 15.Systemic Diseases and the Eye

Topic	ILOs	No. of hours per week As 32 teaching weeks	Total no. of hours per year	Hours for lectures	Hours for tutorial	Hours for practical
Eye lid	a1,a2, a3,b1,b3,c1	2	8	4		4
Lacrimal	a1, a2, a4, b1,b3,c1	2	4	2		2
Orbit	a1,a2,a5,b1,b2, d1	2	4	2		2
Cornea	a1,a2,a6,b1,b2, c1,c2,d1	2	8	4		4
Conjunctiva	a1,a2,a7,b4	2	8	4		4
Uvea	a1,a2,a8,b4	2	8	4		4
Errors or refraction	a1,a2,a9,b1,b4, c1	2	8	4		4
Lens	a1,a2,a10, a19,b3,b4,c1,c2	2	8	4		4
Glaucoma	a1,a2,a11,b3,c1	2	8	4		4
Squint	a1,a2,a12,b3,b4 ,c1,c2	2	8	4		4
Retina	a1,a2,a13,a19,b 3,c1	2	8	4		4
Trauma	a15,a16,b2,b3,c 1,d1	2	8	4		4
Neurophthamology	a1,a2,a17,b3,c1	2	8	-	4	4
Systemic Diseases & the eye	a1,a2,a18,b1,b3 ,c1,c2	2	6	-	4	2

#### **4- Teaching and learning methods**

1. Lectures.

2. Clinical rounds (small- group teaching, practice of clinical skills, video demonstration of basic operative procedures).
3. Ophthalmic inpatient wards.
4. Outpatient clinics.
5. Attending the emergency shifts periodically.

### **5- Student assessment:**

#### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

#### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>- Clinical exam</b>	<b>to assess the ability of students for clinical examination of patients</b>
<b>Written exam</b>	<b>to assess the student`s medical knowledge background</b>
<b>clinical slides exam</b>	<b>to assess The student`s ability to diagnose different eye diseases</b>
<b>multiple sudden multiple choice questions exam</b>	<b>to assess continuous education</b>

#### **C- Assessment schedule:**

- a. Assessment 1: Quiz exam at week 4 and 6.
- b. Assessment 2: How to do exam at Week 8
- c. Assessment 3: End round at Week 8.
- d. Assessment 4: Block exams at end of terms 1 and 2.

e. Assessment 5: End year exam.

### **D- Weighting of assessments**

EXAMINATION	MARKS ALLOCATED
Mid-term examination	12 % (30 marks)
Final-term examination	50 % (125 marks)
Oral examination	10 % (25 marks)
Practical examination	20 % (50 marks)
Semester work	8 % (20 marks)
<b>TOTAL</b>	<b>250</b>

### **E- Grading system:**

The minimum passing score is 150 marks provided that at least 37.5 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **6- List of references**

#### **1- Course notes**

Clinical ophthalmology notes for undergraduates

#### **2- Essential books (text books)**

- 1- Clinical Ophthalmology for undergraduates part I
- 2- Clinical Ophthalmology for undergraduates part II
- 3- Review of Ophthalmology (clinical assessment book)
- 4- Atlas of Ophthalmology

#### **3- Recommended books**

\*\* Kanski textbook

#### **4- Periodicals, Web sites, etc**



\*\* Official Ophthalmology Department website [www.mnf-opth.com](http://www.mnf-opth.com)

\*\* Facebook group for undergraduates:

<https://www.facebook.com/groups/1646125602333263/>

### **7- Facilities required for teaching and learning:**

- 1- Lecture halls
- 2- Halls for clinical rounds

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

#### **Course coordinators:**

**Name:** Dr. Mohamed Samy Abdel Aziz

**Signature**.....**Date**.....

#### **Head of Department:**

**Name:** Prof. Dr. Hoda Mohamed El Sobky

**Signature**.....**Date**.....



# Otorhinolaryngology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title:** Otorhinolaryngology

**Code** : MFM- IV 02

**Department:** Otorhinolaryngology

**Academic year** : 4<sup>th</sup> year

**Date of specification:** 2006

**Date of last specification revision:** 2017

**Date of approval by department and Faculty council:** August 2017

**Total teaching hours:** 104 hours

Lectures: 64 hrs    Clinical Rounds: 32 hrs

Tutorials: 8 hrs

### **1. Aim Of The Course:**

- a. To provide students with an appropriate foundation of knowledge covering the ENT emergencies and common diseases in the ear , nose, throat and head & neck disease in children and adults.
- b. To enable students to recognize important clinical ENT lesions and be familiar with recent methods of their diagnosis and proper management.

### **2. Intended Learning Outcomes (I.L.Os):**

#### **a- Knowledge and Understanding:**

- a1. Describe basic, applied and surgical anatomical facts, related to ear, nose and throat.
- a2. Recognize etiopathogenesis , diagnosis and treatment of common otologic diseases
- a3. Describe pathogenesis, and management of common nasal disorders.

- a4. Recognize etiopathogenesis, diagnosis and treatment of common pharyngeal diseases.
- a5. Describe pathogenesis, and management of common laryngeal disorders.
- a6. Define the common disorders of cervical oesophagus and trachea
- a7. Outline the common swellings of the neck and their management
- a8. Recognize principles and sequence of management of common ENT emergencies.

**b- Intellectual skills:**

- b1. Interpret ENT complaints according to the type of disease and disease process.
- b2. Interpret the results of basic ENT investigations
- b3. Formulate appropriate management plan for common ENT problems
- b4. Set priorities in dealing with ENT emergencies.

**c- Professional and practical skills**

- c1. Take and record comprehensive patient history from ENT cases.
- c2. Perform adequate basic ENT examination for common cases.
- c2. Provide first aid measures for some ENT emergencies like epistaxis. **d-**

**General and transferable skills**

- d1. Collaborate properly with colleagues in an effective team work.
- d2. Deal with patients in a compassionate and altruistic manner.
- d3. Search the literature to retrieve data and formulate it in a short essay
- d4. Recognize when to refer patient for the general practitioner.
- d5. Recognize the ethical and legal issues involved in patient –doctor communication.

**3. COURSE CONTENTS:**

Topic	ILOs to be achieved	Hours for lectures	Hours for practical	Hours for tutorial	Total hours per year
a) Anatomy and physiology of the ear	a1	2	1	--	3
b) Diseases of	a2,a8 b1 b2 b3 b4	2	5	--	7



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the external ear	c1 c2 c3 d1 d2 d3 d4 d5				
c) Acute and chronic otitis media	a2,a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	2	1	1	4
d) Complications of otitis media	a2,a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	2	1	--	3
e) Congenital and traumatic disorders of middle and inner ear	a2,a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	2	---	1	3
f) Otosclerosis and Meniere's disease	a2,a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	2	1	--	3
g) Tumors of the ear and acoustic neuroma	a2,a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	2	--	--	2
h) Facial nerve anatomy and paralysis	a2,a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	2	1	--	3
i) Symptomatology and Ear operations	a2 a8 b1 b2 b3 b4	2	--	--	2
j) Basic audiology-	a2 a8 b1 b2 b3 b4	2	--	--	2
k) Basic phoniatrics	A5 a8 b1 b2 b3 b4	2	--	--	2
<b>Pharynx</b>					
a) Anatomy and physiology of the pharynx	a1	2	1	--	3





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<b>b) Nasopharyngeal diseases</b>	a4 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>c) Inflammations of the pharynx and tonsil</b>	a4 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>
<b>d) Pharyngeal suppurations</b>	a4 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	--	<b>1</b>	<b>3</b>
<b>e) Tumors of the pharynx</b>	a4 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>f) Symptomatology and operations of the pharynx</b>	a4 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	--	--	<b>2</b>
<b>Nose</b>					
<b>a) Anatomy and physiology of the nose</b>	a1	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>b) Congenital and traumatic disorders of the nose and epistaxis</b>	a3 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>3</b>	--	<b>5</b>
<b>c) Inflammations of the nose and septal diseases</b>	a3 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>2</b>	<b>2</b>	<b>6</b>
<b>d) Acute sinusitis</b>	a3 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>e) Chronic sinusitis and complications of sinusitis</b>	a3 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	--	<b>3</b>



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<b>f) Nasal allergy and nasal masses</b>	a3 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>2</b>	--	<b>4</b>
<b>g) Symptomatology and operations of the nose</b>	a3 a8 b1 b2 b3 b4	<b>2</b>	--	--	<b>2</b>
<b>Larynx</b>					
<b>a) Anatomy and physiology of the larynx</b>	a1	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>b) Congenital and traumatic disorders of the larynx</b>	a5 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>c) Inflammatory disorders of the larynx</b>	a5 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>d) Vocal cord paralysis and tracheostomy</b>	a5 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>2</b>	--	<b>4</b>
<b>e) Tumors of the larynx</b>	a5 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	<b>1</b>	--	<b>3</b>
<b>f) Symptomatology and laryngeal operations</b>	a5 a8 b1 b2 b3 b4	<b>2</b>	--	--	<b>2</b>
<b>Neck</b>					
<b>a) Esophagus and trachea</b>	a6 a8 a4 b1 b2 b3 b4	<b>2</b>	--	--	<b>2</b>
<b>b) Neck swellings</b>	a7 a8 b1 b2 b3 b4 c1 c2 c3 d1 d2 d3 d4 d5	<b>2</b>	--	<b>2</b>	<b>4</b>
<b>End round exam</b>			<b>2</b>		<b>2</b>
<b>Total hours</b>		<b>64</b>	<b>30</b>	<b>8</b>	<b>104</b>

Subjects	Lecture	Practice & Tutorial	Total Hours
Ear	22	12	34
Pharynx	12	6	18
Nose	14	12	26
Larynx	12	6	18
Oesophagus, Trachea & Neck	4	2	6
<b>Total</b>	<b><u>64</u></b>	<b><u>38</u></b>	<b><u>102</u></b>

**Detailed description of course topics:**

**A. Theoretical Course:**

**1. EAR:**

- a) Anatomy and physiology of the ear
- b) Diseases of the external ear
- c) Acute and chronic otitis media
- d) Complications of otitis media
- e) Congenital and traumatic disorders of middle and inner ear
- f) Otosclerosis and Meniere's disease
- g) Tumors of the ear and acoustic neuroma
- h) Facial nerve anatomy and paralysis
- i) Symptomatology and Ear operations
- j) Basic audiology
- k) Basic phoniatics

**2. Pharynx:**

- a) Anatomy and physiology of the pharynx
- b) Nasopharyngeal diseases
- c) Inflammations of the pharynx and tonsil
- d) Pharyngeal suppurations

- e) Tumors of the pharynx
- f) Symptomatology and operations of the pharynx

### 3. Nose:

- a) Anatomy and physiology of the nose
- b) Congenital and traumatic disorders of the nose and epistaxis
- c) Inflammations of the nose and septal diseases
- d) Acute sinusitis
- e) Chronic sinusitis and complications of sinusitis
- f) Nasal allergy and nasal masses
- g) Symptomatology and operations of the nose

### 4. Larynx:

- a) Anatomy and physiology of the larynx
- b) Congenital and traumatic disorders of the larynx
- c) Inflammatory disorders of the larynx
- d) Vocal cord paralysis and tracheostomy
- e) Tumors of the larynx
- f) Symptomatology and laryngeal operations

### 5. Neck

- a) Esophagus and trachea
- b) Neck swellings

## Clinical round:

Week	Day	Topic
Week 1	Sunday	<b><u>Basic Ear examination</u></b> <b><u>Case scenario 1:</u></b> Microtia <b><u>Case scenario 2:</u></b> Auricular hematoma
	Monday	<b><u>Case scenario 3:</u></b> Furunculosis <b><u>Case scenario 4:</u></b> Diffuse otitis externa
	Tuesday	<b><u>Case scenario 5:</u></b> Basal cell carcinoma <b><u>Case scenario 6:</u></b> Keloid <b><u>Case scenario 7:</u></b> Ear wax
	Wednesday	<b><u>Case scenario 8:</u></b> Traumatic perforation <b><u>Case scenario 9:</u></b> Acute otitis media

	<b>Thursday</b>	<b>Case scenario 10:</b> CSOM media safe type <b>Case scenario 11:</b> Cholesteotoma
<b>Week 2</b>	<b>Sunday</b>	<b>Case scenario 12:</b> Otosclerosis <b>Case scenario 13:</b> Bell's palsy
	<b>Monday</b>	<b>Basic nasal examination</b> <b>Case scenario 14:</b> Nasal Hemangioma <b>Case scenario 15:</b> Foreign body nose <b>Case scenario 16:</b> Fracture nasal bone
	<b>Tuesday</b>	<b>Case scenario 17:</b> Nasal furuncle <b>Case scenario 18:</b> Rhinoscleroma
	<b>Wednesday</b>	<b>Case scenario 19:</b> Septal hematoma <b>Case scenario 20:</b> Septal deviation
	<b>Thursday</b>	<b>Case scenario 21:</b> Acute sinusitis <b>Case scenario 22:</b> Frontal mucocele
<b>Week 3</b>	<b>Sunday</b>	<b>Case scenario 23:</b> Sinonasal polyposis <b>Case scenario 24:</b> Antrochonal polyp <b>Case scenario 25:</b> Sinonasal malignancy
	<b>Monday</b>	<b>Case scenario 26:</b> Epistaxis <b>Case scenario 27:</b> Oroantral fistula
	<b>Tuesday</b>	<b>Basic pharyngeal examination</b> <b>Case scenario 28:</b> Ranula <b>Case scenario 29:</b> Lingula thyroid
	<b>Wednesday</b>	<b>Case scenario 30:</b> Acute tonsillitis <b>Case scenario 31:</b> Acute follicular tonsillitis and quinsy
	<b>Thursday</b>	<b>Case scenario 32:</b> Secondary posttonsillectomy hemorrhage <b>Case scenario 33:</b> Unilateral tonsillar mass <b>Case scenario 34:</b> Adenoid
<b>Week 4</b>	<b>Sunday</b>	<b>Basic laryngeal examination</b> <b>Case scenario 35:</b> Laryngomalacia and laryngeal web <b>Case scenario 36:</b> Acute laryngitis <b>Case scenario 37:</b> Chronic laryngitis

<b>Monday</b>	<p><b><u>Case scenario 38:</u></b> Vocal cord nodules</p> <p><b><u>Case scenario 39:</u></b> Multiple laryngeal papillomatosis</p> <p><b><u>Case scenario 40:</u></b> Vocal cord paralysis</p>
<b>Tuesday</b>	<p><b><u>Case scenario 41:</u></b> Cancer larynx</p> <p><b><u>Case scenario 42:</u></b> Foreign body oesophagus</p> <p><b><u>Case scenario 43:</u></b> Pharyngeal pouch</p>
<b>Wednesday</b>	<p><b><u>Case scenario 44:</u></b> Ludwig's angina</p> <p><b><u>Case scenario 45:</u></b> Parotid poleomorphic adenoma</p> <p><b><u>Case scenario 46:</u></b> Submandibular swelling</p>
<b>Thursday</b>	<b>Exam</b>

#### **4. TEACHING & LEARNING METHODS:**

##### **I- Teaching methods:**

<b><u>Teaching method</u></b>	<b><u>Intended learning outcomes</u></b>
1. Interactive lectures	<b><u>Knowledg, understanding and intellectual skills</u></b>
2. Clinical rounds	<b><u>Knowledg, understanding and practical skills</u></b>
3. Small groups teaching, problem-based learning and data show discussions through tutorial.	<b><u>Intellectual and general skills</u></b>
<b>04. Attendance with guidance in:</b> <ul style="list-style-type: none"> <li>• ENT wards: once/clinical round</li> <li>• Outpatient clinic: once/ clinical round</li> <li>• Live surgery: once/ clinical round</li> </ul>	<b><u>Practical and general skills of d1, d2, d4 and d5</u></b>

##### **III- Time Plan:**

Item:	Time schedule	Teaching hours	Total hours
Lectures	1lecture/week	2 x 32	64
Clinical rounds and tutorials	5 rounds/week	10 x4	40
<b>Total</b>			104 hours

## 5. STUDENT ASSESSMENT:

### A- Attendance criteria

The minimal acceptable attendance is 75%. Students who fail to attend that percentage of activities will not be allowed to apply for final written examination

### B- Assessment tools:

TOOL	PURPOSE
<b>Written exam</b>	assessment of a2 a3 a4 b1 b2 b3
<b>clinical slides exam</b>	For assessment of : b1 b2 b3 c1 c2 c3
<b>Oral examination:</b>	For assessment of : a1 a2 a3 a4 b1 b2 b3 d1 d2 d3 d4 d5 d6.
<b>End-round examination:</b>	For assessment of : a1 a2 a3 a4 b1 b2 b3 c1 c2 c3
<b>Lecture Exams</b>	at the end every subdivision of the syllabus For assessment of : a1 a2 a3 a4 b1 b2 b3
<b>Assignment for research</b>	For assessment of d1, d4
<b>Log Book</b>	For assessment of attendance to outpatient clinic, emergency room and operative theater

### **C- Assessment schedule:**

#### **III. 01. Final written examination:**

Held at the end of the academic year for all students

#### **III. 02. Final oral examination:**

Held at the end of the academic year for all students

#### **III. 03. Final clinical examination:**

Held at the end of the academic year for all students

#### **III. 04. End-round examination:**

At end of the four weeks clinical round.

#### **III. 05. Periodic assessment:**

At the end every subdivision of the syllabus

### **D- Weighing of assessment:**

Examination	Description	Marks	
Periodic	End round: written examination	8	
	Lecture: written examination	20	
	Research	3	
	Log book	3	
	Attendance	6	
		40	
Final	Written	2.5 hours written paper composed of short answer questions.	100
	Clinical	Stations of instruments , lesions pictures, radiological documents and audiological documents (PTA&Tymp)	30
	Oral	Two sessions	30



<b>Total</b>	<b>Total</b>	200
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### **E. Grading system:**

- The **minimum passing score** is 120 marks, 30 marks must be obtained in the final written exam.
- Passing grades are as follows:
  - o Excellent : 85% and above.
  - o Very good : 75% up to below 85%.
  - o Good : 65% up to below 75%.
  - o Pass : 60% up to below 65%

### **F- Final Examination Description**

Exam	Description	Marks
Written	2.5 hours written paper composed of short answer questions.	100
Clinical	Stations of instruments , lesions pictures, radiological documents and audiological documents (PTA&Tymp)	30
Oral	Two sessions	30

### **6. List of References:**

- A- Staff member's book.
- B- Otolaryngology and head and neck surgery (Oxford specialist handbooks in surgery)
- C- Basic otorhinolaryngology step by step
- D- Recommended web sites: [www.medscape.com/](http://www.medscape.com/)

### **7. TEACHING & LEARNING FACILITIES:**



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- A- Lecture rooms in the faculty (Board, Overhead projector & Data show are available).
- B- Round halls in the department of ORL in the hospital where facilities are available
- C- Slide projectors, overhead projectors and Data show, models simulators camera with light source and endoscopes).
- D- General Library of the faculty.

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Prof. Dr. Essam Abdel-Wanees Behairy

**Signature**.....**Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Essam Abdel-Wanees Behairy

**Signature**.....**Date**.....

.....



# Forensic Medicine and Clinical Toxicology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title:** Forensic Medicine and Clinical Toxicology

**Code:** MFM-IV 03

**Department offering the course:** Forensic Medicine and Clinical Toxicology

**Programme(s) on which the course is given:** M.B.B.Ch Program

**Academic year/level:** 4th Year

**Date of specification:** 2006

**Date of last specification revision:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017

**Taught hours:**

**Lectures:** 80 hour

**Practical& tutorial:** 80 hour

**Total:** 160

## B- Professional Information

### **1 – Overall aims of course:**

- To provide basic background of different medicolegal aspects of living and dead individuals including body remains.
- To provide basic knowledge of medical ethics and malpractice
- To provide ability to diagnose and manage intoxicated patients.

### **2- Intended Learning Outcomes:**

#### **a-knowledge and Understanding:**

**By the end of the course the student must be able to:**

- Describe different medicolegal aspects of dead individuals regarding personal identification, diagnosis of death, causes and manner of death and postmortem changes and differentiation between types of wounds.

a2. Outline medicolegal aspects of living individuals including differentiation between types of wounds

a2. Describe and explain medicolegal (ML) aspects of different cases of sexual offences.

a3. Define and explain maternal morbidity and mortality from ML point of view

a4. Define and explain various medicolegal aspects of malpractice

a5. Describe basic background of medical ethics

a6. List different classes of common toxic substances and environmental pollutants

a7. Describe and explain the circumstances of intoxication, toxic dosed, toxicokinetics, clinical picture ,differential diagnosis of different drugs and toxic substances.

a8. Describe and explain initial appropriate first aid treatment and antidotal measures for different drugs and toxic substances.

### **b-Intellectual Skills:**

By the end of the course the student must be able to:

b1. Interpret common ethical dilemmas and suggest a proper solution.

b2. Analyze case scenario of clinical forensic medicine and recognize their medico legal aspects.

b3. Analyze different problems of malpractices

b4. Analyze case scenario of intoxicated patient and formulate treatment plan.

### **c-Professional Skills:**

By the end of the course the student must be able to:

c1. Identify living and dead individuals and body remains

c2. Diagnose death by different clinical and investigatory methods.

c3. Determine time of death through assessment of post mortem changes.

- c4. Identify different causes of death and manner of death as well.
- c5. Examine different wounds and injuries and write a proper primary wound report
- c6. Make a preliminary tests for blood grouping and toxicological screening.
- c7. Diagnose different toxicological emergencies.
- c8. Construct a proper history and Perform an adequate clinical examination for a toxicology patient.

#### **d- General and transferable skills**

By the end of the course the candidate will be able to:

- d1. Communicates the medico-legal data in written, oral or electronic forms.
- d2. Use information technology effectively in the field of legal practice.
- d3. Deal respectively with teachers and colleagues maintaining a professional image concerning behavior ,dress and speech.
- d4. Demonstrate compassionate treatment of patients and respect of their privacy and dignity.
- d5. Recognize the scope and limits of their role as students as well as the necessity to seek and apply collaboration with other workers.

### **3. Course Contents**

- 1-Identification
- 2-Death and Post mortem changes
- 3-Sexual offences and child abuse
- 4-Asphyxia
- 5-Pregnancy& delivery, abortion & Infanticide
- 6- Traumatology

7-Ethics & Malpractice

8-General Toxicology

9-Special toxicology

Topic	ILOs covered
<b>1-Identification</b>	a1,b2,c1,c6,d1,d2,d3
<b>2-Death and Post mortem changes</b>	a1,b2,c2,c3,c4, d1,d2,d3
<b>3-Sexual offences and child abuse</b>	a2,b2, d1,d2,d3
<b>4-Asphyxia</b>	a1,b2,c4, d1,d2,d3
<b>5-Pregnancy &amp; delivery, abortion &amp; Infanticide</b>	a3,b2, d1,d2,d3
<b>6-Traumatology</b>	a1,b2,c4,c5, d1,d2,d3
<b>7-Ethics &amp; Malpractice</b>	a4,a5,b1,b3,d1,d2,d3,d4,d5,d6
<b>8-General Toxicology</b>	a6,a7,a8,b4,c6,c7,c8, d1,d2,d3
<b>9-Special Toxicology</b>	a6,a7,a8,b4,c6,c7,c8, d1,d2,d3

**Detailed description of course contents**

**Lecture course**

**Forensic Medicine**

Topics	Hours
<b>1-Introduction (ILOs)</b>	<b>1.5x2</b>
<b>2-Identification</b>	<b>5x2</b>
<b>3-Post mortem changes</b>	<b>4x2</b>
<b>4-Sexual offences and child abuse</b>	<b>2.5x2</b>



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<b>5-Asphyxia</b>	<b>5x2</b>
<b>6-Wounds</b>	<b>5x2</b>
<b>7-Regional injuries</b>	<b>5x2</b>
<b>8-Firearm injury</b>	<b>4x2</b>
<b>9-Road traffic accident</b>	<b>1.5x2</b>
<b>10-Physical injury</b>	<b>3x2</b>
<b>11-Ethics &amp; Malpractice</b>	<b>2x2</b>

### Toxicology Course

<b>12-General Toxicology</b>	<b>6x2</b>
<b>13-Special toxicology</b>	
Addiction	3x2
Corrosives	3x2
Heavy metals	5x2
Volatiles ( Alcohols)and Noxious gases	5x2
Toxic plants( Addicting )	2.5x2
Non addicting) ( Toxic plants	2.5x2
C.N.S. stimulants	2x2
C.N.S. depressants	2x2
C.N.S. tranquilizers	1.5x2
Analgesics	1.5x2
Insecticides &Rodenticides	4.5x2
Animal bites	1.5x2
Food poisoning	1.5x2

## Practical & tutorial course

**Practical Session for each group(8weeks : 2.5x5x8=100x4 hours)**

Practical Session	Hours
Preliminary tests for blood identification	2x4
Spectroscope & Blood group	2x4
Toxic seeds(large)	2x4
Toxic seeds(small)	2x4
Projectiles (smooth)	2x4
Projectiles( Rifled )	2x4
Toxicological sheet & diagnosis	2x4
First aid	2x4
Decontamination	2x4
Color tests	2x4
Hair & fibers	2x4
Reinsch Test	2x4
Semen	2x4

## Clinical Rounds for each group

Clinical Round	Hours
Identification(age)	2x4
Identification(sex & race)	2x4
General wounds& primary ML report 1 <sup>st</sup> part	2x4
General wounds & primary ML report 2 <sup>nd</sup> part	2x4



Firearm injuries 1 <sup>st</sup> part	2x4
Firearm injuries 2 <sup>nd</sup> part	2x4
Rape and sodomy	2x4
Head injuries 1 <sup>st</sup> part	2x4
Head injuries 2 <sup>nd</sup> part	2x4
Asphyxia 1 <sup>st</sup> part	2x4
Asphyxia 2 <sup>nd</sup> part	2.5x4
Death & post mortem changes 1 <sup>st</sup> part	2x4
Death & post mortem changes 2 <sup>nd</sup> part	2x4
Physical injuries	2x4
Regional injury	2x4
<b>Pregnancy delivery, abortion , Infanticide &amp; Common Poisons (Tutorial)</b>	One day/week

#### **4 – Teaching and learning methods**

Teaching method	Intended learning outcomes
Lectures	<b>Knowledgw, understanding and intellectual skills</b>
Practical Session (Laboratory Tests).	<b>Practical skills</b>
Clinical rounds: <ul style="list-style-type: none"> <li>• Demonstration (slides and photographs- Museum specimens)</li> <li>• Case study</li> <li>• Group discussion, how to</li> </ul>	<b>Practical and general skills</b>

<p>do a research and collect data.</p> <ul style="list-style-type: none"> <li>• Clinical visit to causality department</li> </ul>	
Tutorial teaching.	<b>Intellectual and general skills</b>

## **5. Student assessment:-**

### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination ( essay- short questions- MCQ- &amp; Problem solving)</b>	<b>Assessment of knowledge, understanding und intellectual skills</b>
<b>Practical examination</b>	<b>Assessment of knowledge, understanding, intellectual and practical skills</b>
<b>Oral examination</b>	<b>Assessment of knowledge, understanding &amp; general skills.</b>

### **C- Assessment schedule:**

- 20% exam held twice/year: One exam MCQs, Second short notes
- Final written exam at the end of academic years for all students
- Final Practical exam at the end of academic years for all students
- Oral exam at the end of academic years (two settings)
- End round exam, duties and attendance
- Lectures attendance, project

### D- Weighting of assessments

EXAMINATION	MARKS ALLOCATED
20% exam held twice/year One exam MCQs Second short notes	10
Final written exam at the end of academic years for all students	100
Final Practical exam at the end of academic years for all students	20
Oral exam at the end of academic years (two settings)	40
End round exam, duties and attendance	20
Lectures attendance, project	10
<b>TOTAL</b>	<b>200</b>

### E- Grading system:

The minimum passing score is 120 marks provided that at least 30 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### F- Final Examination Description:

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Two and half hours written paper	100

Final Practical examination	<ul style="list-style-type: none"> <li>• Identification of photographs</li> <li>• Questions about photographs</li> </ul>	20
Oral Final examination	Two sessions	40

## **6- List of references**

### **BASIC:**

2. Department books
3. Practical Book

### **SUGGESTED MATERIALS:**

1. Forensic Pathology of Mayo
2. Forensic Medicine Encyclopedia
3. Principles of Clinical Toxicology
4. Emergency Toxicology

Suggested websites:-[www.eulc.edu.eg](http://www.eulc.edu.eg)

## **7- Resources / Facilities required for teaching and learning to achieve the above ILOs**

1. Department lab for toxicological test and drug screening.
2. Faculty lectures halls for lectures.
3. Causality departments for medico-legal reports and toxicological cases



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**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Situhom El Sayed

**Signature**.....**Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Safaa abd El Zaher.

**Signature**.....**Date**.....

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## Public health and community medicine

**University: Menoufia**

**Faculty: Medicine**

### A-Administrative information

**Course Title:** Community medicine

**Code:** MFM-IV 04

**Department offering the course:** community and occupational medicine

**Program(s) on which the course is given:** M.B.B.CH

**Academic year:** Fourth year

**Date of specification:** 2006

**Date of last specification revision:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017

**Taught hours:**

Lecture:	Practical	Field	Total:
128h	65 h	15 h	208 h

### B-Professional information

#### 1- Overall aims of course:

- Prepare a community-oriented physician capable of implementing preventive and control measures for common communicable diseases on the individual, family and community levels and within the primary health care (PHC) settings following MOHP policies and protocols.
- Develop a graduate who is aware about the potential emerging/ threatening diseases and who can act as the first line of defense and management.
- Prepare a community-oriented physician capable of anticipating and responding to community health needs within the primary health care

(PHC) setting according to the policies , regulations and guidelines of the Ministry of Health and Population (MOHP).

## **2– Intended learning outcomes of course (ILOs)**

### **a- Knowledge and Understanding:**

*By the end of the course, students should be able to:*

- a1.** Define the health status of populations, determinants of health and illness, factors contributing to health promotion and disease prevention of non communicable and communicable diseases within the different health settings and for specific age groups, and factors influencing the use of health services.
- a2.** Explain the basic terms and methods used in infectious diseases epidemiology, disease prevention, control trials, outbreak investigation, and evaluation of screening tests
- a3.** Recognize the safety protocols for medical practice concerning doctor and patient and the principles of infection control in clinical practice.
- a4.** Define basics of demography and vital statistics related to fertility, morbidity and mortality.
- a5.** Define epidemiologic approaches of disease occurrence in communities: determinants, distribution and dynamics including prevention and control.
- a6.** Describe risk factors, prevention and epidemiology of important non-communicable diseases.
- a7.** Define the screening tests and methods pertinent to selected morbidity conditions and the at-risk approach in the application of screening tests.
- a8.** Describe the different health education/communication strategies for use with clients, and approaches for providing health services to the community.
- a9.** Identify the definition, risk factors, impact and preventions of mental illness with elements of mental health program.
- a10.** Define the basics of nutritional assessment and diet in health and different diseases with identification of nutritional public health problems.
- a11.** Define the general principles of health care management & administration respecting problem identification and priority setting, quality management and health economic

- a12. Describe the MOHP programs for prevention and control of the communicable and most prevailing diseases in Egypt. Identify the principles and organization of national health care system
- a13. Recognize the principles of primary health care and the role of PHC physician in addressing local health problems, the prevention and control of vulnerable groups' health problems
- a14. Outline rural health problems, screening, prevention and rural health team and program.
- a15. Identify the definitions and concepts, components of comprehensive reproductive health with elements of Egyptian maternal child health program.
- a16. Define different elderly health problems with elderly health care program.
- a17. Define occupational hazards with their risk factors, prevention and control with element of occupational health program.
- a18. Identify the principles of clinical audit and quality cycles and their utilization in different public health settings.
- a19. Outline the general principle for management of reproductive problems

### **b-Intellectual skills**

*By the end of the course the student would be able to:*

- b1. Solve community problems using evidence based medicine based on analysis of data retrieved from the community.
- b2. Design scientific research through the formulation of targeted research questions with adoption of the principles of critical appraisal.
- b3. Use data appropriately and determine the suitable statistical methods for problem identification, prioritization and resolution, and for program planning, implementation, and evaluation.

### **c. Practical and Clinical Skills**

**By the end of the program, the graduate will be able to:**

- c1. Assess and respond to individual and population health hazards.
- c2. Formulate simple policy for a given health issue.
- c3. Design, implement and evaluate health services for both individuals and populations.
- c4. Analyze simple Statistical data



### **d. General and Transferable Skills**

- d1.** Express freely and adequately themselves by improving descriptive capabilities and communication skills.
- d2.** Demonstrate ethical relationship with faculty and staff members.
- d3.** Develop attitudes that will maximize their educational experiences.
- d4.** Think and respond properly when solving public health problems, appropriately address different problems.
- d5.** manage time and resources effectively and set priorities.
- d6.** cope with changing work environment.

### **3- Course Contents:**

Topic	ILO	No. of hours per week	Total no. of hours per semester / year	Hours for lectures	Hours for tutorial and other small group or project	Hours for practical
General Epidemiology, epidemiology of communicable and non communicable diseases, PHC, quality , nutrition, PHA	A1,2,3,4,5,7,9, 10, B1,2, C2,3 D1	8h/w	64 h	4hlw	2hlw	2hlw
Medical statistics,	A3,5,6,8,9,10, 19					

MCH, geriatric, Adolescents, child abuse, FP, infection control	B 1-3 C4	6h/ w	30 h	4hlw	1hlw	1hlw
Occupational medicine, environmental medicine, mental health	a9, a17 C1,2,3	4h/ w	20 h		1hlw	3hlw
Demography , health education, communication , rural health	A4,5,14	2h/ w	14 h	1hlw	1hlw	1hlw

**Detailed Description of the topics:**

**A. Theoretical Course**

**1. GENERAL EPIDEMIOLOGY OF COMMUNICABLE DISEASES**

- Patterns of occurrence of disease in communities (sporadic, endemic, outbreak, epidemic, pandemic).
- The infectious cycle (causative agent; reservoir: human and animal/zoonosis; mode of transmission; incubation period; period of communicability; susceptibility and resistance).
- Preventive measures: general and specific.
- Control measures: the case, the immediate contacts, the community especially during epidemics, outbreaks and pandemics.
- Surveillance systems, disease elimination and eradication.
- Investigation of an epidemic/ outbreak.
- Disinfection, sterilization, nosocomial/hospital infection.

**2. EPIDEMIOLOGY OF SELECTED COMMUNICABLE DISEASES**

The selected diseases will include, common endemic diseases, emerging diseases, international diseases and potentially threatening diseases:

- The infectious cycle for each of the selected diseases.
- Prevention and control, and special programs as available.
- Immunization: recommended and potential vaccines.

### **3. HOSPITAL INFECTION & STERILIZATION**

Disinfection, sterilization, nosocomial/hospital infection

### **4. MEASUREMENTS OF HEALTH, DEMOGRAPHY & VITAL STATISTICS**

Definitions, census, population estimates and projections, Egypt's population trend, theory of demographic transition, population pyramids, sources of data, vital indices and concepts of quality of life.

### **5. EPIDEMIOLOGY OF SELECTED NON-COMMUNICABLE DISEASES**

General concepts, risk factors, primary and secondary prevention, periodic examination, screening tests, epidemiology of injuries and selected non-communicable diseases (ischemic heart disease, hypertension, rheumatic heart disease, diabetes, cancer, blood disorders, bronchial asthma).

### **6. COMMUNICATION & HEALTH BEHAVIOUR**

Basic behavioral theories, behavioral and social variables, communication, health education, counseling, and community mobilization.

### **7. MENTAL HEALTH**

Definition, Risk factors, impact of mental illness, primary and secondary prevention, mental health program.

### **8. NUTRITION IN HEALTH & DISEASE**

Definitions and concepts, nutrients (sources, functions, requirements), adequate diet, nutritional public health problems, assessment of the nutritional status, diet and chronic diseases.

### **9. HEALTH CARE MANAGEMENT & ADMINISTRATION**

Definition and principles of management, assessment of community needs and resources, problem identification and priority setting, organization-based management, leadership and team building, quality management, health economic

## **10. HEALTH SYSTEMS & HEALTH SERVICES IN EGYPT**

Egypt's health policy, different health systems functioning in Egypt, the organizational structure and function of the MOHP the referral system, the concept of health reform

## **11. PRIMARY HEALTH CARE & FAMILY HEALTH PRACTICE**

Curative/preventive patterns of care, levels of practice (individual, family and community levels), comprehensive health care, PHC (definition and principles, characteristics, elements), PHC services in Egypt, the family practice approach in Egypt.

## **12. RURAL HEALTH**

Health-related problems in rural areas , the rural health program, organization of rural health services ,staffing of the rural health team.

## **13. REPRODUCTIVE HEALTH**

Definitions and concepts, components of comprehensive RH, RH activities and MCH services implemented in Egypt, evaluation of MCH program, FP (the population policy and strategy for Egypt, the national FP program, and its evaluation).

## **14. HEALTH OF ELDERLY**

Definitions, the physical, mental, and social problems and needs of the elderly, health care programs for the elderly and their relation to other care programs.

## **15. OCCUPATIONAL HEALTH**

Concepts and definitions, hazards/work-related hazards for different occupations and jobs, prevention and control of occupational hazards, ergonomics, occupational health program, the role of the PHC in occupational health.

### **B. Practical Course**

- Practical course includes pre-visit orientation seminars & post-field visit group discussion.
- Practical includes: exercises, student presentation and group discussions.
- Each visit lasts approximately 3 hours (3 hrs per visit).

## **4- Teaching and learning methods**

Teaching method	Intended learning outcome
Interactive lectures	Knowledge, understanding and interactive lectures
Clinical rounds	Knowledge, understanding and practical skills
Tutorial	Knowledge, understanding, Intellectual skills and general skills
Small group teaching, problem based learning	Intellectual and general skills
Field visits with guidance in the selected field visits	Practical and general skills

## 5- Student assessment:

### A. Attendance Criteria:

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### B. Assessment Tools:

TOOL	PURPOSE
Written examination	Assessment of knowledge, understanding und intellectual skills
Practical examination	Assessment of intellectual and practical & transferable skills
Structured Oral	Assessment of knowledge, understanding

<b>examination</b>	<b>,intellectua &amp; general skills.</b>
<b>project exam</b>	<b>Assessment of practical and transferable skills</b>

### **C- Assessment schedule**

**End-round examination:** • Once at end of the eight weeks clinical round.

**Quiz exam:** at the end of each week of the clinical round

**Final examination:** which consists of written, practical and oral exams and Held at the end of the academic year for all students.

### **D- Weighting of assessments**

EXAMINATION	MARKS ALLOCATED
Final examination	150 marks (50%)
Practical and oral exam	90 marks (30%)
Periodical assessment (including the project)	60 marks (20%)
Total	300 marks (100%)

### **E- Grading system:**

The minimum passing score is 180 marks provided that at least 45 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

## **F- Final Examination Description:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Three hours written paper	150
Final Practical examination	<ul style="list-style-type: none"> <li>• Identification slides and photographs</li> <li>• identification points for slides &amp; photographs</li> </ul>	45
Oral Final examination	One session ( 2 examiners)	45

## **6- List of references**

1- Course notes

Books authorized by department

2- Essential books (text books)

Maxey Rosenau text book (Wallace Ed.).

3- Recommended books

Publications of national and international public health organization; EMOHP, WHO, CDC and APHA

4- Periodicals, Web sites, etc

Pubmed website

WHO website

## **7- Facilities required for teaching and learning:**

A- Lecture rooms in the faculty (Board, Overhead projector & Data show are available).

B- Round halls in the department where facilities are available

C- Slide projectors, overhead projectors and Data show.



Menoufia Faculty of Medicine  
Accredited



D- General Library of the faculty-

E- Field trips

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Prof. Dr. Omaila Aboel Fateh Mohamed

**Signature**.....**Date** .....

**Head of Department:**

**Name:** Prof. Dr. Omaila Aboel Fateh Mohamed

**Signature**.....**Date**.....



# FAMILY MEDICINE I

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title: Family medicine I**

**Code: MFM- IV 05**

**Program on which the course is given: MBBCh**

**Department offering the course: Family medicine dep.**

**Date of specification: 2010**

**Date of specification revision: 2017**

**Date of approval by Department council and Faculty council: August 2017**

**Taught hours:**

**Lectures: 30 hours    Practical: 48 hours    Field training: 12 hours**

**Total: 90 hours**

## B- Professional Information

### **1- Overall aims of course:**

**By the end of this course the students able to:**

- a) Adopt holistic approach in primary care management with emphasis on disease prevention and health promotion.
- b) Practice Patient-centered care through achieving the clinical and practical standards required to be able to satisfy national and labor market needs.

### **2 – Intended Learning Outcomes of the Course (ILOs)**

#### **a-Knowledge and Understanding:**

- a1. Define and mention principles of family medicine throughout the family life cycles, events, stress and illness.
- a2. List the components of family health units, content of family health record, genogram and role of family physician and health team.
- a3. Illustrate the main ethical principles and legal issues in patient care and patient-physician relationships and its role in patient compliance.
- a4. Describe the importance of effective counseling sessions, methods of early diagnosis and screening of chronic diseases and malignancies.
- a5. Identify dimension of quality in health care and define the principal of clinical audit.

#### **b- Intellectual Skills:**

- b1. Apply referral regulations in family practice.
- b2. Apply health maintenance and following anticipatory care guidance.
- b3. Formulate an anticipatory care plan according to life cycle approach.
- b4. Interpret ethical dilemmas in relation to the principles of family medicine.
- b5. Design home visits plans.

#### **c- Professional and Practical Skills**

- c1. Interpret the family health record and apply prescription writing, genogram drawing and referral letter writing.
- c2. Construct appropriate communication skills during healthcare centers visits.

#### **d- General and Transferable Skills**

- d1. Retrieve the use of the recent information and communications technologies
- d2. Communicate clearly and effectively with a scientific topic in the practical class, a staff meeting or the yearly scientific day.
- d3. Working in teamwork to evaluate his own and others work through construction feedback.

**d4.** Apply the ethics of medical practice when dealing with patients and colleagues.

### **3- Course Contents**

Weeks	Topic	ILOs	No. of hours			Total
			Theoretical	Practical		
				Round	Field visit	
1 st Week	Introduction to family medicine curriculum	A1,D1,2,3,4	1	1	-----	2
2nd week	Principles of family medicine	A1, D1,2,3,4	1	2	-----	3
3rd week	Family & family types in family practice Family dynamics	A1,D1,2,3,4	1	3	-----	4
4th week	Family genogram	A2,C1,D1,2,3,4	1	3	-----	4
5th week	Health services and family health model	A2 D1,2,3,4	1	3	3	7
6th week	Family physician	A2, D1,2,3,4	1	-----	-----	1
7th week	Family health record	A2,C1, D1,2,3,4	1	3	3	7
8th week	Basic benefit package (BBP)	A2,D1,2,3,4	1	3	3	7
9th week	Drug prescription in family practice	C1 D1,2,3,4	1	3	----	4
10th week	Ethics in family practice	A3,B4, D1,2,3,4	1	3	-----	4
11 <sup>th</sup> Week	Ethics in family practice	A3,B4, D1,2,3,4	1	----	----	1
12th week	Travel medicine	A1,A2 D1,2,3,4	1	3	-----	4
13th weeks	Communication in family practice (Taking history)	C2, D1,2,3,4	1	3	-----	4
14th week	Communication in family practice	C2, D1,2,3,4	1	3	-----	4
15th week	Vaccination along human life cycle (obligatory&non-obligatory)	D1,2,3,4	1	-----	3	4
16th week	Anticipatory care ( health promotion)	B2,3, D1,2,3,4	1	-----	-----	1
17th week	Principles of home visits	B5, D1,2,3,4	1	----	-----	1
18th week	Patient compliance	A3,B1 D1,2,3,4	1	-----	-----	1

19th week	Referral in family practice	A2,B1,C1 D1,2,3,4	1	3	-----	4
20th week	Counseling in family practice	A4 D1,2,3,4	1	1	-----	2
21 week	Screening in family practice	A4 D1,2,3,4	1	3	-----	4
22 week	Health team & management in family practice	A2 D1,2,3,4	1	3	-----	4
23 Week	Patient education	D1,2,3,4	1	2	-----	3
24 Week	Infection control in family practice	A2,3 D1,2,3,4	1	-----	-----	1
25 week	Quality dimension & accreditation in family health care facilities	A5 D1,2,3,4	1	-----	-----	1
26 week	Audit & Clinical guidelines	A5 D1,2,3,4	1	3	-----	4
27 week	Integrated seminar (community health problems)	D1,2,3,4	1	-----	-----	1
28 week	Integrated seminar (ophthalmology related problems)	D1,2,3,4	1	-----	-----	1
29 week	Integrated seminar (otolaryngology related problems)	D1,2,3,4	1	-----	-----	1
30 week	Integrated seminar (forensic & toxicology related problems)	D1,2,3,4	1	-----	-----	1
Total			30	48	12	90

#### **4- Teaching and learning methods**

1. Lectures for acquisition of knowledge: Two large groups, each group once /week
2. Seminars: with integration with other departments of the faculty
3. Practical classes: including role Play, case studies, and problem solving.
4. Field Trips: visits to family health center, once every week during the practical classes for each group

#### **5- Student Assessment:**

### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding and intellectual skills</b>
<b>Practical examination</b>	<b>Assessment of knowledge, understanding and practical skills</b>
<b>Structured Oral examination</b>	<b>Assessment of knowledge, understanding , attitude &amp; general skills.</b>

### **C- Assessment schedule**

End round examination: written assessment at the end of each round.

Final examination: Final-term assessment at the end of the academic year by written examination, oral examination and practical examination (OSPE).

### **Matching ILOs with teaching methods and assessment of students:**

<b>ILOs</b>	<b>Teaching methods</b>	<b>Assessment</b>
<b>Knowledge:</b>		
<b>A1</b>	- Lectures, presentations by students	Define, enumerate
<b>a2</b>	- Lectures, small group discussion, field visits	List, draw, problem solving
<b>a3</b>	- Role play, case study	Problem solving

<b>A4</b>	- Role play, case study	Oral exam, problem solving
<b>a5</b>	- Lectures	List, define
<b>Intellectual skills:</b>		
<b>B1</b>	Lecture, role play, case study, small group discussion, field visits	OSPE
<b>B2</b>	Role play, field visits	Oral exam
<b>B3,4</b>	Role play, small group discussion	Problem solving
<b>Professional and Practical Skills:</b>		
<b>C1,2,3</b>	Role play, field visits, lectures, field visits	Problem solving, complete,
<b>General and Transferable Skills:</b>		
<b>D1</b>	Role play, case study, small group discussion	Problem solving, complete, enumerate
<b>D2</b>	Lectures, role play	Oral exam with problem solving
<b>D3</b>	Small group discussion, field visits	Group presentation

### **D- Weighting of assessments**

EXAMINATION	MARKS ALLOCATED
Final examination	25 marks (50%)
Periodical assessment	10 marks (20%)
Practical	5 marks (10%)

Oral exam	10 marks (20%)
Total	50 marks (100%)

### **E- Grading system:**

The minimum passing score is 25 marks provided that at least 7.5 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **F- Final Examination Description:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	One hour written paper	25
Final Practical examination	OSPE (Slides and stations)	5
Oral Final examination	One session	10

### **6- List of references**

- 1- Course notes  
Departmental book
- 2- Essential books (text books):  
Rakel., R. Textbook of Family Practice 6th edition W.B. Saunders Company Philadelphia London Toronto Montreal Sydney Tokyo 2008.
- 3- Recommended books  
South- Paul ., J.E. Matheny., S.C. Lewis ., E.L .Current Diagnosis & treatment Family Medicine 2nd edition A lange Medical book2008.  
Practice Guidelines for family physicians 2007
- 4- Periodicals, Web sites, ... etc  
Journal of the American Academy of Family Physicians

### **7- Facilities required for teaching and learning**



Lecture halls  
Halls for clinical rounds  
Field trips

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Safa Hamdy Alkalash

**Signature**.....**Date** .....

**Head of Department:**

**Name:** Prof. Dr. Hala Shaheen

**Signature**.....**Date**.....



## Internal Medicine & specialties

**University: Menoufia**

**Faculty: Medicine**

### A-Administrative information

**Course Title : Internal Medicine**

**Code: MFM-V 01**

**Department offering the course: Internal Medicine Department**

**Program on which the course is given : M.B.B.Ch Program**

**Academic year/level : 5<sup>th</sup> Year**

**Date of specification : 2006**

**Date of specification/revision : 2017**

**Date of approval by Departmental and Faculty Council: August 2017**

**Taught hours**

**Lectures: 216 Practical/tutorial: 220 Total: 436**

### B- Professional Information

#### 1 – Overall aims of course:

- a) To support acquisition of knowledge and understanding of health and its promotion, and of disease, its prevention and management, in the context of the whole individual and his or her place in the family and in society.
- b) To enable the student to acquire and become efficient in basic clinical skills such as obtaining a patient's history, undertaking a comprehensive physical and mental state examination, interpreting the findings and constructing diagnostic and treatment plans. The student should be competent in the performance of a limited number

of basic technical procedures and become proficient in listening and responding to patients concerns.

- c) To enable students to acquire diagnostic, problem solving and decision-making skills necessary for proper evaluation and management of common diseases and emergencies.
- d) Awareness and participation the social and community aspects of health care.
- e) Lifelong learning competencies necessary for continuous professional development.

## **2- Intended Learning Outcomes:**

*By the end of the internal medicine course, the student will be able to:*

### **a- Knowledge and Understanding:**

By the end of the internal medicine course, the student will be able to:

- a1.** Describe the pathophysiology and manifestations of hypothalamic pituitary disorders and diabetes inspidus
- a2.** Outline the etiology, presentation and management of hypothyroidism and hyperthyroidism
- a3.** Define the types, presentation and management of hyperparathyroidism and hypoparathyroidism
- a4.** Identify the pathophysiology, classification, complications and treatment of diabetes mellitus and diabetic emergencies
- a5.** Describe different disorders of suprarenal gland and their management.
- a6.** Recognize the pathophysiology of disorders of reproduction and their management.
- a7.** Describe physiology of puppetry and list causes , interpret laboratory investigation needed for diagnosis and formulate a plan for treatment of delayed and precious puberty, hirsutism and gynecomastia.
- a8.** Identify causes, clinical manifestation and complication of obesity and different management options
- a9.** Outline the approach for management of non diabetic endocrinal emergencies

- a10.** Describe the structure and function of the kidney
- a11.** Identify different types of glomerulonephritis whether acute or chronic including Lupus nephritis and tubulointerstitial nephritis with their presentation and management
- a12.** Outline pathophysiology of chronic kidney disease and diabetic nephropathy with its relation to hypertension and approach for management.
- a13.** Define the basics of acid base balance and causes and treatment of electrolyte imbalance.
- a14.** Explain the principles of renal replacement therapy and its indications.
- a15.** Describe the pathophysiology of polycystic kidney disease and its presentation and management
- a16.** Outline the etiology and presentation of acute kidney injury with effect of drugs on the kidney.
- a17.** Define the etiology, presentation and management of nephrotic syndrome
- a18.** Identify different causative organisms for urinary tract infections and their presentation and management
- a19.** Outline the pathophysiology of esophageal motility disorders and gastroesophageal reflux diseases and their clinical picture and treatment options.
- a20.** Describe the pathology of peptic ulcer disease and its relation to H pylori and approach for management.
- a21.** Define malabsorption syndrome with its causes and management
- a22.** Recognize the pathology, clinical picture and treatment of ulcerative colitis and crohn disease
- a23.** Identify the causes and management of functional colonic disorder
- a24.** Outline the risk factors, types, clinical picture and treatment of different types of G.I.T malignancy.
- a25.** Describe different pancreatic diseases, gall bladder disease with differential diagnosis of jaundice.
- a26.** Identify the clinical picture, differential diagnosis and treatment of different hepatic disorders including acute, chronic hepatitis and fatty liver.

- a27.** Recognize the pathophysiology of different hepatic complications including liver cirrhosis, liver cell failure and focal hepatic lesions
- a28.** Identify the etiology and management of ascites & different peritoneal diseases
- a29.** Explain the basic mechanisms of different immunological disorders including autoimmunity, immunodeficiencies in adults, allergy and anaphylaxis
- a30.** Define the clinical picture, investigations and treatment of different connective tissue disorders including rheumatoid arthritis, SLE, rheumatic fever and sjogren syndrome
- a31.** Identify the pathology, presentation and treatment of antiphospholipid syndrome and spondyloarthropathies
- a32.** Describe the clinical picture and treatment of scleroderma, dermatomyositis , overlap syndrome and MCT disease
- a33.** Outline the differential diagnosis and management of systemic vasculitis, behcet disease and sarcoidosis
- a34.** Define crystal arthropathies and osteoporosis with their etiology and treatment
- a35.** Recognize the biochemical, cytogenetic and molecular genetic basics that are necessary for the explanation of several hematological diseases.
- a36.** Describe different red cell disorders and platelet disorders with their etiology, presentation and treatment.
- a37.** Identify the differential diagnosis of coagulation disorders with their approach for diagnosis and treatment.
- a38.** Describe the presentation, investigation and approach for treatment of myelodysplastic syndrome, lymphoproliferative neoplasms, acute leukemias and plasma cell dyscrasis
- a39.** Recognize the pathophysiology, presentation and treatment of spleen and myeloproliferative neoplasms
- a40.** Identify the causes for bone marrow failure and the indications and principles of bone marrow transplantation
- a41.** Explain the basics of genetics and genetics of medical diseases and gene therapy
- a42.** Outline the principles of clinical nutrition and etiology and management of malnutrition disorders in adults

**a43.** Define shock, its types and approach for management

**b- Intellectual skills:**

- b1.** Analyze efficiently case scenarios and refer to the most appropriate diagnosis and possible differential diagnosis
- b2.** Interpret the results of basic laboratory and radiological investigations including hematological profile, arterial blood gases data, liver and kidney function tests.
- b3.** Select different drugs based on the patient condition and in different situations

**c- Professional Skills:**

- c1.** Take a thorough history of appropriate depth and detail, relative to the clinical context.
- c2.** Perform a complete general examination for the patient including state consciousness, vital signs, vital colors and regional examination.
- c3. Perform** problem-focused physical examination.
- c4.** Diagnose urgent life-threatening conditions, that need appropriate initial management.

**General and transferable skills:**

By the end of the internal medicine Program, the student will be able to:

- d1.** Apply skills of communications with fellows, patients and their relatives .
- d2.** Use different sources for information and knowledge e.g. through the internet.
- d3.** Work in a team work , Develop rules and indicators for assessing the performance of others perform continuous medical education
- d4.** Establish rapport and trust with the patient. Bbbbbbb uu im
- d5.** Develop critical appraisal skills and use of evidence based guidelines in making decisions about the care of patients

### 3- Course contents:

#### I- Internal medicine

	Lecture Hours	Tutorial	Practical hours	Total
1 -General medicine(Genetics + shock +nutrition + general examination +revision)	10		15	25
2- Rheumatology and immunology	16	3	21	40
3-GIT & Liver	20	3	27	50
4-Endocrinology	16	3	21	40
5- Hematology & Oncology	16	3	21	40
6- Nephrology	16	3	21	40
<b>TOTAL</b>	<b>94</b>	<b>15</b>	<b>126</b>	<b>235</b>

#### II- Medicine specialties

BRANCH	Lecture Hours	Tutorial/Practi cal Hours	Total
Cardiology	15	20	48
Neurology	21	30	50
Chest	15	20	45
Tropical	15	20	43
Dermatology	24	30	54
Clinical pathology	16	-	46
<b>Total</b>	<b>106</b>	<b>180</b>	<b>286</b>

## Detailed Topics

### I- **Internal Medicine**

#### **ENDOCRINOLOGY & METABOLISM (16)**

- End.1:Hypothalamic pituitary disorders 1
- End 2: Hypothalamic pituitary disorders 2
- End 3 : Diabetes inspidus
- End 4 : Hypothyroidism
- End 5 : Hyperthyroidism
- End 6 : Hyperparathyroidism
- End 7: Hypoparathyroidism
- End 8: : def and classification of diabetes mellitus
- End 9 : complications of DM
- End 10: ttt of DM
- End 11: Suprarenal gland1
- End 12: Suprarenal gland 2
- End 13: Reproductive endocrinology
- End 14: Obesity
- End 15: Non diabetic endocrinal emergencies
- End 16: Diabetic emergencies

#### **NEPHROLOGY COURSE (16)**

- N1 structure and function of the kidney
- N2 Glomerulonephritis
- N3 CKD
- N4 Renal replacement therapy
- N5 electrolyte imbalance

- N6 Acid base balance
- N7 Diabetic nephropathy
- N8 Lupus nephritis
- N9 PCKD
- N10 HTN and CKD
- N11 AKI
- N12 Drugs and kidney
- N13 TIN
- N14 Nephrotic syndrome
- N15 UTI
- N16 acute and chronic GN

### **G.I.T & LIVER COURSE (20)**

- GIT 1:- GERD
- GIT 2 :- Peptic ulcer disease 1
- GIT 3:- Peptic ulcer disease and H pylori 2
- GIT 4:- malabsorbtion syndrome 1
- GIT 5:- malabsorbtion syndrome 2
- GIT 6 :- ulcerative colitis
- GIT 7:- functional colonic disorder
- GIT 8:- G.I.T malignancy
- GIT 9 :- pancreatic diseases
- GIT 10 :- gall bladder disease
- GIT 11: crohn disease
- GIT 12 : esophageal motility disorders
- GIT 13:- jaundice



- GIT 14 :- acute hepatitis
- GIT 15: chronic hepatitis
- GIT 16 :- Fatty liver
- GIT 17:- focal hepatic lesions
- GIT 18 : liver cell failure
- GIT 19:- Ascites & peritoneal disease
- GIT 20 : liver cirrhosis

### **RHEUMATOLOGY and immunology COURSE (16)**

- Rh 1:- rheumatoid arthritis
- Rh 2 :- rheumatic fever and sjogren syndrome
- Rh 3 : SLE
- Rh 4 : Antiphospholipid syndrome
- Rh 5 : spondyloarthropathies 1
- Rh 6 : spondyloarthropathies 2
- Rh 7:- scleroderma
- Rh 8 :- dermatomyositis , overlap syndrome and MCT disease
- Rh 9: systemic vasculitis
- Rh 10:- behcet disease and sarcoidosis
- Rh 11 : crystal arthropathies
- Rh 12 : osteoporosis
- Rh 13 : immunological disorders , autoimmunity
- Rh 14 : autoinflammatory disorders
- Rh 15 : Immunodeficiencies in adults
- Rh 16 : allergy and anaphylaxis

### **HAEMATOLOGY & ONCOLOGY COURSE (16)**

- Haem1 Red cell disorders 1
- Haem 2 Red cell disorders 2
- Haem 3 Red cell disorders 3
- Haem 4 platelet disorders 1
- Haem 5 platelet disorders 2
- Haem 6 coagulation disorders 1
- Haem 7 coagulation disorders 2
- Haem 8 myelodysplastic syndrome
- Haem 9 plasma cell dyscrasis 1
- Haem 10 plasma cell dyscrasis 2
- Haem 11 lymphoproliferative neoplasms 1
- Haem 12 lymphoproliferative neoplasms 2
- Haem 13 spleen
- Haem 14 myeloproliferative neoplasms
- Haem 15 Bone marrow failure and bone marrow transplantation
- Haem 16 Acute leukemias

**GENERAL MEDICINE(GENETICS + GERIATRICS  
+NUTRITION + GENERAL EXAMINATION +REVISION) (10)**

- Gen1 Basics of genetics and genetics of medical diseases
- Gen2 Gene therapy
- Gen3 clinical nutrition
- Gen4 malnutrition disorders in adults
- Gen5 shock
- Gen6 shock
- Lect 7 revision

Lect 8 revision

Lect 9 revision

Lect 10 revision

## **Clinical training Course**

**(10 weeks) in internal medicine and (12 weeks) in medicine specialties**

### **Basic clinical internal medicine training:**

- History taking
- General Examination

### **Gastroenterology case taking & Examination:**

- upper GIT symptoms
- hepatobiliary symptoms
- local abdominal examination

### **Nephrology case taking & Examination:**

- renal examination
- Patient with raised kidney function
- proteinuria and hematuria
- renal investigation interpretation

### **Endocrinology case taking & Examination:**

- Diabetes
- Cushing syndrome
- hyperthyroidism
- hypothyroidism
- hypopituitarism

- Acromegaly
- delayed puberty
- precocious puberty

### **Hematology case taking & Examination:**

- History taking and examination of hematological cases
- approach to anemia
- Bleeding disorders
- Thrombotic disorders
- spleen and lymph node

Pancytopenia Bone marrow examination

### **Rheumatology case taking & Examination:**

History of rheumatological disease

- Joint examination
- Rheumatoid arthritis + hand examination
- Systemic lupus erythematosus

## **4 – Teaching and learning methods**

4.1 Illustrated Lectures

4.2 Clinical Rounds

4.3 Problem Based Learning

3.4 Assignments for clinical round activities:

The student should conduct:

- **Presentation** of 5 clinical cases of different systems.
- **Writing an essay**

About 10 pages on one common medical subject e.g.,  
bleeding tendency, hemolytic anemia, purpura, lymphomas  
etc.....

- **Attendance and making a short report about:**
  - a. 5 different cases from Outpatient Clinic
  - b. 5 different cases from the Emergency Room (ER)
  - c. 5 different cases from the Intensive Care Unit (ICU)
  - d. 2 different cases from Special Unites (S.U), (Endoscope, Haemodialysis & Ultrasound)
  
- **Observation of at least 5 bedside procedures in the internal medicine wards:**, e.g., ECG making, paracentesis, IV line and cannulation, upper GIT tubes ( ryle & sungestaken) blood sampling, enema, catheterization, etc.

## **5- Student assessment**

### **A- Attendance criteria**

The minimal acceptable attendance is 75%. Students who fail to attend that percentage of activities will not be allowed to apply for final written examination

### **B- Assessment tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written exam</b>	For assessment of knowledge, understanding and intellectual skills
<b>Clinical Cases Exam</b>	For assessment of practical skills
<b>Oral examination:</b>	For assessment of knowledge, understanding, intellectual and general skills
<b>Log Book</b>	For assessment of general skills

### **C- Assessment schedule:**

Assessment 1	End Round Exam	week 8 <sup>th</sup>
Assessment 2	Log book*	During clinical round course
Assessment 3	Final Written Exam	the end of the year
Assessment 4	Oral Exam	the end of the year
Assessment 5	Clinical Exam	the end of the year

• **log Book activities schedule**

Presentation	essay <sup>(*)</sup> (10pages)	Attendance <sup>(**)</sup> and making a short report on				Observation
Clinical cases						
5 different cases during the clinical round	Common medical subject e.g.: <ul style="list-style-type: none"> <li>• Bleeding tendency</li> <li>• Hemolytic anemia</li> <li>• Purpura</li> <li>• Lymphomas</li> <li>• Etc....</li> </ul>	5	5	5	2	5 bedside procedures e.g.: <ul style="list-style-type: none"> <li>• ECG</li> <li>• Paracentesis</li> <li>• IV line &amp; cannula</li> <li>• Upper GIT tubes (rhyle &amp; sungestaken)</li> <li>• Blood sampling</li> <li>• Enema</li> <li>• Catheters</li> <li>• Etc...</li> </ul>

End Round exam ( general medicine and lectures attendance )	10%
End round exam special medicine	10%



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الجودة

Final-term written exam	50%
Oral exam	9%
Practical exam	21%
Total	100%

### Weighting details :

Exam	Subtotal	Subtotal
<b>End round Exam</b>		
<ul style="list-style-type: none"> <li>Internal medicine end round exam.</li> </ul>		<b>75</b>
<ul style="list-style-type: none"> <li>Lectures attendance</li> </ul>		<b>15</b>
<ul style="list-style-type: none"> <li>End of specialty clinical rounds</li> </ul>		<b>70</b>
<ul style="list-style-type: none"> <li>End of Dermatology Round</li> </ul>		<b>20</b>
Final	Written Paper (1)	<b>130</b>
	Written Paper (2)	<b>130</b>
	Written Paper (3)	<b>130</b>
	Dermatology(written)	<b>30</b>
	Clinical Pathology(written)	<b>30</b>
	Long case	<b>50</b>
	OSCE	<b>80</b>
	2 Oral exam sessions	<b>80</b>
	Dermatology(clinical &oral)	<b>60</b>
	Clinical Pathology(Practical)	
<b>Total</b>		<b>900</b>

**Weighting of log book , essay and lecture attendance**

	<b>Log book</b>	<b>essay<sup>(*)</sup> (10pages)</b>	<b>Attendance<sup>(**)</sup> and making a short report on</b>
Marks Total =20	5	10	5

### **E. Grading system:**

- The **minimum passing score** is 540 marks, 135 marks must be obtained in the final written exam.
- Passing grades are as follows:
  - o Excellent : 85% and above.
  - o Very good : 75% up to below 85%.
  - o Good : 65% up to below 75%.
  - o Pass : 60% up to below 65%

### **F- Final Examination Description**

Exam	Description	Marks
Written	Written Paper (1)	<b>130</b>
	Written Paper (2)	<b>130</b>
	Written Paper (3)	<b>130</b>
	Dermatology(written)	<b>30</b>
	Clinical Pathology(written)	<b>30</b>
Clinical and oral	Long case	<b>50</b>
	OSCE	<b>80</b>
	2 Oral exam sessions	<b>80</b>
	Dermatology(clinical &oral)	<b>60</b>
	Clinical	



## 6- List of references

1- Essential books (text books);

Clinical Medicine **KUMMAR and CLARK.**

**DAVIDSON'S** Principles and Practice of Medicine

2- Recommended books ;

**HUTCHISON'S** Clinical Methods

Clinical Examination, **MACLEOD, MUNRO**

1000 MCQs for **DAVIDSON'S** Principles and Practice of Medicine

3- Periodicals, Web sites, etc ;

[WWW.emedicine.com](http://WWW.emedicine.com)

[WWW.sciencedirect.com](http://WWW.sciencedirect.com)

[WWW.1ww.com](http://WWW.1ww.com)

## 7- Resources / Facilities required for teaching and learning to achieve the above ILOs

1. Lecture halls in the faculty (Board, Overhead projector & Data show are available).
2. Round halls in the department at the hospital where facilities
3. General Library of the faculty.
4. Training in Menoufia university hospital and emergency unit

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

### Course coordinators:

**Name:** Dr. Emad M. El-Shebiny

**Signature**.....**Date** .....

### Head of Department:

**Name:** Prof. Dr. Abdo-alah El bahnacy

**Signature**.....**Date**.....

.....

# Neuropsychiatry

**University: Menoufia**

**Faculty: Medicine**

## **A-Administrative information**

**Course title: Neuropsychiatry**

**Code NO.: MFM-V 01/Spec1**

**Department offering the course: Neuropsychiatry department**

**Academic year level: 5<sup>th</sup> year.**

**Date of specification: 2017**

**Date of approval by Departmental and Faculty Council: August 2017**

**Taught hours: Lecturers 21 hours + Tutorial & clinical: 30 hrs  
Total: 51 hours**

## **B-Professional information:**

### **1- Aim of the course:-**

The course provide the students with knowledge , skills and attitudes regarding basic neurologic disorders and basic psychiatric disorders

### **2 - Intended learning outcome.**

#### **a- Knowledge and Understanding:**

By the end of the course students should be able to

- a1.** Define neurologic and mental diseases and describe their diagnostic criteria
- a2.** Explain epidemiology of diseases and masters classifications of different diseases
- a3.** Apply neurophysiology, neuro-biochemistry, neuroanatomy, neuropathology, neuropharmacology as an etiological basis of diseases and to utilize in treatment of them
- a4.** Apply understanding of descriptive psychopathology (signs and symptoms in clinical diagnosis) and to identify the salient diagnostic features of each disorders
- a5.** Apply each symptom or sign to the related brain circuit

- a6. Identify the neurotransmitters concerned with each sign and symptom
- a7. Identify risk factors for each disease or disorder
- a8. Explain outcome and prognosis of each disease or disorder
- a9. Outline different Investigations in order of importance , to decide the most important of them and to interpret diagnostic tests( ECG, electroencephalogram (EEG), blood tests, radiographs, computed tomography (CT) and magnetic resonance imaging (MRI) scans.
- a10. outline different treatment modalities of each disease or disorder
- a11. List the most common diseases in the locality
- a12. explain mechanism of action , pharmacokinetic, therapeutic window , dosage for each disorder and therapeutic indication of drugs.

### **b- Intellectual skills:**

By the end of the course, students will acquire the skills acquired to :

- b1. Demonstrates cultural sensitivity in clinical situations
- b2. Establishes productive doctor-patient relationship that enable him to collect relevant information
- b3. Identify significant problem/need of patient (problem oriented management: eg compliance, risk, no social support, pregnancy)
- b4. Establish a reliable therapeutic alliance
- b5. Collect, analyze and organize relevant information that concludes into a diagnostic formulation
- b6. Construct differential diagnosis in order of importance and to identify the most significant characteristic feature of each of them
- b7. Compare and differentiate between each differential diagnosis
- b8. formulate a diagnosis and design a proper management plan

### **c- Practical and clinical skills:**

By the end of the course, students should be able to :

- c1. Take a comprehensive history for neurological and some mental cases.
- c2 Perform techniques to illicit each symptom including sexual dysfunction of a patient on psychotropic drugs from his or her partner, risk of deliberate self-harm and suicide in a variety of settings and risk of aggression/violence in a variety of settings

**c3.** Elicit features of chronic fatigue syndrome, delusion symptoms , perceptual symptom, and anxiety symptoms, insight and judgment, depressive symptoms ,sleep disorders, depersonalization, symptoms of post-natal depression, maternity blues, puerperal psychosis.

**c4.** Take collateral history from relatives/carers regarding schizophrenia, depression, bipolar affective disorder, dementia, substance misuse, etc. ,addictive symptoms ,history of seizures in a patient on clozapine, phenothiazines or tricyclic and other antidepressant drugs.

**c5.** Assess a patient's wellbeing in the clinical setting.

**c6.** Perform clinical physical medical ,neurologic and fundus examination and to explain their actions to the examiner and the patient

**c7.** Assess extrapyramidal side effect

**c8.** Manage cases of emergencies.

#### **d- General and transferable skills:**

By the end of the course, the students should be able to: apply and utilize different communication skills including:-

**d1.** Establish rapport

**d2.** Practice active listening.

**d3.** Involve patients/carers in decision making and checking their understanding.

**d4.** Establish patient's beliefs, concerns, fears and expectations and addressing them.

**d5.** Establish the relative's beliefs, concerns, fears and expectations and addressing them.

**d6.** Communicate with other healthcare professionals, e.g. discussing a patient with a senior medical colleague.

**d7.** Break bad news, building rapport and showing empathy, respect and sensitivity to others' emotions and coping with strong emotions of other people.

**d8.** Deal with anxious or angry patients or carers with different complaints.

**d11.** Give advice on lifestyle, health promotion or risk factors.

### **3- Course contents:**

**1-Lecturers:** 1 hour for each lecture

1-stroke

2-peripheral neuropathy

3-paraplegia

4-epilepsy

5-multiple sclerosis

6-ataxia

7-muscle and neuromuscular junction diseases

8-movement disorders

9-cranial nerve diseases

10-hemiplegia

11- anxiety disorders( generalized anxiety disorder, panic disorder)

13- bipolar and related disorders( manic , hypomanic, cyclothymic)

14-depressive disorders

15- sleep disorders ,sleep stages,and polysomnography

16-addiction( cannabinoids, opioids, tramadol and benzodiazepines)(tutorial)

17-medically unexplained symptoms, non organic pain,chronic fatigue syndrome, psychosomatic diseases

18-child and adolescent psychiatry(autistic spectrum-attention deficit hyperactivity disorders ,learning disabilities,motor skill and coordination disorders, eating and feeding disorders, tic disorders, elimination disorders,mood and anxiety disorders)

19-women's mental disorders( premenstrual dysphoric disorder, psychological reaction to abortion, postpartum depression, postpartum psychosis, peri menauposal depression, peri menauposal insomnia)

20-dementia, delirium, and amnesic disorders

21-emergency psychiatry( neuroleptic malignant syndrome,suicide, self harm, violent patient, anorexia nervosa, post traumatic stress disorder)

22- psychopharmacology( atypical antipsychotic , serotonin reuptake inhibitors)

**2- Clinical rounds and tutorial:** 2 hours daily / week for 3 weeks (30 hours).

1. Full history taking .
2. Full general and medical examination
3. Neurologic examination
4. Mental examination examination , risk assessment and emergency management.
5. Differential diagnosis of the case.
6. Final diagnosis, anatomical, etiological, functional, pathological and complications
7. Headache (tutorial)

#### **4) Teaching and learning methods**

##### **1- Teaching methods:**

- a- Lectures: the lectures are given in the lecture hall as determined by the faculty administration 7lectures weekly (1 hour) for 3 weeks for each group.
- b- Tutorial: are given in the lecture hall as determined by the faculty administration 1 weekly for 3 weeks for each group.
- c- Clinical rounds: 2 clinical rounds daily each one 2 hours in special hall for clinical teaching all over the year (12 weeks).

##### **2- Time plan:**

**Lecture:** weekly ( Thursday- Wednesday- Tuesday)– 2 hour for 3 weeks

**Tutorial:** Once weekly for 3 weeks

**Clinical :** Once daily – 2 hours– 3 weeks

#### **5-Student Assessment**

##### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

##### **B. Assessment Tools:**

TOOL	PURPOSE
Written examination	Assessment of knowledge, understanding and intellectual skills
Clinical examination(OSCE)	Assessment of knowledge, understanding and clinical skills
Oral examination	Assessment of knowledge, understanding , attitude & general skills.

### **C- Assessment schedule**

- End round at the end of the round
- Final written examination held at the end of academic year for all students within the internal medicine exam

### **D- Weighting of assessments**

End round exam: 22 marks (20 marks for OSCI-10marks neurology,10marks psychiatry - , 2 for attendance)

Final examination (within internal medicine exam)

- 1 Written exam (40 marks)
- 2 Oral exam (within internal medicine exam)
- 3 Clinical exam (within internal medicine exam)

### **6- List of references:**

- 1- Essential books:
  - a. Ultimate review for the neurology boards
  - b. Kaplan and sadocks handbook of psychiatry
- 2- Text books:
  - a. Current clinical neurology
  - b. MRCPsych: preparation for the CASC

### **7- Facilities required for teaching and learning:**



1. Lecture halls in the faculty (Board, Overhead projector & Data show are available).
2. Round halls in the department at the hospital where facilities
3. General Library of the faculty.
4. Training in Menoufia university hospital and emergency unit

We certify that all of the information required to deliver this course is contained in the above specification and will be implemented

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Khaled Maarooof

**Signature**.....**Date**  
.....

**Head of Department:**

**Name:** Prof. Dr. Lamyaa Gamal Eldin Elhamrawy

**Signature**.....**Date**.....



# Cardiology

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Course title:** cardiology

**Code NO.:** MFM-V 01/Spec 2

**Department offering the course:** Cardiovascular department

**Academic year level:** 5<sup>th</sup> year.

**Date of specification:** 2017

**Date of approval by Department council and Faculty council:** August 2017

**Teaching hours:** Lectures: 15 hours      Clinical and Tutorial: 20 hours  
**Total :** 35 hours

## B - Professional Information

### 1- Aim of the course:-

By the end of the course the student will:

- a) Reach a provisional diagnosis for different cardiac diseases by adequate history taking, clinical examination and ordering the proper investigations.
- b) Design a management plan for different cardiac emergencies .

### 2- Intended learning outcome.

#### a- Knowledge and understanding:

**By the end of the course students should be able to :**

- a1. Outline the pathogenesis and manifestations of rheumatic fever.
- a2. Describe the types, causes and management of endocarditis.
- a3. Recognize the types, causes and management of arrhythmia.
- a4. Explain the pathogenesis, types and management of cardiac ischemia
- a5. Recognize different vascular diseases with the underlying

mechanisms, causes, risk factors and pathogenesis .

a6. Outline the basics of resuscitation for cardiac emergencies.

a7. Explain the pathogenesis, types and management of pericardial diseases.

a8. Describe the pathogenesis, causes and management of heart failure and cardiomyopathy.

a9. Define the causes, manifestations and treatment of pulmonary embolism.

a10. Outline the types, causes and management of hypertension.

### **b- Intellectual skills:**

**By the end of the course, students will acquire the skills acquired to :**

**b1.** Interpret the different cardiac symptoms and signs .

**b2.** Interpret basic ECG findings.

**b3.** Integrate the clinical data with data obtained from investigations to reach a provisional diagnosis.

### **c- Practical and clinical skills:**

**By the end of the course, students should be able to:**

**c1.** Take an adequate history from a cardiac patient.

**c2.** Perform a comprehensive examination for cardiac patient with emphasis on auscultation of the heart.

**c3.** Demonstrate the skills of basic life support .

**c4.** Formulate a management plan for different cardiac conditions.

### **d- General and transferable skills:**

**By the end of the course, the students should be able to:**

**d1.** Present clinical information in oral or written forms.

**d2.** Work in a team and communicate ideas simply.

**d3.** Communicate with patients and their relatives in a clear sensitive manner.

**d4.** Apply the skills of scientific research.

## **3- Course contents:**

Topic	ILOs Covered	Theoretical hours	Practical hours	Tutorial hours	Total hours
History taking and symptomatology	d-1, d-3 , c-1 , c-2	1	2.5		3.5

<b>Examination</b>	d-1, d-3 , c-1 , c-2		2.5		2.5
<b>Rheumatic fever</b>	a-1, b-1 , b-3	1			1
<b>Infective endocarditis</b>	a-2, b-1 , b-3	1			1
<b>Arrhythmias</b>	a-3, b-1 , b-3	1			2
<b>STEMI/ NON STEMI</b>	a-4, c-5, b-1 , b-3	1		1	2
<b>Valvular</b>	a-5, b-1 , b-3	1			1
<b>Resuscitation</b>	a-6, c4	1			1
<b>Pericardial diseases</b>	a-7, b-1 , b-3	1			1
<b>Heart failure</b>	a-8, b-1 , b-3	1		1	2
<b>Cardiomyopathy</b>	a-8, b-1 , b-3	1			1
<b>Pulmonary embolism</b>	a-9, b-1 , b-3	1			1
<b>Hypertension</b>	a-10, b-1 , b-3	1			1
<b>Vital signs and local examination</b>	d-1, d-3 , c-1 , c-2		2.5		2.5
<b>Auscultation</b>	d-1, d-3 , c-1 , c-2		2.5		2.5
<b>Skill lab</b>	d-1, d-3 , c-1 , c-2		5		5
<b>Clinical cases</b>	d-1, d-3 , c-1 , c-2		5		5
<b>ECG</b>	C3, b-2			1	1
<b>Total</b>		12	20	3	3

#### **4- Teaching and learning methods**

##### **1- Teaching methods:**

- a- Lectures: the lectures are given in the lecture hall as determined by the faculty administration  
Tutorial: are given in the lecture hall.
- b- Clinical rounds: 2 clinical rounds daily each one 2hours in special hall for clinical teaching.
- c- Skill lab.

##### **2- Time plan:**

**Lecture:** Once daily – 1 hour – 3 weeks

**Clinical** : Once daily – 2 hours– 2 weeks

**Tutorial:** Once weekly within the clinical round

### **5- Student assessment:**

#### **A- Attendance criteria:**

The minimal acceptable attendance is 75% as determined by faculty administration. Students who fail to attend that percentage of activities will not be allowed to apply for final written examination.

#### **B- Assessment tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding and intellectual skills</b>
<b>Practical examination</b>	<b>Assessment of knowledge, understanding and practical skills</b>
<b>Oral examination</b>	<b>Assessment of knowledge, understanding , intellectual skills, attitude &amp; general skills.</b>

#### **C- Assessment Schedule**

- a End round clinical examination held every 3 weeks (16 marks)
- b Final examination held at the end of academic year for all students as part of final internal medicine exam
  - 1 Written examination (35 marks)
  - 2 Clinical examination
  - 3 Oral examination

#### **D- Weighting of assessment:**

- a End round clinical exam: 16 marks
- b Final examination (within internal medicine exam)

- 4 Written exam (30 marks)
- 5 Oral exam
- 6 Clinical exam

#### **6- List of references:**

- a) Essential books

Elgendy

- b) Text books:

Topol

Oxford American cardiology.

#### **7- Facilities required for teaching and learning:**

1. Lecture halls in the faculty (Board, Overhead projector & Data show are available).
2. Round halls in the department at the hospital where facilities
3. General Library of the faculty.
4. Training in Menoufia university hospital and emergency unit

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

#### **Course coordinators:**

**Name:** Dr. : Walaa Farid

**Signature**.....**Date** .....

#### **Head of Department:**

**Name:** Prof. Dr. : Halaa Mahfouz Badran

**Signature**.....**Date**.....

.....

## Chest diseases and Tuberculosis

University: Menoufia

Faculty: Medicine

### A-Administrative information

Course Title: Chest diseases and Tuberculosis

Code: MFM-V 01/Spec 3

Department offering the course: Chest diseases and Tuberculosis

Program(s) on which the course is given: M.B.B.Ch

Academic year/level: 5<sup>th</sup> year

Date of specification: 2017

Date of approval by Departmental and Faculty Council: August 2017

Teaching hours: Lectures: 15 hours      Clinical and Tutorial: 20  
hours      Total : 35 hours

### B-Professional information

#### 1 – Overall aims of course:

- a) To provide basic essential needed information of different chest diseases and TB.
- b) To ensure essential clinical and practical skills about respiratory medicine

#### 2 – Intended learning outcomes of course (ILOs)

##### a- Knowledge and Understanding:

- a1. Discuss basic anatomy and physiology of respiratory system.
- a2. Identify methods of spread epidemiology, incidence and prevalence of common chest diseases and TB
- a3. Describe the methods of screening ,prevention and control of common chest Ds and TB.
- a4. Outline types, manifestations and treatment of pnemonias
- a5. Explain causes and pathogenesis of interstial pulmonary fibrosis

- a6. Recognize the causes, manifestations and treatment of COPD
- a7. Describe the pathology, manifestations and treatment of tuberculosis
- a8. Outline the etiology, manifestations and management of suppurative lung disease
- a9. Identify the pathology, clinical picture, investigations and treatment for bronchial asthma
- a10. Recognize the types, causes, approach for assessment and treatment for sleep apnea
- a11. Define causes, clinical picture and treatment for pulmonary embolism
- a12. Outline the types, pathogenesis and management of respiratory failure
- a13. Identify the causes and management of pulmonary hypertension
- a14. Describe different types of pleural diseases and their management.
- a15. Identify different compartments of the mediastinum and related disorders.
- a16. Define pathology and approach for management for lung cancer

#### **b- Intellectual skills**

- b1. Select appropriate diagnostic and therapeutic management strategies in acute and chronic chest diseases.
- b2. Select proper drug with adequate dosage for different chest diseases .
- b3. Interpret results of pulmonary functions and chest X-ray in common chest diseases.

#### **c- Practical and clinical skills**

- c1. Practice appropriate history taking in structure and content
- c2. Apply full general and local chest examinations.
- c3. Formulate a proper management plan for common chest t Ds and respiratory critical illness.

#### **d- General and transferable skills**

- d1. Communicate efficiently with patients and their relatives.
- d2. Work in a team work with his colleges.
- d3. Deal with patients and their relatives in a compassionate manner with respect to their rights. d4. Apply the basics of scientific research.

### **3-Course contents**

## **I-lectures**

- 1-Chest symptoms and signs
- 2-pneumonias
- 3-interstitial pulmonary fibrosis
- 4-COPD
- 5-tuberculosis
- 6-suppurative lung disease
- 7- suppurative lung disease part 2
- 8=bronchial asthma
- 9-sleep apnea
- 10-pulmonary embolism
- 11-respiratory failure
- 12-pulmonary hypertension
- 13-pleural diseases
- 14-mediastinum
- 15-lung cancer

## **II-CLINICAL ROUND**

- 1-history taking
- 2-general examination
- 3- local full chest examination (inspection, palpation, percussion and auscultation).
- 4-multiple different case study
- 5-clinical skills and chest x-ray interpretation.

## **III Tutorials**

1. Symptoms and signs



2. Pulmonary function
3. Arterial blood gases
4. ARDS
5. radiology

#### **4- Teaching and learning methods**

1. illustrated lectures
2. clinical rounds
3. problem based learning

#### **5- Student assessment methods**

##### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

##### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding and intellectual skills</b>
<b>Clinical examination(OSCE)</b>	<b>Assessment of knowledge, understanding and clinical skills</b>
<b>Oral examination</b>	<b>Assessment of knowledge, understanding , attitude &amp; general skills.</b>

##### **C- Assessment schedule**

Assessment 1 written exam at end of the year with Internal Medicine Department.

Assessment 2 oral exam at end of year with Internal Medicine Department.

Assessment 3 end round exam at end of round

Assessment 4 clinical and OSCI at end of year with Internal Medicine Department.

### **D- Weighting of assessments**

End round exam: 16 marks (10 marks for oral, 3 for log, 3 for attendance)

Final examination (within internal medicine exam)

- 7 Written exam (30 marks)
- 8 Oral exam
- 9 Clinical exam

### **6- List of references**

#### **1- Essential books (text books)**

Fishmans textbook of chest diseases

FTON textbook of chest diseases

#### **2- Recommended books**

Oxford hand book

Secrets of clinical examination

#### **3- Periodicals, Web sites, etc**

[www.chestnet.org](http://www.chestnet.org)

[www.pubmed.com](http://www.pubmed.com)

### **7- Facilities required for teaching and learning:**

- 1- Lecture halls
- 2- Clinical rounds rooms
- 3- Wards and outpatient clinic of chest department, Menoufia university hospitals



**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Gehan Ali Abdelaal

**Signature**.....**Date** .....

**Head of Department:**

**Name:**           **Prof.**           **Dr.**                           **Ramdan**           **Bakr**

**Signature**.....**Date**.....

# Tropical Medicine

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title: Tropical Medicine**

**Code: MFM-V 01/Spec 4**

**Department offering the course: Tropical Department**

**Program(s) on which the course is given: M.B.B.Ch**

**Academic year/level: 5<sup>th</sup> year**

**Date of specification: 2017**

**Date of approval by Departmental and Faculty Council: August 2017**

**Taught hours:**

**Lecture: 15 hours    Clinical/Tutorial: 20 hours    Total: 35 hours**

## B-Professional information

### **1 – Overall aims of course:**

- a) To make the student Become oriented with different types of microorganisms (viral, parasitic and bacterial ) of medical importance, their characters, mode of infection, pathogenesis, diseases caused by it, methods of diagnosis, prophylaxis and treatment.
- b) To make student aware of the different nosocomial infections, mode of transmission, measures of infection and prevention control.
- c) To Increase awareness of annual epidemics of infectious diseases e.g Swine flu, Bird flu and mumps.

### **2 – Intended learning outcomes of course (ILOs)**

#### **a- Knowledge and understanding:**

**By the end of the course students should be able to :**

- a1. Describe the diagnostic criteria, prophylaxis and treatment of common infectious viral diseases.
- a2. Outline the diagnostic criteria, prophylaxis and treatment of common infectious bacterial diseases
- a3. Identify the diagnostic criteria, prophylaxis and treatment of common infectious parasitic diseases.
- a3. List the most common environmental diseases in the locality, How to diagnose and treatment.
- a4. Define the principles of nosocomial infections with their methods of prevention and infection control.

**b- Intellectual skills:**

**By the end of the course, students will acquire the skills acquired to :**

- b1. Evaluate the risk of disseminating infection in hospital and community through carriers or even health care workers during examinations of patients on doing invasive maneuvers.
- b2. Solve clinical cases and choose the appropriate management of these cases after good analyze of data collected to diagnose these cases.
- b3. Interpret the results of diagnostic tools as pelvi-abdominal ultrasound and upper & lower GIT endoscopy.

**c) Practical and clinical skills:**

**By the end of the course, students should be able to :**

- c1. Practice comprehensive history taking.
- c2. Perform full clinical examination of the patients general and local examination specially abdominal examination.
- c3. Construct the provisional diagnosis after taking full history of the patient.

**D) General and transferable skills:**

**By the end of the course, the students should be able to:**

- d1. Present information in oral or written forms in a clear and concise form.
- d2. Work in a team and communicate ideas simply.
- d3. Use the available resources as library, network and clinical experts to solve the clinical cases.

### 3- Course contents:

#### 1-Lecturers: (15 Hours)

Topic	ILOs covered	Lecture	Practical	Tutorial	Total hours
1-Brucella& typhoid fever.	a-2, b-1, b-2,d-1, d-2	1 hour	1.5 hour		2.5 hours
2-HIV	a-1,a-5,b-1	1 hour	1 hour	-----	2 hour
3-Filariasis	a-3, a-4	1 hour	1.5 hour	-----	2.5 hour
4- Meningitis	a-2,b-1	1 hour	1.5 hour	-----	2.5 hour
5-Schistosomiasis	a-3,a-4,d-2,d-3	1 hour	1.5 hour	1 hour	3.5 hours
6-Amaebiasis	a-3,a-2	1 hour	1.5 hour	-----	2.5 hour
7- Malaria	a-2, a-4	1 hour	1.5 hour	-----	2.5 hour
8-Acute viral hepatitis	a-1,b-1	1 hour	1.5 hour	-----	2.5 hour
9- Chronic viral hepatitis	a-1,a-4,a-5,b-1,b-2,b-3,c-1,d-1,d-2,d-3		1.5 hours	1 hour	2.5 hours
10- H.pylori	a-2	1 hour	1 hour	-----	2 hour
11- Toxoplasma	a-3	1 hour	1.5 hour	-----	2.5 hour
12-Viral hemorrhagic fever	a-1	1 hour	1.5 hour	-----	2.5 hour
13- Kala-azar	a-3	1 hour	1.5 hour	-----	2.5 hour

<b>14-Infectious diarrhea</b>	<b>a-1,a-2,a-3,b-1</b>	<b>1 hour</b>	<b>1.5 hour</b>	<b>-----</b>	<b>2.5 hour</b>
<b>Total</b>		<b>13 hours</b>	<b>20 hours</b>	<b>2 hours</b>	<b>35 hours</b>

## **2-Tutorial:**

Three tutorials within the clinical round

## **3-Clinical rounds:**

- 1 Full history taking .
- 2 Full general examination.
- 3 Abdominal examination, liver, spleen, kidney, Gall bladder.
- 4 Differential diagnosis of the case.
- 5 Final diagnosis, anatomical, aetiological, functional, pathological and complications.
- 6 How to do paracentesis.
- 7 Ideal about old U/S.
- 8 Ideal about gastrointestinal endoscopies.

## **4) Teaching and learning methods**

### **1) Teaching rounds**

- d- Lectures: the lectures are given in the lecture hall as determined by the faculty administration
- e- Tutorial: are given in the lecture hall as determined by the faculty administration once weekly for 2 weeks for each group
- c- Clinical rounds: 2 clinical rounds daily in special hall for clinical teaching all over the year.

### **2) Time plan:**

**Lecture:** Once daily – 1 hour – 3 weeks

**Tutorial:** Three tutorials

**Clinical :** Once daily – 2 hours– 3 weeks

### **5) Student assessment:**

#### **A- Attendance criteria:**

The minimal acceptable attendance is 75% as determined by faculty administration. Students who fail to attend that percentage of activities will not be allowed to apply for final written examination.

#### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding und intellectual skills</b>
<b>Clinical examination</b>	<b>Assessment of knowledge, understanding and clinical skills</b>
<b>Oral examination</b>	<b>Assessment of knowledge, understanding , attitude &amp; general skills.</b>

#### **C- Assessment Schedule**

- End round clinical examination held every 3 weeks (16 marks)
- Final examination held at the end of academic year for all students as a part of internal medicine exam (25 marks).

#### **D- Weighting of assessment:**

- End round clinical exam: 16 marks
- Final examination: Written exam (25 marks)

### **6- List of references:**

a) Essential books:

"Undergraduate lectures on tropical diseases and fevers" by Prof. Salah Saif El-Din and Prof. Mohamed Fathy Abdel-Wahab

b) Text books:



## Davidson's principles & practice of medicine

### **7- Resources/ facilities required for teaching and learning to achieve the above ILOs**

- 1- Lecture halls
- 2- Clinical rounds rooms
- 3- Wards and outpatient clinic of chest department, Menoufia university hospitals
- 4- Field trips to fever hospitals to know more about infectious diseases who needs admission to fever hospitals

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Ahmed Ragab El Gezara

**Signature**.....**Date** .....

**Head of Department:**

**Name:** Prof. Dr. Atef Abo El-Soud

**Signature**.....**Date**.....

# Dermatology, Andrology & STDs

University: Menoufia

Faculty: Medicine

## A-Administrative information

Course Title : Dermatology, Andrology & STDs

Code: MFM-V 01/Spec 4

Department offering the course: Dermatology & Andrology  
Department

Program on which the course is given : M.B.B.Ch Program

Academic year/level : 5<sup>th</sup> Year

Date of specification : 2017

Date of approval by Departmental and Faculty Council: August 2017

Teaching hours Lectures: 24, Clinical and Tutorial: 30, Total:  
54

## B- Professional Information

### 1 – Overall aims of course:

- To support acquisition of basic knowledge of the common dermatological diseases and how to manage them.
- To provide students with an appropriate background about normal structure and function of male genital system and diseases related to it.

### 2- Intended Learning Outcomes:

*By the end of the internal medicine course, the student will be able to:*

#### a- Knowledge and Understanding :

- a1.** Describe normal structure and function of the skin and skin appendages.
- a2.** Outline different types of nonspecific and specific bacterial infections with their clinical picture and treatment
- a3.** Describe different types of viral infections with their clinical picture and treatment
- a4.** Identify different types of fungal infection of the skin with their clinical picture and treatment
- a5.** Recognize different viral infections of the skin with their clinical picture and management.
- a6.** Outline different types of parasitic infections with their clinical picture and treatment
- a7.** Describe pathogenesis, differential diagnosis and treatment of different allergic skin disorders
- a8.** Outline pathogenesis, differential diagnosis and treatment of different Papulosquamous disorders
- a9.** Identify disorders of different skin appendages with their management.
- a10.** Define different disorders of pigmentation with their management.
- a11.** Describe different autoimmune diseases of the skin with their differential diagnosis and management.
- a12.** Identify the normal structure and function of male genital system.
- a13.** Outline different causes and management of male infertility.
- a14.** Define causes and management of different sexual disorders including erectile dysfunction and premature ejaculation
- a15.** Identify pathology and management of different prostatic disorders.
- a16.** Describe Normal puberty & pubertal disorders (delayed & precocious puberty)

**a17.** Identify the common sexually transmitted diseases and the basis of their management.

### **b. Intellectual Skills**

**b1.** Integrate the clinical data obtained from history, clinical examination and investigations to reach the proper diagnosis of different dermatological and andrological disorders.

**b2.** Construct an appropriate management plan for common dermatological diseases and dermatological emergencies

**b3.** Construct a management plan for common andrological disorders and sexually transmitted diseases.

**b4.** Identify when to refer a dermatological case.

### **c- Practical & clinical skills:**

**c1.** Practice history taking skills for dermatological cases.

**c2.** Apply physical examination skills for dermatological cases.

### **d. General and Transferable Skills**

**d1.** Practice lifelong learning and collect new information using the different electronic methods

**d2.** Present clearly and effectively a scientific topic in the practical class.

**d3.** Interact with patients and their relatives in a gentle, respectable manner regardless of his beliefs or socioeconomic status.

**d4.** Share the patient or his caretakers in decision making regarding management of the patient condition.

**d5.** Interact with other healthcare members for proper patient's management.

## **3- Course Contents :**



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Topic	Course ILOs	Lecture	Practical/Tutorial
Anatomy & physiology of human skin and its appendages	A1	2	2
Nonspecific bacterial infections	A2, A3, A4, B1, B2	2	1.5
Specific mycobacterial infection: (TB – leprosy)	,C1,C2,C3,D3, D4,D5	1	1.5
Fungal infections		1	1.5
Viral infections		1	1.5
Parasitic infestations		1	1.5
Skin allergic disorders	A2, A3, A4,B1,B2	2	2
Papulosquamous disorders	A2, A3, A4,B1,B2,C1, C2,D3,D4	1	1.5
Disorders of skin appendages	A2, A3, A4,B1,B2	1	1.5
Disorders of pigmentation	A2, A3, A4,B1,B2	1	1.5
Autoimmune diseases of the skin	A2, A3, A4,B1,B2,,D1, D2	1	1.5

Differential diagnosis of common skin diseases	A3,B4	1	1.5
Therapeutics of skin diseases	A4	1	1.5
Anatomy and physiology of male genital system	A5	2	1.5
Male infertility	A6 ,B3	1	1.5
Sexually transmitted diseases	A7,B3	1	1.5
Sexology: Erectile dysfunction	A6,B3	1	1.5
Premature ejaculation	A6,B3	1	1
Prostatic disorders	A6,B3	1	1.5
Normal puberty& pubertal disorders	A6,B3	1	1
Total		24	30

### **Dermatology :**

Anatomy and physiology of human skin and its appendages.

Nonspecific bacterial infections: ( impetigo , cellulitis , eriseplas, erythrasma, intertrigo and folliculitis )

Specific mycobacterial infection: (TB – leprosy)

Fungal infections: ( dermatophytes , candida ,pitrosporum )

Viral infection: (herpes virus, human papilloma virus , pox virus )

Parasitic infestations: ( scabies, pediculosis)

Skin allergic disorders ( dermatitis & eczema, urticaria , angioedema, drug eruption)

Papulosquamous disorders: (psoriasis , lichen planus , pityriasis rosea, PRP)

Disorders of skin appendages (Sebaceous glands , hair , nail & sweat glands)

Disorders of pigmentation: vitiligo , albinism ,melasma

Autoimmune diseases of the skin

Differential diagnosis of common skin diseases

Therapeutics of skin diseases

### **Andrology :**

Anatomy and physiology of male genital system

Male infertility

Sexually transmitted diseases (syphilis , HIV , gonorrhea )

Sexology: Erectile dysfunction

Premature ejaculation

Prostatic disorders

Normal puberty& pubertal disorders (delayed & precocious puberty)

### **4- Teaching and learning methods**

1. Lectures.
2. Clinical rounds
3. Tutorial
4. Outpatient clinic

### **5- Student Assessment:**

### **A- Attendance criteria:**

The minimal acceptable attendance is 75% as determined by faculty administration. Students who fail to attend that percentage of activities will not be allowed to apply for final written examination.

### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding and intellectual skills</b>
<b>Problem solving</b>	<b>to assess the student's intellectual skills.</b>
<b>Multiple choice questions</b>	<b>to assess continuous education.</b>
<b>Clinical slides exam</b>	<b>to assess the student's ability to diagnose different dermatological diseases</b>

### **C- Assessment schedule**

Assessment 1: End round clinical slide exam at the end of the clinical round.

Assessment 2: Final written exam (With internal medicine exam)

Assessment 3: Final clinical slides exam

### **D- Weighting of assessments**

<b>EXAMINATION</b>	<b>MARKS ALLOCATED</b>
End round clinical slide exam	20 marks
Final written exam (With internal medicine exam)	30 marks
Final clinical slides exam	20 marks
<b>Total</b>	<b>70 marks</b>



## 6- List of references

- Staff member's book.
- CDs loaded with pictures used during clinical teaching.
- Recommended text books :
  - ANDREW'S text book
  - Rook text book
  - Fitzpatrick's Atlas
- Recommended web sites:  
[www.dermnetnz.org](http://www.dermnetnz.org)

## 7- Facilities required for teaching and learning:

1. Lecture rooms in the faculty supplied with (Board, Overhead projector & Data show).
2. Round halls in the department of dermatology where facilities are available
3. General Library of the faculty.

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

### Course coordinators:

Name: Prof. Dr. Alaa Hassan Maree  
Signature.....Date .....

### Head of Department:

Name: Prof. Dr. Alaa Hassan Maree  
Signature.....Date.....

# Clinical Pathology

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title:** Clinical pathology.

**Code:** MFM-IV 01/Spec 5

**Department offering the course:** Clinical pathology department

**Program on which the course is given:** M.B.B.Ch

**Academic year/level:** 5<sup>th</sup> year

**Date of specification:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017

**Teaching hours:**

**Lecture:** 16 hours **Total:** 16 hours

## B-Professional information

### **1 – Overall aims of course:**

To enable the student to understand the role of laboratory in diagnosis, to interpret different laboratory reports and to acquire skills in some simple techniques which is useful for diagnosis of many diseases.

### **3- Intended learning outcomes of course (ILOs)**

#### **a- Knowledge and Understanding:**

- a1. Describe the basic principles of different laboratory tests
- a2. Recognize pre and post analytical precautions.
- a3. Outline the major clinical affections and changes of laboratory tests of clinical chemistry.

- a4. Identify the major clinical affections and changes of laboratory tests of hematology
- a5. Describe the major clinical affections and changes of laboratory tests of clinical immunology
- a6. Outline the major clinical affections and changes of laboratory tests of clinical microbiology

**b- Intellectual skills:**

- b1. Select the suitable tests for each clinical situation.
- b2. Interpret the different laboratory reports.

**c- Professional and practical skills**

- c1. Assess the normal and abnormal values of different tests.
- c2. Manage how to take the sample.
- c3. Collect, transport and store the samples carefully.

**d- General and transferable skills**

- d1. Deal respectively with teachers, colleagues and patients .
- d2. Apply the medical ethics inside and outside the lab.
- d4. Apply a professional image concerning behavior, dress and speech.

**3- Course contents:-**

Topics	ILOs	Hours for lectures
<p><b><u>I-Clinical chemistry:</u></b></p> <p>(1) Diabetes mellitus &amp; its complications.</p> <p>(2) Plasma protein &amp; its disorders.</p> <p>(3) Plasma Lipids, lipoproteins &amp; their disorders.</p> <p>(4) Na, K &amp; Acid base balance.</p> <p>(5) Enzymes in diagnosis of AMI.</p> <p>(6) Kidney function tests &amp; related diseases.</p>	<p>a1, a2, a3 b1, b2, c1, c2, c3, c4, d1, d2, d3, d4</p>	<p>6</p>



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<p><b>(7) Liver function tests &amp; related diseases.</b>  <b>(8) CA &amp; phosphorus &amp; related disorders.</b>  <b>(9) Urine report &amp; stool report.</b>  <b>(10) Thyroid, adrenal &amp; gonads function tests.</b></p>		
<p><b><u>II-Hematology:</u></b>  <b>(11) Hematological normal values &amp; ESR.</b>  <b>(12) RBC &amp; its disorders:</b>  <b>◆ Normal hematopoiesis &amp; RBCs production.</b>  <b>◆ Anemias</b>  <b>☼ Microcytic hypochromic</b>  <b>☼ Normocytic normochromic &amp; hemolytic</b>  <b>☼ Macrocytic</b>  <b>◆ Iron overload.</b>  <b>(13) WBC &amp; its disorders:</b>  <b>a- Leucopenia &amp; Leukocytosis.</b>  <b>b- Acute Leukemia myeloid &amp; lymphoid &amp; chronic.</b>  <b>c- Lympho-proliferative disorders including chronic Lymphatic leukemia.</b>  <b>d- Myelo-proliferative</b>  <b>(14) Hemostasis.</b></p>	<p>a4,b1, b2,c1, c2, c3,c4, d1,d2,d3,d4</p>	<p>4</p>



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<ul style="list-style-type: none"> <li>plat. Disorders, coagulation disorders &amp; vascular disorders</li> </ul> <p>(15) Blood transfusion &amp; complications.</p>		
<p><b><u>III-Clinical Immunology:</u></b></p> <p>(16) Serology, autoimmunity &amp; hypersensitivity.</p> <p>(17) Immunodeficiency, Hepatitis &amp; Tumor markers.</p>	a5, b1, b2, c1, c2, c3, c4, d1, d2, d3, d4	4
<p><b><u>IV-Clinical Microbiology:</u></b></p> <p>(18) Sampling &amp; microbiological examination.</p> <p>(19) Bacteraemia &amp; Septicemia &amp; meningitis (CSF examination).</p> <p>(20) PUO (Pyrexia of unknown origin) &amp; Hospital infection.</p>	a6, b1, b2, c1, c2, c3, c4, d1, d2, d3, d4	2
<b>Total</b>		16

**Detailed description of course topics**

**I-Clinical chemistry**

- (1) Diabetes mellitus & its complications.
- (2) Plasma protein & its disorders.
- (3) Plasma Lipids, lipoproteins & their disorders.
- (4) Na, K & Acid base balance.
- (5) Enzymes in diagnosis of AMI.
- (6) Kidney function tests & related diseases.
- (7) Liver function tests & related diseases.

- (8) CA & phosphorus & related disorders.
- (9) Urine report & stool report.
- (10) Thyroid, adrenal & gonads function tests.

## **II-Hematology**

- (11) Hematological normal values & ESR.
- (12) RBC & its disorders
  - a- Normal hematopoiesis & RBCs production.
  - b- Anemias
    - ☼ Microcytic hypochromic
    - ☼ Normocytic normochromic & hemolytic
    - ☼ Macrocytic
  - c- Iron overload.
- (13) WBC & its disorders.
  - a- Leucopenia & Leukocytosis.
  - b- Acute Leukemia myeloid & lymphoid & chronic.
  - c- Lymphoproliferative disorders including chronic Lymphatic leukemia.
  - d- Myeloproliferative
- (14) Hemostasis.
  - plat. Disorders, coagulation disorders & vascular disorders
- (15)- Blood transfusion & complications.

## **III-Clinical Immunology**

- (16) Serology, autoimmunity & hypersensitivity.
- (17) Immunodeficiency, Hepatitis & Tumor markers.

## **IV-Clinical Microbiology**

(18) Sampling & microbiological examination.

(19) Bacteraemia & Septicemia & meningitis (CSF examination).

(20) PUO (Pyrexia of unknown origin) & Hospital infection.

#### **4- Teaching and learning methods**

Lectures for acquisition of knowledge 2 hours / week.

#### **5- Student assessment methods**

##### **A- Attendance criteria:**

The minimal acceptable attendance is 70% Students who fail to attend that percentage of activities will not be allowed to sit for final written examination.

##### **B- Assessment tools**

Written examination to assess the knowledge and understanding and intellectual skills.

##### **C- Assessment schedule**

Assessment held at the end of the academic year for all students

##### **D- Weighting of assessments**

Final-term examination within internal medicine exam

- Written: 30 marks
- Oral: 10 marks

#### **6- List of references**

- 1- Course notes
- 2- Essential books (text books): Clinical pathology department book.

#### **7- Facilities required for teaching and learning:**

Lecture halls at the faculty



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**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Prof. Dr. Rawhia Hassan EL-Edel

**Signature.....Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Rawhia Hassan EL-Edel

**Signature.....Date.....**

.....



# Pediatrics

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title:** Pediatrics.

**Code:** MFM -V 02.

**Department offering the course:** Pediatrics Department.

**Program (s) on which the course is given:** M.B.B.Ch Program.

**Academic year/level:** 5th Year.

**Date of specification:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017.

**Taught hours:**

**Lectures:** 108    **Tutorials:** 20    **Practical:** 80    **Others:**  
**Total:** 208.

## B- Professional Information

### 1 – Overall aims of course:

- a. To support acquisition of basic knowledge of normal and abnormal growth and development (physical, physiologic, psychosocial) and its clinical application from birth through adolescence.
- b. To enable students to provide basic health care for individuals in the pediatric age group (neonates, infants, children and adolescents) with emphasis on disease prevention and health promotion.

- c. To provide students with an appropriate background covering the common and important pediatric emergencies.

## **2- Intended Learning Outcomes:**

*By the end of the pediatrics course, the student will be able to:*

### **a- Knowledge and Understanding :**

- a1. Outline normal and abnormal growth pattern and development at all stages of growth (infancy, childhood and adolescence) .
- a2. Recognize the basic approaches for nutrition and infant feeding
- a3. Identify the etiology and pathogenesis of the most important perinatal and neonatal diseases.
- a4. Identify the vaccinations necessary for each age according to the national schedule and know their contraindications and administration methods and precautions.
- a5. Recognize the social hazards for pediatric age group and their prevention.
- a6. Explain the genetic background of congenital and inherited diseases.
- a7. Describe the clinical picture, differential diagnosis and treatment of most important diseases affecting the kidney in pediatric age group.
- a8. Outline the clinical picture, differential diagnosis and treatment of most important diseases affecting the cardiovascular system in pediatric age group.
- a9. Explain the clinical picture, differential diagnosis and treatment of most important diseases affecting the respiratory system in pediatric age group
- a10. Describe the clinical picture, differential diagnosis and treatment of most important diseases of hematology and oncology in pediatric age group
- a11. Identify the diagnosis and treatment of pediatric infectious and parasitic diseases

**a12.** Outline the clinical picture, differential diagnosis and treatment of most important diseases of endocrinology and metabolism in pediatric age group

**a13.** Recognize the diagnosis and treatment of pediatric neuromuscular disorders,

**a14.** Describe the clinical picture, differential diagnosis and treatment of most important diseases of gastroenterology and hepatology in pediatric age group.

**a15.** Outline the approach to neonatal and pediatric emergencies.

**a16.** Identify the risk factors and approach for management of behavioral disorders in children.

### **b. Intellectual skills:**

**b1.** Analyze clinical pediatric problems to reach a diagnosis and a differential diagnosis.

**b2.** Interpret the findings in basic pediatric investigations

**b3.** Integrate information from history, examination and investigations to reach an appropriate diagnosis.

**b4.** Formulate the management plan appropriate for each disease especially acute ones either medical or surgical.

### **c. Practical and clinical skills :**

**c1.** Take good history from the pediatric cases according to their age group.

**c2.** Perform correct clinical examination and recognize their abnormalities.

**c3.** Apply the standard physical and mental milestones and recognize abnormalities in their development.

**c4.** Design diagnostic approach and treatment plan for common pediatric problems either acute or chronic.

**c5.** Perform life-saving measures for critically ill children.

c6. Calculate drug doses according to age group.

**d. General and Transferable skills:**

d1. Apply the principles of continuous medical education .

d2. Work in a team with respect to other team members.

d3. Communicate effectively with the relatives and counsel them about their problems.

d4. Share patients and their caretakers in decision making regarding management of the patient condition.

d5. Work with other healthcare professions in management of undiagnosed cases.

d7. Collect data from information technology and library resources.

d8. Apply the rules of consultation for urgent and undiagnosed cases.

d9. Apply basics of scientific research (collection ,analysis and interpretation of data).

**3- Course Contents**

Topic	ILOS to be achieved	Total no. of hours per semester / year	Hours for lectures	Hours for tutorial and other small groups or project	Hours for practical
1-Growth and Development	a.1 c.3	10	6	1	3
2-Nutrition and Infant Feeding	a2,c.2 a.4	16	8	2	6
3-Perinatology/Neonatalog	a3, b.1 c.2 c.4 c.6	18	10	2	6



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<b>y</b>					
<b>4-Social and Preventive Pediatrics</b>	a4 a5 d.2 d.3 d.4	<b>4</b>	4	0	<b>0</b>
<b>5-Genetics and Dysmorphology</b>	a6 c.2 c.4	<b>12</b>	6	1	<b>5</b>
<b>6-Nephrology</b>	a7 b.2 b.3 b.4 c.1 c.2 c.4 c.6	<b>14</b>	6	1	<b>7</b>
<b>7-Cardiovascular System</b>	a8 b.2 b.3 b.4 c.1 c.2 c.4 c.6	<b>18</b>	8	2	<b>8</b>
<b>8-Respiratory System</b>	a9 b.2 b.3 b.4 c.1 c.2 c.4 c.6	<b>20</b>	10	2	<b>8</b>
<b>9- Hematology/Oncology</b>	a10 b.2 b.3 b.4 c.1 c.2 c.4 c.6	<b>18</b>	8	2	<b>8</b>
<b>10-Infectious and Parasitic Diseases</b>	a11 c.2 c.4 c.6	<b>6</b>	6	0	<b>0</b>
<b>11-Endocrinology and Metabolism</b>	a12 b.2 b.3 b.4 c.1 c.2 c.4 c.6	<b>14</b>	6	1	<b>7</b>
<b>12- Neuromuscular Disorders</b>	a13 b.2 b.3 b.4 c.1 c.2 c.4 c.6	<b>18</b>	8	2	<b>8</b>
<b>13-Gastroenterology and Hepatology</b>	a14 b.2 b.3 b.4 c.1 c.2 c.4 c.6	<b>18</b>	8	2	<b>8</b>
<b>14 - Pediatric Emergencies</b>	a15 c.5 c.6	<b>18</b>	10	2	<b>6</b>
<b>15 - Behavioral Pediatrics</b>	a16 b.1 b2 b3 b4 d.1 d.5	<b>4</b>	4	0	<b>0</b>
<b>Total</b>		<b>208</b>	<b>108</b>	<b>20</b>	<b>80</b>

**Detailed description of course topics**

**A- THEORETICAL COURSE:**

**1. GROWTH & DEVELOPMENT:**

- Normal patterns of growth and development, and factors affecting them.

- Normal developmental milestones.
- Abnormal patterns of growth and development, and causative factors.
- Instruments of anthropometric measurement and their application including body-mass index (BMI), normal and abnormal.
- Tools of developmental evaluation in infancy, childhood, and adolescence.

## **2. NUTRITION & INFANT FEEDING:**

Nutritional counseling of families regarding:

- Breastfeeding.
- Complementary feeding.
- Appropriate balance of food groups qualitatively and quantitatively in the diet.
- Basic vitamin groups and their common dietary sources.
- Dietetic history that includes the types, amount, and frequency of milk feeds, solid foods and dietary supplements.
- Infant weaning.
- Protein energy malnutrition syndromes.
- Common vitamins and mineral deficiencies.
- Nutritional risk factors for cardiac disease and diabetes.
- Nutritional assessment in children beyond infancy in situations when growth is inadequate or excessive or when family risk factors suggest the possibility that nutritional modification will be needed.

## **3. PERINATOLOGY & NEONATOLOGY:**

- Obstetrical and neonatal risk factors.
- Care of the normal newborn.
- Neonatal resuscitation.
- Growth patterns and nutrition of the newborn.
- Neonatal mortality.
- Common neonatal problems:
  - Prematurity and low birth weight.
  - Birth injuries.
  - Respiratory disorders.

- Hyper-bilirubinemia.
- Sepsis.
- Neurological disorders.
- Cardiovascular disorders.
- Hematological disorders.
- Metabolic disorders.
- Surgical emergencies.

#### **4. SOCIAL & PREVENTIVE PEDIATRICS:**

- Pattern of morbidity and mortality in the society.
- Integrated Management of Childhood Illness (IMCI) and its role in preventive and social aspects of pediatrics.
- Immunization program.
- Common teratogenic agents and their effect on the child health.
- Injury prevention.

#### **5. GENETICS & DYSMORPHOLOGY:**

- Basic mechanism of Mendelian inheritance, multifactorial inheritance, and the “carrier” state.
- History taking and examination skills relevant to genetic and dysmorphic disorders.
- Causes of malformation and genetic disorders and basic knowledge of the appropriate diagnostic tests and clinical course for common disorders.
- Antenatal diagnosis and newborn screening programs.
- Common chromosomal syndromes (Down Syndrome).

#### **6. NEPHROLOGY:**

- Common symptoms of renal and urinary tract disorders.
- Developmental renal and urinary tract disorders.
- Acquired glomerular diseases (nephrosis, nephritis, acute and chronic renal failure).
- Urinary tract infections.

#### **7. CARDIOVASCULAR SYSTEM:**

- Hemodynamics of the normal heart.
- Rheumatic fever and rheumatic heart disease.

- Pathophysiology of the more common congenital heart defects (ASD, VSD, PDA, PS, and Fallot's tetralogy).
- Indications and hazards of various types of cardiovascular investigations.
- Basic mechanisms of heart failure and the principles of its management in the pediatric patient.

#### **8. RESPIRATORY SYSTEM:**

- Rhinitis, pharyngitis, tonsillitis, adenoiditis, and otitis media.
- Laryngitis, epiglottitis, and tracheitis.
- Bronchitis, bronchiolitis, and bronchiectasis.
- Acute pneumonia.
- Wheezy chest and bronchial asthma.
- Pleural effusion, pneumothorax.
- Foreign body inhalation.

#### **9. HEMATOLOGY / ONCOLOGY:**

- Normal hematopoiesis.
- Normal hemostasis.
- Common anemias.
- Bleeding and coagulation disorders.
- Common pediatric malignancies.

#### **10. INFECTION & PARASITIC INFECTION:**

- Common exanthemata: measles, German measles, roseola infantum, fifth disease, scarlet fever, varicella-zoster, etc.
- Common enanthemata (e.g., oral moniliasis, herpetic stomatitis).
- Diphtheria, tetanus, pertussis, mumps and hemophilus.
- GIT and hepatic infections (e.g., salmonellosis, shigellosis, hepatitis).
- Common parasitic infestations: schistosomiasis, malaria, amebiasis, giardiasis.
- CNS infections: meningitis, encephalitis.
- Tuberculosis.
- Septic shock.
- Fever of unknown etiology.



## **11. ENDOCRINOLOGY & METABOLISM:**

- Short stature.
- Inborn errors of Metabolism.
- Diabetes mellitus.
- Thyroid disease (congenital and acquired).

## **12. NEUROMUSCULAR DISORDERS:**

- Normal milestones of development.
- Microcephaly & Hydrocephalus.
- Floppy infants.
- Mental retardation.
- Cerebral palsy.
- Seizure syndromes.
- Hereditary myopathies (muscle dystrophy).
- Anticonvulsant drugs.

## **13. GASTROENTEROLOGY:**

- Acute GE, chronic and persistent diarrhea.
- Dehydration.
- Vomiting.
- Abdominal pain.
- Ascitis.
- Hepatomegaly/splenomegaly.
- Jaundice.

## **14. PEDIATRIC EMERGENCIES:**

- CPR.
- Shock.
- Seizures.
- Coma.
- Airway obstruction.
- RD/Apnea.
- Metabolic emergency.
- Drowning and near drowning.

## **15. BEHAVIORAL PEDIATRICS:**

- Genetic and environmental influences on behavior.
- Age-appropriate behavioral concerns during the health care supervision visit.
- Counseling the parents and children on management of common behavioral such as discipline, toilet training (enuresis, encopresis) and eating disorders.

## **B- CLINICAL TRAINING COURSE**

- History taking.
- General Examination.

### **I- Clinical Cases:**

#### **1. NUTRITION**

- PEM.
- Rickets.

#### **2. GENETIC**

- Trisomy 21.
- Mental retardation.

#### **3. NEONATOLOGY**

- Preterm.
- Jaundice.

#### **4. RESPIRATORY**

- Bronchial asthma.
- Acute bronchiolitis.
- Pneumonias.
- Pleural effusion.

#### **5. CARDIOVASCULAR & RHEUMATOLOGY**

- Acute rheumatic fever.
- Rheumatoid arthritis.
- Rheumatic heart disease (mitral regurge, mitral stenosis).
- Congenital heart disease (VSD, Fallot tetralogy).

#### **6. NEUROLOGY**

- Cerebral palsy.
- Convulsions.
- Hydrocephalus.
- Duchene-muscular dystrophy.

## 7. NEPHROLOGY

- AGN.
- NS.

## 8. GIT

- Gastroenteritis.
- Dehydration.
- Hepatosplenomegaly.

## 9. HEMATOLOGY

- Anaemias.
- Purpura.
- Leukemia (All).

## 10. ENDOCRINOLOGY

- Short stature.
- Hypothyroidism.
- Diabetes mellitus.

## **II- Physical signs (OSCE):**

### 1. NEONATOLOGY

- Neonatal resuscitation (model).
- Moro reflex.

### 2. CARDIOVASCULAR

- Pulse.
- ABP.
- Neck veins.
- Apex beats.
- Pulmonary area pulsations.
- Epigastric pulsations.
- Percussion of the heart.

### 3. CHEST

- Percussion of the chest.

### 4. ABDOMEN

- Liver.
- Spleen.
- Ascites.

### 5. CNS

- Knee jerk.
- Planter reflex.
- Signs of meningeal irritation.

### 6. NEPHROLOGY

- Palpation of kidneys.
- Oedema.

### 7. NUTRITION

- Head circumference.
- Anterior fontanelle.

### 8. Practical Training Course for Radiology

- Interpretation of conventional x-rays

## **4. Teaching and learning methods**

**3.1-** Interactive Lectures.

**3.2-** Clinical Rounds (In-patients' wards & Neonatology unit & Skill lab).

**3.3-** Problem Based Learning.

**3.4-** Assignments:

#### **i. Presentation:**

##### **A. Case presentation:**

Presentation of 5 clinical cases of different systems.

##### **B. Talk:**

One talk of 10 – 15 min. On a common symptom, sign or differential diagnosis e.g., dyspnea, cyanosis, clubbing, edema , jaundice, etc.....

**ii. Writing an essay**

About 10 pages on one common medical subject e.g., bleeding tendency, hemolytic anemia, purpura, lymphomas etc.....

**iii. Attendance and making a short report about:**

- 5 different cases from Outpatient Clinic
- 5 different cases from the Emergency Room (ER)
- 5 different cases from the Intensive Care Unite (ICU)
- 2 different cases from the Neonatal Intensive Care Unit (ICU)

**5- Student Assessment:**

**A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

**B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Final written examination</b>	<b>Assessment of knowledge, understanding und intellectual skills</b>
<b>Final clinical examination</b>	<b>Assessment of knowledge, understanding, attitude and clinical skills</b>
<b>Final oral examination</b>	<b>Assessment of knowledge, understanding , &amp; general skills. (a1-a9 , b1-b7, ,d1-d9)</b>
<b>Clinical log book</b>	<b>For Assessment of attendance</b>

<b>End round examination</b>	<b>For assessment of knowledge , understanding and &amp; Intellectual and practical skills</b>
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### C- Assessment schedule:

<b>Assessment 1</b>	In Round Exam.	Every 3 weeks in round.
<b>Assessment 2</b>	End Round Exam.	Week 8th.
<b>Assessment 3</b>	Log book.	During clinical round course.
<b>Assessment 4</b>	Final Written Exam.	The end of the year.
<b>Assessment 5</b>	Final Oral Exam.	The end of the year.
<b>Assessment 6</b>	Final Clinical Exam.	The end of the year.

### D- Weighing of assessment

Exam	Allocated marks
End Round exam including log book and in round exams	100 (20%)
Final-term written exam	250 (50%)
Final Oral exam	50 (10%)
Final Clinical exam	100 (20%)
Total	500 marks

### E: Grading system:

The minimum passing score is 300 marks provided that at least 75 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **F. Final Examination Description:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Two written papers three hours each	250
Final clinical examination	Clinical cases examination OSCE examination	150
Final oral examination	Two sessions ( 2 examiners)	100

### **6- List of references**

#### **1- Course notes**

- Department Course notes.
- Department book of basic clinical pediatrics.

#### **2- Essential books (text books)**

- Nelson textbook of pediatrics.
- Current Diagnosis and treatment, Pediatrics.

#### **3- Recommended books**

- Prof. El Mogi book of pediatrics, Al-Azhar University.
- Aids to pediatrics, Ain Shams University book.

#### **4- Periodicals, Web sites, etc**

- [WWW.emedicine.com](http://WWW.emedicine.com).
- [WWW.sciencedirect.com](http://WWW.sciencedirect.com).

### **7- Resources / Facilities required for teaching and learning to achieve the above ILOs:**



- I- Lecture rooms in the faculty supplied with (Board, Overhead projector & Data show).
- II- Round halls in the department of dermatology where facilities are available
- III- General Library of the faculty.
- IV- Training in pediatric department.

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Prof .Dr Seham ragab    Dr. Mahmod El Hawy Dr. Ahmed Shawky  
**Signature**.....**Date**  
.....

**Head of Department:**

**Name:** Prof. Dr. Fady Mohammed El Gendy  
**Signature**.....**Date**.....  
.....



## Family Medicine II

**University: Menoufia**

**Faculty: Medicine**

### A-Administrative information

**Course title: Family medicine II**

**Program on which the course is given: MBChB**

**Department offering the course: Family medicine**

**Academic year / Level: 5<sup>th</sup> year**

**Date of specification: 2010**

**Date of last specification revision: 2017**

**Date of approval by Departmental & Faculty council: August 2017**

**Taught hours: Lectures: 30 hours      Practical: 51 hours      field training: 9 hours      Total: 90 hours**

### B-Professional Information

#### **1. Overall aims of course:**

**By the end of this course the students able to:**

- a. Adopt holistic approach in primary care management for different age groups from neonates to geriatrics. Practice Patient-centered care through achieving the clinical and practical standards required to deal with common diseases including respiratory, GIT, joint, musculoskeletal and mental disease.

#### **2 – Intended Learning Outcomes of the Course (ILOs)**

### **a- Knowledge and Understanding:**

- a1.** Identify psychosocial and cultural determinant of health and disease and explain the role of family physician in both according to life cycle approach.
- a2.** Define the importance of continuity of care and role of the referral system process, feedback and follow up for selected patients addressed in national Basic Benefit Package provided by MOHP.
- a3.** Describe methods of early diagnosis of malignancy & screening
- a4.** Demonstrate importance and application of evidence based medicine and identify principle of problem solving.

### **b- Intellectual Skills:**

- b1.** Construct management plans and referral regulations.
- b2.** Apply the different Practice of physical, mental examination and management plans according to social environment.
- b3.** Discriminate methods of community health Promotion and appropriate screening tests used after determining risk factors that affect the course of the disease.
- b4.** Formulate a research question and analyze ethical dilemmas in relation to the principles of family medicine

### **c- Professional and Practical Skills**

- c1.** Diagnose and manage common health problems.
- c2.** Assist in provision of health maintenance and disease prevention through field trips and construct a scheme for management and follow up of common non-communicable diseases.
- c3.** Interpret information to history taking, physical examination and investigations and then apply appropriate management plan relevant to different life cycles and events with practicing appropriate communication skills and prescription writing.

### **d- General and Transferable Skills**

- d1.** Retrieve information and be able to use the recent evidence based information and communications technologies
- d2.** Utilize information to help problem solving as regards the ethical and legal issues involved in patient –doctor communication for effective communication with patients regardless of their social, cultural backgrounds or their disabilities.
- d3.** Communicate effectively through feedback to help evaluate his own and others work.
- d4.** Apply the ethics of medical practice when dealing with patients and colleagues.
- d5.** Conduct research to keep up-to-date with the international advancement in medical field

### **3- Course Contenta:**



No	Topic	ILOs	No of hours			total
			Theoretical 30 hour	Practical		
				Clinical rounds	Field visits	
1	Problem solving	A4,B1,2,3,4D1	1			1
2	Evidence based Medicine	A4 B1,2,3,4D1	1	-----	----	1
3	Approach to Neonates in family practice	A4 B1,2,3,4C1,2,3D2,3,4	2	2	----	4
4	Approach to child with fever in family practice	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	4	1	7
5	Primary health care for adolescent in family health practice	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	4	1	7
6	Management of chronic diseases in family practice (HTN)	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	4	1	7
7	Management of chronic diseases in family practice (DM)	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	4	1	7
8	Common respiratory diseases in family practice	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	4	1	7
9	Common GIT problems in family practice	A1,2 B1,2,3,4 C1,2,3	2	4	1	7
10	Fatigue in adult patient	A1,2 B1,2,3,4 C1,2,3D2,3,4	1	-----	----	1
11	Adult care in family practice (HIV&AIDS)	A1,2 B1,2,3,4 C1,2,3D2,3,4	1	-----	----	1
12	Mental health in family practice	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	-----	---	2
13	Approach to parasitic infestation in family practice	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	4	1	7
14	Common joint and musculoskeletal diseases in family practice	A1,2 B1,2,3,4 C1,2,3D2,3,4	2	2	1	5
15	Integrated seminar ( case of chest pain)	A1,2 B1,2,3,4 C1,2,3D1,2,3,4,5	2	3	1	6
16	Geriatric care in family practice	A1,2,3 B1,2,3,4 C1,2, 3D2,3,4	4	4	----	8

17	Patient interview	A1,2 C1,2,3	B1,2,3,4	-----	4		4
18	Smoking cessation	A1,2,3 C1,2, 3D2,3,4	B1,2,3,4	-----	4		4
19	Integrated management of childhood illness	B1,2,3,4 C1,2,3D1,2,3,4,5		-----	4	----	4
	Total			30	51	9	90

#### **4- Teaching and learning methods**

- 1- **Lectures** for acquisition of knowledge: four groups, each group once /day
- 2- **Seminars:** with integration with other departments of the faculty
- 3- **Practical classes:** including role Play, case studies.
- 4- **Field Trips:** visits to family health center or outpatient clinics to discuss medical problem with patients and they are asked to present their cases during the clinical round days
- 5- **Tutorial:** students are divided into five groups and a problem is distributed among them ten days before tutorial. They are asked to discuss the problem as teamwork and present their findings in tutorial day

#### **5- Student Assessment:**

##### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

##### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>to assess students' knowledge and</b>

	<b>understanding (a1, 2, 3, 4, 5, 6, 7, 8,9)</b>
<b>Clinical examination</b>	<b>to assess students' skills (b 2, 3, 4, 5, C1, 2, 3, 4, 5, 6 and d1, 2, 3, 4, 5, 6)</b>
<b>Oral examination</b>	<b>to assess knowledge, understanding and attitude (a1, 2, 3, 4, 5, 6, 7,8,9 &amp; e1, 2, 3, 4)</b>

**Matching ILOs with teaching methods and assessment of students:**

<b>ILOs</b>	<b>Teaching methods</b>	<b>Assessment</b>
<b>Knowledge:</b>		
<b>A1</b>	- Lectures, presentations by students	Define, enumerate
<b>a2</b>	- Lectures, small group discussion, field visits, role play	Define, List, problem solving
<b>a3</b>	- Role play, case study, small group discussion	Problem solving
<b>A4</b>	- Lectures, case study, tutorial	Oral exam, problem solving
<b>Intellectual skills:</b>		
<b>B1</b>	Role play, case study, small group discussion, field visits	OSCE
<b>B2</b>	Role play, field visits, practical rounds	OSCE
<b>B3</b>	Role play, small group discussion, lectures, field visits	Problem solving, Oral exam
<b>B4</b>	Case presentations, lectures	Oral exam
<b>Professional and Practical Skills:</b>		
<b>C1</b>	Role play, field visits, lectures, clinical rounds	Problem solving, OSCE,
<b>C2</b>	Field visits, clinical rounds, role play	OSCE, problem solving
<b>C3</b>	Lectures, clinical rounds, role play, field visits, tutorial	OSCE, case presentation

### General and Transferable Skills:

<b>D1</b>	Lectures, Role play, case study, small group discussion	Problem solving, complete.
<b>D2</b>	Lectures, role play, tutorial	OSCE, problem solving
<b>D3</b>	Small group discussion, field visits, role play	Group presentation

### C- Assessment schedule:

- **Assessment 1:** Semester work by written assessment at the end of each round.
- **Assessment 2:** Final-term assessment at the end of the academic year by written examination, oral examination and practical examination (OSCE & OSPE).

### D- Weighting of assessments

EXAMINATION	MARKS ALLOCATED
Final examination	25 marks (50%)
Periodical assessment (Attendance and behavior as a part of the end round work and end round examination)	10 marks (20%)
Clinical	5 marks (10%)
Oral exam	10 marks (20%)
Total	50 marks (100%)

### E- Grading system:

- The minimum passing score is 25 marks provided that at least 7.5 marks are obtained in the final written examination.
- Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **F- Final Examination Description:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	One hour written paper MCQ and problem solving	25
Final Clinical examination	• Two clinical cases with checklist for assessment	5
Oral Final examination	One session (with discussion of clinical cases)	10

### **6 - List of references**

#### 1- Course notes

Departmental book

#### 2- Essential books (text books):

Ø Rakek., R. Textbook of Family Practice 6th edition W.B. Saunders Company Philadelphia London Toronto Montreal Sydney Tokyo 2008.

#### 3- Recommended books

Ø South- Paul ., J.E. Matheny., S.C. Lewis ., E.L .Current Diagnosis & treatment Family Medicine 2nd edition A lange Medical book2008.

Ø Practice Guidelines for family physicians 2007

#### 4- Periodicals, Web sites, ... etc





Journal of the American Academy of Family Physicians

## **7- Facilities required for teaching and learning**

1. Lecture rooms in the faculty supplied with (Board, Overhead projector & Data show).
2. Round halls in the department of dermatology where facilities are available
3. General Library of the faculty.
4. Field trips

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Dr. Nora Khalil.

**Signature**.....**Date** .....

**Head of Department:**

**Name:** Prof. Dr. Hala Shaheen.

**Signature**.....**Date**.....

.....

## General Surgery & Specialties

**University: Menoufia**

**Faculty: Medicine**

### A-Administrative information

**Course Title:** General Surgery.

**Code:** MFM -VI 01

**Department offering the course:** General Surgery Department.

**Program(s) on which the course is given:** MBBCh.

**Date of specification/revision:** 2006.

**Date of specification revision:** 2017.

**Date of approval by Departmental and Faculty Council:** August 2017

**Teaching hours:**

Lecture: 216 hrs.

Practical: 220 hrs.

Total: 436hrs.

### B-Professional Information

#### **1 – Overall aims of course:**

- a) To provide the student with the appropriate knowledge, and skills, which enable him/her to obtain a detailed history from patients with surgical problems, to carry out a proper clinical examination, and to define the appropriate management plan.
- b) To provide the student with the knowledge and skills needed for initial management of various surgical emergencies, and polytraumatized patient.
- c) To provide the student with an appropriate background covering common general surgical, vascular, urologic, orthopedic, cardiothoracic, and neurosurgical problems at various age groups.

## **2 – Intended learning outcomes of course (ILOs):**

### **a- Knowledge and Understanding:**

*By the end of the course, the student should be able to:*

- a1. Identify the surgical anatomy of important regions, organs and structures of the body.
- a2. Describe the pathophysiology of wounds, wound healing and principles of wound management.
- a3. Define the types and etiology of surgical infections and nosocomial infection and their management.
- a4. Outline the management of the severity injured and critically ill patient including metabolic response to trauma.
- a5. Recognize the steps of preoperative assessment and postoperative complications of the surgical patients.
- a6. Describe the pathophysiology of hemorrhage, hemorrhagic disorders and principles of blood transfusion.
- a7. Define types of fluids, electrolytes and principles of acid-base balance.
- a8. Identify the pathophysiology and types of shock and their management.
- a9. Outline the importance and principles of Nutrition in surgery.
- a10. Discuss tumor biology and management.
- a11. Identify the indications and principles of organ transplantation.
- a12. Describe medical problems in the surgical patient including metabolic disorders.
- a13. Identify the differential diagnosis of different lymph node diseases and approach for management.
- a14. Discuss the basics of grafts, flaps and repair of tissue defects
- a15. Outline the principles of craniomaxillofacial surgery with management of disorders of face, lips and palate.
- a16. Explain the principles of Surgery of nerves, muscles, tendons and fascia.
- a17. Describe the pathophysiology and management of hand infection and hand injuries.
- a18. Define the principles and approach for burn management.
- a19. Outline the indications and types of breast reconstruction.

- a20.** Identify the clinical picture and management of different arterial system disorders including injuries; acute ischemia; occlusive arterial disease includes aneurysms; arteriovenous malformation and vasculitis.
- a21.** Outline the clinical picture and management of different venous system disorders including varicose veins and venous thrombo-embolism and chronic venous insufficiency.
- a22.** Describe clinical picture and management of different lymphatic system disorders including lymphangitis, lymphatic obstruction, lymphedema and lymphatic malformation.
- a23.** Identify different disorders of thyroid, parathyroid and adrenal glands and their approach for management.
- a24.** Define different breast disorders with their approach for management.
- a25.** Recognize the steps for management of abdominal trauma.
- a26.** Outline the types, clinical picture and treatment of abdominal wall hernia.
- a27.** Discuss the principles of endoscopic and laparoscopic surgery.
- a28.** Identify the etiology, presentation and approach for management of acute abdomen.
- a29.** Describe different surgical cases of the esophagus, stomach and duodenum and their approach for management.
- a30.** Outline different disorders of liver, pancreas and spleen including portal hypertension and diseases of biliary system with their management.
- a31.** Define different surgical cases of small intestine, large intestine and appendix with their presentation and treatment.
- a32.** Recognize different disorders of peritoneum, mesentery and omentum with their presentation and treatment.
- a33.** Identify the types. Presentation and treatment of diaphragmatic hernia.
- a34.** Clarify the principles of obesity & bariatric surgery.
- a35.** Recognize the principles of pediatric surgery and anomalies of the gastrointestinal tract.
- a36.** Explain the methods of screening and early detection of cancer.
- a37.** Define the ethical principles and practice of preoperative preparation and postoperative care.

**a38.** Describe the different types of surgical incisions and the basic steps of common surgical procedures.

**a39.** Describe the basic steps needed for the conduction of safe anesthesia.

**a40.** Outline the physiologic effects of pain and the principles of its management.

**a41.** Define local anaesthesia.

**a42.** Outline the management of unconscious patient, cardiopulmonary resuscitation and management of hypoxic & hypotensive patients.

**b- Intellectual skills:**

*By the end of the course, the student should be able to:*

**b1.** Utilize sources of information like medical records, patient's family/friends to augment medical history.

**b2.** Interpret patient symptoms and physical findings in terms of their anatomic, pathologic and functional diagnostic significances.

**b3.** Prioritize problems, and generate a list of differential diagnosis for each problem.

**b4.** Analyze the results of all the tests ordered to modify the problem list and the differential diagnosis accordingly.

**b5.** Integrate the clinical and investigational results, with the knowledge and the skill in clinical problem solving.

**b6.** Predict complications of major diseases beyond the capacities of general practitioner and determine when to refer them to specialist.

**b7.** Design management plans for patients with chronic surgical conditions requiring long-term follow-up, rehabilitation and pain relief.

**b8.** Monitor the effectiveness of therapy by identifying clinical and investigative parameters that can be used in assessing the patient's response to treatment and re-evaluate management plan accordingly.

**c- Professional and practical skills:**

*By the end of the course, the student should be able to:*

**c1.** Obtain and document a complete medical history, as well as paper writing and presentation.

**c2.** Perform physical examination on the highly important clinical cases, focusing on the specific tests of each case.

**c3.** Present patient's data in an organized and informative manner.

**c4.** Perform routine bedside procedures.

c5. Apply the principles of sterile techniques and infection control guidelines.

c6. Employ the proper investigations related to the patient condition including different laboratory and radiological modalities to reach the diagnosis.

C7. Obtain consensus and option informed consent from the patient's surrogate for the treatment plan.

C8. Conduct effective end of life communication.

#### **d- General and transferable skills:**

*By the end of the course, the student should be able to:*

d1. Conduct sincere and effective patient interviews, properly explain their condition and plan of management, obtain consents and convey bad news in a professional way.

d2. Write patient's record properly and maintain a good attitude toward the patient by advocating the patient's interests over his own.

d3. Communicate, consult and respect the role of other health-care providers.

d4. Apply adequate communication skills necessary for the achievement of high standards of medical practice both in relation to care of patient and to his or her own personal development, such as team work, patient respect and colleagues respect .

d5. Search effectively medical literature using electronic resources and retrieve appropriate information.

### **3- Course Contents:**

#### **1- GENERAL SURGERY INCLUDES:**

##### ***\*Introduction to surgery:***

- Wounds, wound healing and wound management.
- Surgical infections and nosocomial infection and their management.
- Management of the severity injured and critically ill patient including metabolic response to trauma.
- Preoperative assessment and postoperative complications of the surgical patients.

- Hemorrhage, hemorrhagic disorders and blood transfusion.
- Fluids, electrolytes and acid-base balance.
- Shock.
- Burns.
- Nutrition in surgery.
- Tumor biology and management.
- Organ transplantation.
- Medical problems in the surgical patient including metabolic disorders.
- Lymph node diseases.

***\*Plastic surgery and burn:***

- Introduction (grafts, flaps, repair of tissue defects and craniomaxillofacial surgery).
- Face, lips, and palate.
- Surgery of nerves.
- Disorders of muscles, tendons and fascia.
- Hand infection and hand injuries.
- Burn management.
- Breast reconstruction.

***\*Vascular surgery:***

- Arterial system (injuries; acute ischemia; occlusive arterial disease includes aneurysms; arteriovenous malformation; vasculitis).
- Venous system (V.V and venous thrombo-embolism, CVI).
- Lymphatic system: lymphangitis, lymphatic obstruction and lymphoedema, lymphatic malformation.

***\*Endocrine surgery:***

- Thyroid, parathyroid and adrenal glands.

***\*Breast surgery.***

***\*GIT and abdominal surgery:***

- Abdominal trauma.
- Abdominal wall hernia.
- Endoscopic and laparoscopic surgery.



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- Acute abdomen.
- Esophagus.
- Stomach and duodenum.
- Liver.
- Portal hypertension.
- Biliary system.
- Pancreas.
- Spleen.
- Small intestine.
- Larger intestine.
- Appendix.
- Peritoneum, mesentery and omentum.
- Diaphragmatic hernia.
- Obesity & bariatric surgery.
- Pediatric surgery and anomalies of the gastrointestinal tract.

## **2- SPECIAL SURGERY COURSES:**

### ***\*UROLOGY:***

- Anatomy and embryology.
- Symptomatology & physical examination.
- Investigations of urinary tract.
- congenital anomalies.
- Trauma to urinary tract.
- Urinary tract infections.
- Inguinoscrotal swellings.
- Varicocele and male infertility.
- BPH.
- Obstructive uropathy.
- Stone disease.
- Urogenital neoplasms.
- Voiding disorders.
- Pediatric urology.
- Parasitic infection.
- Ectile dysfunction.



- Endourology.
- Infertility.

**\*ORTHOPEDIC SURGERY:**

- Infection.
- Bone tumors.
- Deformities.
- Arthritis.
- Perth`s disease.
- CDH.
- Knee.
- Flat foot.
- TEV.
- Recurrent dislocation of shoulder.
- Supraspinatus tendonitis.
- Tennis elbow.
- Tenosynovitis, trigger finger, ganglion (wrist & hand).
- CTS (wrist & hand).
- Scoliosis, kyphosis, lordosis.
- Infection of the spine.
- Tumors of the spine.
- trauma surgery including:
- General principle of bone fractures.
- Neurovascular injuries and acute ischemia.
- Open fractures.
- Complications of fractures (local& systemic).
- Shoulder, arm, elbow injuries.
- Forearm, wrist injuries.
- Hand injuries.
- Pelvic injuries.
- Fractures around hip joint.
- Femoral fractures.
- Knee injuries.
- Leg injuries.
- Ankle and foot injuries.



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- Spinal fractures.
- Fractures in children.
- Basic principles of internal fixation.

**\*Neurosurgery:**

- Injuries of peripheral nerves.
- Autonomic nervous system.
- Nerve tumors.
- Congenital anomalies of the skull.
- Fracture of the skull.
- Intracranial injuries.
- Hydrocephalus.
- Brain abscess.
- Intracranial tumors.

**\*Cardiothoracic surgery:**

- Chest trauma.
- Empyema.
- Bronchogenic carcinoma.
- Principles of cardiac surgery.
- Valve surgery.
- Surgery of congenital heart disease.
- Surgery of pulmonary T.B.
- Surgery of suppurative lung disease.
- Surgery of mediastinal disease.
- Surgery of ischemic heart disease.
- Pleural disease

**\*Anesthesia:**

- Preoperative assessment & premedication.
- I.V anesthesia.
- Inhalational anesthesia.
- Muscle relaxants.
- Endotracheal intubation.
- Local anesthesia, spinal, epidural.
- Fluid therapy.



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- Shock.
- Blood transfusion.
- Cardiac arrest.
- Postoperative pain relief.

### **--LIST (1): CLINICAL ROUNDS:**

- History taking and clinical examination.
- Clinical diagnosis of swelling and tumors.
- Common conditions like: cellulitis, abscess, lipomas etc.
- Ulcers, sinuses, fistulae.
- Lesions of the head, scalp, skull, face, lips, tongue, palate, cheek, jaw, and floor of the mouth.
- Parotid swellings.
- Swellings at the side, in the medline, and in the submandibular regions of the neck.
- Thyroid lesions including physiological, nodular, toxic, malignant, and its lesions.
- Breast lesions including; lumps, pain, nipple discharge.
- Axillary swellings.
- Clinical diagnosis of acute abdomen.
- Abdominal swellings including; organomegally and swellings in different quadrants.
- Abdominal pain and dyspepsia.
- Dysphagia.
- Haematemesis.
- Jaundice of surgical importance.
- Hepatomegally.
- Splenomegally.
- History taking in anal and rectal disease.
- Clinical diagnosis of hernia cases: inguinal, femoral and umbilical.
- Scrotal and inguinoscrotal swellings.
- History taking and examination of urological cases.
- Peripheral ischemia.
- Gangrene.
- Varicose veins.



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- Peripheral nerve injuries.
- Oedema of limbs.
- A swelling in the ends and shaft of long bones.
- A swelling in popliteal fossa.
- Joint disease.
- Diseases of the spine.

### **--LIST (2): LIST OF JARS:**

#### **1- GIT Jars Include:**

- Carcinoma of the stomach.
- Colon polyps.
- Carcinoma of the rectum.
- Carcinoma of the caecum.
- Intussusception.
- Multiple polyposis of the colon.
- Acute appendicitis.
- Typhoid ulcer of the colon.

#### **2- Hepatobiliary:**

- Chronic calcular cholecystitis.
- Multiple liver metastasis.
- C.C.C. with a solitary cholesterol stone.

#### **3- Urology:**

- Hydronephrosis due to pelvi-ureteric junction (PUJ) obstruction.
- Hydroureter and hydronephrosis.
- Renal cell carcinoma (hypernephroma).
- Renal tuberculosis.
- Cancer of urinary bladder with back perssure effects (bilateral hydroureter).
- Polycystic kidney.
- Seminoma of the testis.
- Testicular tumors.

#### **4- Spleen:**

- splenic injury.

- Splenomegally.
- Splenic focal lesion.
- Multiple focal lesions of the spleen.

### **5- Breast:**

Breast cancer (modified radical mastectomy).

### **6- Head & Neck:**

- Solitary thyroid nodule.
- Multinodular goitre.
- Total thyroidectomy.
- Lymph node excisional biopsy.
- Oesophageal atresia.
- Epithelioma of the scalp.

### **--LIST (3): LIST OF SURGICAL ANATOMY TOPICS:**

- The scalp.
- The thyroid.
- The parotid gland.
- The breast.
- Axillary and brachial arteries.
- Radial, median and ulnar nerves.
- Abdominal wall.
- The inguinal canal.
- The stomach.
- The rectum and anal canal.
- The liver.
- The spleen.
- The kidneys.
- The ureters and urinary bladder.
- Femoral and popliteal arteries.
- Long and short saphenous veins.
- Sciatic, medial and lateral popliteal nerves.
- Muscles: sternomastoid, deltoid, pectoralis major, latissimus dorsi, rectus abdominis, quadriceps, psoas major, scalenie muscles, gluteus maximus, diaphragm.

**--LIST (4): LIST OF OPERATIVE PROCEDURES:**

- Principles of coverage of skin defects.
- Management of compound depressed fracture of the skull.
- Indications and principles of surgical interference in head injuries.
- Thyroidectomy.
- Principles of management of hyperthyroidism.
- Principles of management of carcinoma of the thyroid gland.
- Management of cold abscess in the neck.
- Hand infections.
- Management of fracture clavicle.
- Management of a sucking wound in the chest.
- Management of hemothorax.
- Management of pneumothorax.
- Acute lactational mastitis and breast abscess.
- Principles of management of carcinoma of the breast.
- Hernia operations.
- Management of inguinal hernia (technique).
- Management of strangulated inguinal hernia.
- Surgical management of hydrocele.
- Varicocelectomy.
- Appendectomy.
- Management of a stab wound in the right hypochondrium.
- Management of rupture spleen.
- Principles of management of adhesive intestinal obstruction.
- Management of bleeding esophageal varices.
- Management of bleeding peptic ulcer.
- Management of perforated duodenal ulcer.
- Management of infantile ileocecal intussusception.
- Principles of management of hemorrhoids.
- Management of acute anal fissure.
- Management of a stone in the left kidney.
- Exposure of the ureter.
- Management of stone ureter.
- Acute urinary tract infection: causes and treatment.

- Male circumcision.
- Management of fracture shaft femur.
- Management of fracture neck femur.
- Principles of management of arterial injuries.
- Above knee amputation.

#### **--LIST (5): BEDSIDE SKILLS:**

- IV, IM and SC injection.
- Insertion of IV canula.
- Insertion of urinary catheter.
- PR/PV examination.
- Insertion of nasogastric tube.
- Simple skin suturing.

#### **4- Teaching and learning methods**

##### **I- Teaching methods:**

1. Clinical demonstration.
2. Bedside teaching.
3. Staff rounds with active participation of students for clinical, ethical, and communicational skills.
4. Observation of bedside procedures.
5. Each student must present the history of five surgical cases and have them documented in a log book.
6. Each student should present a 15 minutes presentation of one surgical subject and have them documented in a log book.
7. Each student should write a ten pages assay on one of the common surgical subjects.
8. Problem-solving sessions.
9. Each student must attend two weeks (four hours a day ) in the emergency room and write a report on 15 cases in a log book.

10. Each student must attend at least five surgical operations (2 majors and 3 minors) and have them documented in a log book.

## **II- Teaching plan:**

1. General Surgery lectures are given daily starting from the beginning of December to the end of January, and then repeated again from the beginning of March to the end of July. They are given in auditorium in specialized halls. The halls are provided with writing boards, overhead projectors, and there is a data show apparatus that can be provided from the surgical department.
2. Special surgery lecture are given in the main auditorium.
3. Small groups (general surgery) are given in:
  - \*The general surgery department.
  - \*A conference room in the surgical department.
  - \*ER rotations.
  - \*Rotatory OR visits.

## **5- Student assessment:**

### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Written examination</b>	<b>Assessment of knowledge, understanding und intellectual skills</b>
<b>Clinical examination</b>	<b>Assessment of knowledge, understanding , intellectual and clinical skills</b>



<b>Oral examination</b>	<b>Assessment of knowledge, understanding &amp; general skills.</b>
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### **C- Assessment schedule:**

Assessment 1 Mid-Term & End round exam by the end of each round.

Assessment 2 Final written examination by the end of the academic year.

Assessment 3 Final Oral examination by the end of the academic year.

Assessment 4 Final Clinical examination by the end of the academic year.

### **D- Weighting of assessments**

<b>Examination</b>	<b>Subtotal</b>	<b>Total</b>
<u>General surgery rounds:</u> *end of round exam.	50	<b>120</b>
*Log book.	20	
*Final exam at the end of all rounds and stations.	50	
<i>Final</i>	Written Paper (1)	<b>150</b>
	Written Paper (2)	<b>150</b>
	Written Paper (3)	<b>150</b>
	Long case	<b>90</b>
	Short case	<b>90</b>
	Jars & X-Rays	<b>30</b>

	Operative	30
	Surgical anatomy & instruments	30
<b>Total</b>	<b>Total</b>	<b>900</b>

### **E: Grading system:**

The minimum passing score is 540 marks provided that at least 135 marks are obtained in the final written examination.

Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **F- Examination description:**

EXAMINATION		DESCRIPTION	MARKS
<i>Mid Year examination</i> 20%		Written & clinical.	180
<i>Final examination</i>	Written 50 %	3 days written examination, each for 3 hours and consists of: <ul style="list-style-type: none"> <li>• first paper.</li> <li>• Second paper.</li> <li>• Third paper.</li> </ul>	450
	Practical 20 %	<ul style="list-style-type: none"> <li>• This would include six stations, four with patients and two with investigations related the case, and the student is allowed 7 minutes with the patient to perform a local examination and evaluated meanwhile by the examiner. Another station will be an investigation (x-ray, ultrasound, lab results) that can be related to the case, with</li> </ul>	180

		MCQ on this investigation.	
	Oral 10 %	<ul style="list-style-type: none"> <li>the student is allowed to pick one or more topic for operative talk and then he is asked by the examiner to present his knowledge in this topic.</li> <li>The student is given a pathology specimen jar(s) and is asked to identify the specimen and asked about the theoretical knowledge related to it.</li> <li>X-rays and anatomy: 12 stations (8: X-rays, 4: anatomy). Each station has five true or false questions.</li> <li>Log book (seminar, clinical cases, emergency cases, staff rounds, and OR attendance).</li> </ul>	90
<b>Total</b>			<b>900</b>

### **6- List of references:**

1- Essential books (text books)

Kasr El-Aini Introduction to Surgery.

Surgical note taking and diagnosis by Abdelazim Rifaat

Bailey and Love's Short Practice of Surgery (available in library).

2- Recommended books

Current Surgical Diagnosis and Treatment,

3- Periodicals, Web sites, etc

www.mayoclinic.com and [www.emedicine.com](http://www.emedicine.com)

## **7- Resources / Facilities required for teaching and learning to achieve the above ILOs:**

- 1- Lecture halls in the faculty supplied with (Board, Overhead projector & Data show).
- 2- Round halls in the department
- 3- General Library of the faculty.
- 4- Training at the general surgery department including outpatient clinic, emergency, surgical theatre

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

### **Course coordinators:**

**Name:** Prof. Dr. Ayman Albatatony.

**Signature**.....**Date**  
.....

### **Head of Department:**

**Name:** Prof. Dr. Ashraf Abdelhady Zein Aldine.

**Signature**.....**Date**.....  
.....

# Orthopedic Surgery

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title:** Orthopedic surgery

**Code:** MFM-V1 01/Spec1

**Department offering the course:** Orthopedic Surgery

**Programme(s) on which the course is given:** MBChB

**Academic year:** 6<sup>th</sup> year

**Date of specification:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017

**Number of hours: Lectures:** 28 hours, **Practical:** 40 hours, **Total:** 68 hours

## B-Professional Information

### **1 – Overall aims of course:**

Provide students with basic knowledge and skills to understand basic orthopedic cases and emergencies and deal with such cases.

### **1 – Intended Learning Outcomes:**

#### **a- Knowledge and Understanding:**

*By the end of the course the student should have the ability to:*

**a1.** Outline the approach for management of polytrauma patient

- a2. Describe principles and complications of fractures including open fractures
- a3. Identify the clinical picture and treatment of different upper and lower limb injuries.
- a4. Define the clinical picture and management of different spine injuries.
- a5. Outline etiology, clinical picture, complications and treatment of different orthopedic infections including osteoarthritis.
- a6. Describe principles of bone tumors
- a7. Discuss the basics of pediatric orthopedics.
- a8. Define different foot disorders and knee deformities and their management.
- a9. Identify the approach for management of different nerve injuries.
- a10. Outline diagnosis and treatment of metabolic bone disorders and crystal deposition disorders
- a11. Define causes for osteonecrosis and its management.

### **b- Intellectual Skills**

*By the end of the course the student should have the ability to*

- b1. Evaluate all types of X rays of bone diseases and trauma.
- b2. Link the basic science of orthopedic and their clinical applications to solve orthopedic problems..
- b3. Analyze different cases of bone diseases to reach proper method of treatment.

### **c- Professional and Practical Skills**

*By the end of the course the student should have the ability to*

- c1. Take history from orthopedic case
- c2. Diagnose different types of bone and joint diseases.
- c3. Examine carefully orthopedic cases.

### **d- General and Transferable Skills**

*By the end of the course the student should have the ability to*

- d1.** Demonstrate oral presentation in seminars.
- d2.** Apply team working and leadership skills.
- d3.** Communicate effectively with his colleagues and patients
- d4.** Apply continuous self education, updating information and developing skills

### **3- Course contents**

Topic	ILOS covered	Hours for lectures	Hours for practical	Total no. of hours per semester / year
Management of polytrauma patient	A1,A2,B3,C1,D1, D2,D3	2	3	4
Principles and complications of fractures	A1, A2, A3, B1, B2, D1, D2, D3	2	3	6
Open fractures	B3, C1, C2, C3, D1, D2, D3	2	2	4
Upper limb injuries	A1, B1, B2, D1, D2, D3	2	2	6
<b>Lower limb injuries</b>	A1, A2, A3, C1, C2, C3	2	3	4
Spine injuries	A1, A2, B3, C1, C2, C3, D3	2	3	6



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Orthopedic infections	A1, A2, A3, B1, B2, D1, D2, D3	2	3	4
Osteoarthritis	A1, A2, B3, C1, C2, C3, D1, D3	2	3	6
Principles of bone tumor	A1, A2, B1, B2, B3, C1, D1, D3	2	2	4
Pediatric orthopedics	A1, A3, B1, B3, C1, C3	2	3	6
Foot disorders	A1, A2, A3, B2, B3, C2, C3, D2, D3	2	2	4
Knee deformities	A1, B2, B3, C1, C3, D3	2	3	6
Nerve injuries	A1, B3, C1, C3, D1, D2, D3	2	2	4
Metabolic bone disorders	A1, A2, B1, B2, C1, C2, C3, D2, D3	2	3	6
Crystal deposition disorders	A1, A2, C3, D1, D2	1	1	4
Osteonecrosis	A1, A2, B2, B3, C1, C3, D1, D3	1	2	6
<b>Total</b>		28	40	68



#### **4- Teaching and learning methods**

- 1- Theoretical Lectures
- 2- Clinical Rounds
- 3- Workshops

#### **5- Student Assessment:**

##### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

##### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
<b>Quiz</b>	<b>to assess the ILOS a1, b2, c3</b>
<b>X-Ray sessions</b>	<b>to assess ILOS a2, b3, c3, d1</b>
<b>End Round exam</b>	<b>to assess ILOS a4 b4 c1 d2</b>
<b>Final written exam</b>	<b>to assess ILOS a1,2,3 b2 c2 d1</b>

##### **C- Assessment schedule:**

Quizzes at the end of week 1 of clinical round

X-ray stations at the end of week 2 of clinical round

End round at the end of week 3 of clinical round

Final written exam at the end of the year within the general surgery exam

##### **D- Weighting of assessment**

End round examination: 30

Final examination within general surgery :

Written exam: 40 marks

Oral exam

## Clinical exam

### **6- List of References**

- 1- Course notes Department Notes
- 2- Essential books (text books) Zuckerman, Appley
- 3- Recommended books Salah Gado
- 4- Periodicals, Web sites, etc Orthobullets.com.

### **7- Resources / Facilities required for teaching and learning to achieve the above ILOs:**

- 1- Lecture halls in the faculty supplied with (Board, Overhead projector & Data show).
- 2- Round halls in the department
- 3- General Library of the faculty.
- 4- Training at the orthoprdic surgery department including outpatient clinic, emergency, surgical theatre.

**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

#### **Course coordinators:**

**Name:** Prof. Dr. Hesham El- mowafy.

**Signature**.....**Date** .....

#### **Head of Department:**

**Name:** Prof. Dr. El-Sayed Morsi..

**Signature**.....**Date**.....

# Urology

**University:** Menoufia

**Faculty:** Medicine

## A-Administrative information

**Course Title:** Urology

**Code:** MFM-V1 01/Spec2

**Department offering the course:** Urology Department

**Programme(s) on which the course is given:** M.B.B.Ch

**Academic year:** 6<sup>th</sup> year

**Date of specification:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017

**Number of hours: Lectures:** 28 hours, **Practical:** 40 hours, **Total:** 68 hours

## B-Professional Information

### 1 – Overall aims of course:

- a) Provide the student with the knowledge and skills which enable him/her to identify, analyze, manage and/or refer clinical urological problems in order to provide efficient, cost-effective and humane patient care.
- b) Provide the student with an appropriate background covering the common and important urological emergencies.

### 2. Intended Learning Outcomes (I.L.O.S):

#### a- Knowledge & understanding:

- a1. Recognize the basic anatomy & embryology for genitourinary system
- a2. Outline different congenital anomalies of urogenital system and their management.
- a3. Define the etiology for UTI, prostatitis & epididymo-orchitis and their management.
- a4. Describe the pathology, clinical picture, complications and management of specific infections of the urogenital system including TB and Bilharziasis
- a5. Outline the approach for management of genito-urinary trauma
- a6. Identify various stone diseases with their approach for management.
- a7. Discuss renal & suprarenal tumors with their pathology and clinical picture.
- a8. Describe the pathology, clinical picture and management of BPH.
- a9. Define different inguinoscrotal swellings with their clinical picture and management.
- a10. Identify the causes and treatment options for male infertility & impotence
- a11. Recognize the pathology and clinical picture of different tumors of the testis, bladder and prostate.
- a12. Define urological causes for oliguria & ARF and their management
- a13. Outline urological causes of CRF & principles of renal transplantation
- a14. Identify causes and management of incontinence & nocturnal enuresis
- a15. Recognize the safety protocols and infection control basics for basic urological interventions.

### **b- Intellectual Skills**

- b1. Interpret urological investigations.
- b2. Formulate a management plan for common urological diseases.
- b3- Set priorities in dealing with urological emergencies.

### **c- Professional and Practical Skills**

- c1. Take a complete medical history from different urologic patients.
- c2. Perform an emergency directed examination for patients with common urological disorders
- c3. Perform routine urological bedside procedures.

**c4.** Apply the principles of sterile techniques and infection control guidelines in basic urological interventions.

**c5.** Provide first aid measures for common urological emergency cases.

**d- General and Transferable Skills**

**d1.** Apply the medical ethics with respect to patient's dignity, privacy, information confidentiality and autonomy.

**d2.** Counsel the patient before any investigations or managements.

**d3.** Demonstrate communication skills.

**d4.** Assess himself and identify of personal learning defects and needs

**3- Course Contents:**

N.	Topic	ILOs covered	Theoretical hours	Clinical round hours	Total
1	Anatomy & embryology	a1	2	0	2
2	Congenital anomalies (kidney)	a1&a2	2	2	4
3	Congenital anomalies (ureter+ bladder)	a1&a2	1	2	3
4	Congenital anomalies(testis+ urethra)	a1&a2	1	2	3
5	Symptomatology	a2&c2	2	2	4
7	Investigations	b1&c2	1	2	3
8	UTI	a4&c4	1	2	3
9	Prostatitis & epididymo-orchitis	a4&b2&b3&c4	1	2	3
10	Specific infection( TB +	a4&b2&b3&c4	1	2	3



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	<b>Bilharziasis)</b>				
11	<b>Genito-urinary trauma (renal +ureter)</b>	b3&C1&c5&d1&d2	1	2	3
12	<b>Genito-urinary trauma (bladder+ urethra+ testis)</b>	b3&C1&c5&d1&d2&c5	1	2	3
13	<b>Stone disease</b>	b1&b2&b3&c2	2	2	4
15	<b>Renal &amp; suprarenal tumors</b>	a3&b1&b2&c2	2	2	4
17	<b>BPH</b>	b1&b2&c2&c3	1	2	3
19	<b>Inguinoscrotal swellings</b>	b2&C5	1	2	3
20	<b>Male infertility &amp; impotence</b>	b1&b2	1	0	1
21	<b>Testicular tumors</b>	a3	1	2	3
22	<b>Bladder cancer</b>	a3	2	2	4
24	<b>Prostate cancer</b>	a3	1	2	3
26	<b>Oliguria &amp;ARF</b>	c1	1	2	3
27	<b>CRF &amp; renal transplantation</b>	b1&b2&c2	1	2	3
28	<b>Incontinence &amp; nocturnal enuresis</b>	b1&b2&c2	1	2	3
<b>Total</b>			<b>28</b>	<b>40</b>	<b>68</b>

#### **4- Teaching and learning methods:**

- 1- **Interactive Lectures** for acquisition of knowledge 28 hours.
- 2- **Clinical rounds:** 40 hours .

## Teaching plan:

### 1. Lectures:

- The lectures are given in the lecture hall as determined by the faculty administration 1 lecture weekly (1 hour each), for 28 weeks.  
The students are divided into 2 groups (a and b)

### 2. Practical:

The students of the sixth year are divided on about 6 shifts yearly rounds . Each round is 3 weeks. Every time shift, two new groups come to the department; morning group and evening group.

Assistant lecturers attend earlier and demonstrate the clinical cases with the students then 2 staff members attend daily and discuss clinical cases with the students. The group of students who are assigned for daily clinical case presentations are allowed to see and may do clinical examination of the cases with the residents and demonstrators of the department

**Simulators** are present in the skill lab for urethral catheterization one for male and another for female.

## **5. Student Assessment:**

### **A- Attendance criteria:**

The minimal acceptable attendance is 75%. Students who fail to attend that percentage of activities will lose the attendance marks (5 marks).

### **B- Assessment tools:**

TOOL	PURPOSE
Written examination (short essay questions, MCQs & problem solving)	Assessment of knowledge, understanding und intellectual skills
End round examination (MCQ, radiology and surgical instruments)	Assessment of knowledge, understanding , intellectual and clinical skills

<b>Oral examination</b>	<b>Assessment of knowledge, understanding &amp; general skills.</b>
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### **C- Assessment schedule:**

1. The regular end-round (clinical rounds) exams at the end of the clinical round.
2. Final written exam within the general surgery final exam
3. Final Oral exam within the general surgery final exam

### **D- Weighing of Assessment:**

1. End round exam : representing 30 marks, divided into:
  - a. 5 marks for attendance and continuous sharing works
  - b. 25 marks for the MCQ, instrument and radiology exam.
2. Final examination within general surgery exam:
  - Written exam: : 40 marks in the 3<sup>rd</sup> paper
  - Oral exam
  - Clinical exam

### **6- List of References:**

- Penn manual of urology
- Campbell,s Urology
- Oxford handbook of urology
- Oxford handbook of urosurgery

### **7. Teaching & Learning Facilities:**

#### ***Facilities used for teaching this course include***

- 1- Classrooms for clinical rounds.
- 2- Audiovisual aids as: writing board, data show & overhead projectors.
- 3- Faculty library in the 3rd floor in the faculty used can be used for projects & text books.
- 4- Department cases for clinical practice
- 5- Lecture halls.

#### ***CLINICAL FACILITIES:***

- Urological outpatient clinic
- Inpatients beds in the hospital
- Operating Theater with 3 rooms.
- Urodynamic and ultrasound unit.





**We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinators:**

**Name:** Prof. Dr. Sultan Mohammed Sultan.

**Signature**.....**Date**

.....

**Head of Department:**

**Name:** Prof. Dr. Sultan Mohammed Sultan.

**Signature**.....**Date**.....

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# Cardiothoracic Surgery

University: Menoufia

Faculty: Medicine

## A-Administrative information

**Course title:** Cardiothoracic Surgery

**Code:** MFM-VI 01/Spec3 :

**Department offering the course:** Cardiothoracic Surgery  
**Programme(s) on which the course is given :** MBBCh

**Academic year** : 6th year

**Date of specification** : 2017

**Date of approval by department and faculty council:** August 2017

**Total teaching hours:** 28 hrs

**Lectures:** 8 hrs **Clinical Rounds and Tutorials:** 20 hrs

### **1. AIM OF THE COURSE:**

- a) To provide students with an appropriate foundation of knowledge covering the cardiac emergencies and common diseases in the heart
- b) To provide students with an appropriate foundation of knowledge covering the thoracic emergencies and common diseases in the chest. .

### **2. Intended Learning Outcomes (I.L.Os):**

#### **a- Knowledge and Understanding:**

- a1. Describe basic, applied and surgical anatomical facts, related to lung, heart and mediastinal structures.
- a2. Outline surgical approaches for treatment of different pleural diseases
- a3. Describe various lung diseases with surgical intervention as a treatment option.
- a4. Identify the indications and general principles of CABG

- a5. Explain different cardiac valves diseases with indications and principles of surgical intervention.
- a6. Outline the indications for chest tube insertion and its management
- a7. Identify the indications of anticoagulant and bridging therapy
- a9. Describe different causes for pericardial effusion and the approach for management
- a10. Recognize principles and sequence of management of common cardiac emergencies
- a11. Discuss management of trauma patient with involvement the chest and the heart.
- a12. Recognize principles and sequence of management of common thoracic diseases and emergencies.

#### **b- Intellectual skills**

- b1. Interpret patient complaint according to the type of disease and disease process.
- b2. Interpret the results of basic investigations like chest x ray and ct chest.
- b3. Formulate appropriate management plan for common cardiac and thoracic problems
- b4. Set priorities in dealing with cardiothoracic emergencies.

#### **c- Professional and practical skills**

- c1. Take a complete history from cardiothoracic patient .
- c2. Perform adequate basic chest and cardiac examination for basic cardiothoracic cases
- c3. Formulate a management plan for emergency cases of cardiothoracic diseases.

#### **d- General and transferable skills**

- d1. Work properly with colleagues in an effective team work.
- d2. Deal with patients in a compassionate and altruistic manner.
- d3. Demonstrate a professional image concerning behavior, dress & speech.
- d4. Search the literature to retrieve data and formulate it in a short essay
- d5. Recognize when to refer patient for the general practitioner.
- d6. Recognize the ethical and legal issues involved in patient –doctor communication.



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### 3- Course Contents

Topic	ILOs to be achieved	Hours for lectures	Hours for practical	Total hours per year
1 –pleural diseases	A1 A3 B1 B2 B3 C1 C2 D1 D2 D3 D4 D5 D6	1	4	5
2- lung diseases	A1 A3 B1 B2 B3 C1 C2 D1 D2 D3 D4 D5 D6	1.5	2	3.5
3- CABG	A1 A3 B1 B2 B3 C1 C2 D1 D2 D3 D4 D5 D6	1	-	1
4- cardiac valves diseases	A1 A3 B1 B2 B3 C1 C2 D1 D2 D3 D4 D5 D6	1.5	-	1.5
5- chest tube insertion and management	A1 A3 B1 B2 B3 C1 C2 D1 D2 D3 D4 D5 D6	-	2	2
6. anticoagulant and bridging therapy	A1 A2 A3 B1 B2 B3 C1 C2 D1 D2 D3 D4 D5 D6	-	2	2
7- pericardial effusion	A1 A3 B1 B2 B3 C1 C2 D1 D2 D3 D4 D5 D6	-	2	2



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<b>8-chest x ray and ct chest</b>	A1 A2 A3 B1 B2 B4 A4 B3 C1 C2 C3 D1 D2 D3 D4 D5 D6	-	4	4
<b>9-cardiac emergencies</b>	A1 A2 A3 A4 B1 B2 B3 B4 C1 C2 C3 D1 D2 D3 D4 D5 D6	1.5	2	3.5
<b>10-Chest trauma</b>	A1 A2 A3 A4 B1 B2 B3 B4 C1 C2 C3 D1 D2 D3 D4 D5 D6	1.5	2	3.5
<b>Total hours</b>		8	20	28

#### **4. Teaching & Learning Methods:**

##### **I- Teaching methods:**

1. Formal lectures.
2. Clinical rounds.
3. Small groups teaching, problem-based learning and data show discussions through tutorial.
4. Attendance with guidance in:
  - CARDIOTHORACIC wards: once/week
  - Outpatient clinic: once/week
  - Live surgery: once/ week

##### **II- Teaching plan:**

## 1. Lectures:

- The lecture halls (in the building of the faculty of medicine) 4 hours/week for 2 weeks.

## 2. Clinical rounds:

- In special fully equipped round hall in the CTS department. This year, students are divided into 5 groups each group includes approximately 100 students which divided into morning and afternoon groups of 50 student.

## 5. Student Assessment:

### A- Attendance criteria:

The minimal acceptable attendance is 75%. Students who fail to attend that percentage of activities will lose the attendance marks (5 marks).

### B- Assessment tools:

TOOL	PURPOSE
Written examination	Assessment of knowledge, understanding und intellectual skills
End round examination (x ray and CT sessions and clinical cases)	Assessment of knowledge, understanding , intellectual and clinical skills
Assignment for research	For assessment of general and transferrable skills
Log Book	For assessment of attendance to outpatient clinic, emergency room and operative theater

### C- Assessment schedule:

#### 1. End-round examination:

- Once at end of the two weeks clinical round.

#### 2. Final examination:

- Held at the end of the academic year for all students within the general surgery exam .

#### **D- Weighing of assessment:**

Examination	Description	Marks
Periodic(End round)	X ray and ct sessions	10
	Oral Exam	
Final exam	<b>Within general surgery</b>	

#### **6- List of references:**

- 1 Staff member's book.
- 2 CDs loaded with data and pictures used during clinical teaching.
- 3 Recommended web sites:
- 4 <http://www.mnfmed.org>

#### **7- Teaching & Learning Facilities:**

- 1- Lecture rooms in the in the faculty (Board, Overhead projector & Data show are available).
- 2- Round halls in the department of CTS in the hospital where facilities are available
- 3- (Slide projectors, overhead projectors and Data show and models simulators).
- 4- General Library of the faculty.
- 5- Clinical facilities like outpatient clinic ,department wards and operative theatre .



**We certify that all the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinator:**

Name: Prof. Dr. Islam Moheb Ibrahim

Signature..... Date .....

**Head of Department:**

Name Prof. Dr. Islam Moheb Ibrahim

Signature..... Date .....



# Neurosurgery

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title:** Neurosurgery

**Code:** MFM-VI 01/Spec4

**Department offering the course:** Neurosurgery department

**Programme(s) on which the course is given:** M.B.B.Ch.

**Academic year/level:** Sixth year

**Date of specification:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017

**Credit/taught hours: (whichever is appropriate)**

Lecture: 8 hrs      Clinical:20 hrs      Other:      Total:28

## B-Professional Information

### **1- Overall aims of course**

To provide students with:

- a) Knowledge, skills and attitudes in the fields of neurosurgery that help him/her to be a competent and safe general practitioner
- b) Ability to solve neurosurgical problems and perform specific tasks needed from a primary health care physician.

### **2- Intended learning outcomes of course (ILOs)**

#### **a- Knowledge and Understanding:**

By the end of the course, students will be able to:

- a1. Outline the basic approach to a neurosurgical case.
- a2. Explain the physiological and pathological processes related to neurosurgical problems.

- a3. Describe the anatomical basis of common and serious neurosurgical problems and the anatomical basis of operative management
- a4. Describe the pathogenesis and complications of common neurosurgical diseases.
- a5. **Identify** clinical picture and management of different complications of head injury.
- a6. Outline clinical picture and management of different brain space occupying lesions.
- a7. Describe types, clinical picture and management of different cerebrovascular strokes.
- a8. **Define** different congenital anomalies of the nervous system with their management
- a9. Discuss the management of traumatic spinal diseases.
- a10. Describe different non traumatic spinal diseases and their management.
- a11. Identify the clinical picture and management of different peripheral nerve injuries
- a12. Explain the basics of functional neurosurgery and their implication on clinical practice
- a13. Define emergency neurosurgical conditions.

#### **b- Intellectual skills:**

By the end of the course, students will be able to:

- b1. Integrate basic and clinical data to reach a diagnosis.
- b2. Generate a differential diagnosis for a clinical finding or set of findings.
- b3. Set priorities in dealing with neurosurgical emergencies.
- b4. Interpret pathologic findings in different modalities of imaging.

#### **c- Professional and practical skills:**

By the end of the course, students will be able to:

- c1. Obtain and record relevant medical history from the patient or a relative.
- c2. Perform general physical examination of patients with common surgical problems including: proper head and neck examination, neurological examination of patients to detect common neurosurgical problems and examination of the spine (vertebrae of neck and trunk).
- c3. Simulate first aid measures for injured and critically ill patients.

### **d- General and transferable skills:**

By the end of the course, students will be able to:

- d1.** Value the interests and dignity of patients and families.
- d2.** Deal respectfully with superiors, colleagues and any other members of the health profession.
- d3.** Work constructively and cooperatively within a team.
- d4.** Practice self and peer evaluation.
- d5.** Manage time effectively.
- d6.** Communicate clearly, sensitively and effectively with patients and their care givers, regardless of their social, cultural or ethnic background.
- d7.** Identify and refer difficult neurosurgical problems.

### **3- Course Content:**

Topics	Teaching and Learning Methods				
	Total	L	T	P/ C	ILOS served
<b>NEUROLOGICAL WORKUP</b> History Taking Examination Investigations	2			2	b1-b4, c1-c5, d1- d7
<b>HEAD INJURIES</b> Classification Pathophysiology Early and delayed management	4	1		2	d3-d5
<b>BRAIN SPACE OCCUPYING LESIONS</b> Increased Intracranial	3	1		2	b1-b4, c1-c3



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Tension Tumors					
Abcesses					
Others					
<b>CEREBRAL VASCULAR STROKES</b>	<b>3</b>	<b>1</b>		<b>2</b>	d1-d5
Heamorrhagic					
Ischemic					
<b>CONGENITAL ANOMALIES</b>	<b>5</b>	<b>1</b>		<b>4</b>	b2-b4
Hydrocephalus					
Craniosynostosis					
Meningeomyelocele					
Spina Bifida					
<b>Traumatic Spine Disease</b>	<b>3</b>	<b>1</b>		<b>2</b>	a2-a9,d1-d7
Cervical Spinal Injury and differential diagnosis					
Dorsal and Lumbar Spinal Injury					
<b>NON-TRAUMATIC SPINE DISEASE</b>	<b>3</b>	<b>1</b>		<b>2</b>	a6-a8,
Degenerative Spinal Disease and Differential Diagnosis					
Cervical Disc Prolapse					
Lumbar and Dorsal Disc Prolapse					
<b>PERIPHERAL NERVE INJURIES</b>	<b>3</b>	<b>1</b>		<b>2</b>	b2-b3,

<b>FUNCTIONAL NEUROSURGERY</b>	<b>1</b>	<b>1</b>			<b>c1,a4</b>
<b>REVISION</b>	<b>4</b>			<b>2</b>	
<b>Total</b>	<b>28</b>	<b>8</b>		<b>20</b>	

L: lecture, T: Tutorial, P: Practical, C: Clinical.

#### **4- Teaching and learning methods**

- 1- Lecture
- 2- Discussion sessions
- 3- Attendance at operative practice
- 4- Seminars

#### **5- Student Assessment:**

##### **A- Attendance criteria:**

The minimal acceptable attendance is 75%. Students who fail to attend that percentage of activities will lose the attendance marks (5 marks).

##### **B- Assessment tools:**

<b>Type</b>		<b>Assessment Method</b>	<b>ILOs Measured</b>
Formative Assessment		Weekly assessments during clinical period	b1-b4, c1-c5, d1- d8
Summative Assessment	Continuous Assessment	Presentations	d3-d5
		Slide exam	b1-b4, c1-c3
		OSCE	
	Oral exams	a1-a10, b1-b4	
	Final	WRITTEN EXAMS [Short Essay]	a1-a10, b1-b4

### **C- Assessment schedule:**

Week	Method
Weekly/ Clinical weeks	Formative Assessment: Weekly Assessments in clinical rounds
Once/ Seminar weeks	Presentations
Last Week of Clinical rounds	Continuous Assessment Practical Exam: Clinical / Slides Oral Exam
End of year	Written Exam within general surgery exam.

### **D- Weighing of assessment:**

Method	Marks
End round exam	10
Final written Exam	Within general surgery exam

### **6- List of references**

- 1- Course notes
- 2- Essential books (text books)  
Neurosurgery illustrated
- 3- Recommended books  
Hand book of neurosurgery; Greenberg
- 4- Periodicals, Web sites  
[www.medicaleducationonline.org](http://www.medicaleducationonline.org)



## **7- Teaching & Learning Facilities:**

- 1- Lecture rooms in the in the faculty (Board, Overhead projector & Data show are available).
- 2- Round halls in the department
- 3- (Slide projectors, overhead projectors and Data show and models simulators).
- 4- General Library of the faculty.
- 5- Clinical facilities like outpatient clinic ,department wards and operative theatre .

**We certify that all the information required to deliver this course is contained in the above specification and will be implemented**

### **Course coordinator:**

Name: Prof. Dr. Adel Mahmoud Hanafy

Signature..... Date .....

### **Head of Department:**

Name Prof.Dr. Adel Mahmoud Hanafy

Signature..... Date .....

# Gynecology and Obstetrics

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course Title:** Gynecology and Obstetrics

**Code:** MFM-VI 02

**Department offering the course:** Department of gynecology and obstetrics

**Programme(s) on which the course is given:** M.B.B.Ch.

**Academic year/level:** Sixth year

**Date of specification:** 2017

**Date of approval by Departmental and Faculty Council:** August 2017

**Total teaching hours:** 208 hours (lectures 108 + practical: 100)

## B-Professional Information

### **1- Overall aims of course**

- Prepare an oriented physician who can face the responsibility of managing normal pregnancy, labor, and puerperium as well as management of different disorders during pregnancy and labor.
- Prepare a capable physician responsible for the correct, early diagnosis of possible emergencies and complications that may be encountered in Obstetrics; so sharing in reduction of maternal mortality.
- Provide students with knowledge of different patterns of normal and abnormal menstruation with reference to endogenous hormonal status from puberty to menopause.
- Placement of emphasis on prevention and early detection, including the role of screening (e.g., for detection of malignancy)



## **2. Intended Learning Outcomes (I.L.Os):**

### **a- Knowledge & understanding:**

- a1.** Describe the basic physiological background of fertilization, implantation, and early development of the fetus, placenta, and cord
- a2.** Enumerate Physiological changes with pregnancy.
- a3.** Define complications and lines of management of abortion, ectopic pregnancy, vesicular mole, antepartum hemorrhage and shock.
- a4.** Outline definition, indications and safety of ultrasound in obstetrics and findings in different conditions
- a5.** Explain the physiology, mechanism, and management of normal labor.
- a6.** Define causes, diagnosis, and management of different fetal presentations and multiple pregnancies
- a7.** Enumerate all the causes, diagnosis and competently rank in order the lines of management of complications of third stage of labor, especially stressing on postpartum hemorrhage
- a8.**  
Recognize physiological changes during puerperium with stress on causes, pathology, diagnosis, differential diagnosis, and management of puerperal pyrexia , especially puerperal sepsis
- a9.** Define the indications and complications of cesarean section
- a10.** Demonstrate understanding of the physiology of menstruation, genital changes and factors controlling
- a11.** Understand the types, causes, proper investigation, and management of abnormal bleeding
- a12.** Outline the magnitude of the infertility problem and its different etiologies, emphasizing preventable and avoidable causes and anovulation.
- a13.** Recognize causes, types, and methods of diagnosis and management of STIs.
- a14.** Outline the magnitude of, causes (preventable and avoidable) and management of pruritus vulvae, genital prolapse, RVF, SI complete perineal tear and rectovaginal fistulas problems

**a15.** Discuss the magnitude of, causes (preventable and avoidable) and management of uterine fibroid.

**a16.** Recognize the methods of diagnosis, early detection and describe DD of Genital tract malignancies

**a17.** Enumerate the different contraceptive methods: their uses, types, advantages, disadvantages, and complications, EBM opinions in Hormonal methods.

### **b- Intellectual Skills**

**b1.** Interpret different findings in gynecological and obstetric ultrasound.

**b2.** Formulate a management plan for normal and abnormal pregnancy

**b3.** Interpret different patterns of antenatal and intranatal cardiotocography (CTG).

### **c- Professional and Practical Skills**

**c1.** Take comprehensive gynecological and obstetric history

**c3.** Perform pelvic examination on models and attend outpatient clinic for observation of vaginal examination.

**c3.** Perform general and abdominal examination of pregnant cases.

**c4.** Observe the conduct of second and third stages of labor

### **d- General and Transferable Skills**

**d1.** Communicate with the patient as a person, not as a disease, and understand that the patient is a person with beliefs, values, goals, and concerns, which must be respected in addition to respecting the patient's dignity, privacy, information confidentiality and autonomy.

**d2.** Counsel the patient before doing any intervention and in different situations with respect to her wish whenever this is possible.

**d3.** Advance the knowledge base of medicine by developing and encouraging scientific researches.

**a8.** Counsel postpartum women for breastfeeding, self-care and future contraception

## **3. Course Contents:**

Obstetric Topics	Lecture	Practical
<b>Part (1) Normal pregnancy</b>	<b>7</b>	<b>8</b>
a. Reproductive biology	3	0

b. Physiological changes during pregnancy	2	4
c. Diagnosis of pregnancy	1	2
d. Antenatal care	1	2
<b>Part (2) Abnormal pregnancy</b>	<b>5</b>	<b>10</b>
1. Hemorrhage in early pregnancy	3	6
2. Abortion		
3. Ectopic pregnancy		
4. Molar pregnancy		
1. Hemorrhage in late pregnancy	2	4
2. Classifications of Antepartum hemorrhage		
3. Placenta praevia		
4. Abruptio placentae		
<b>Part (3) Medical disorders with pregnancy</b>	<b>12</b>	<b>21</b>
1. Vomiting of pregnancy	1	1
2. Hypertensive disorders in pregnancy	2	4
3. Heart disease in pregnancy	1	2
4. Anemia in pregnancy	1	2
5. Diabetes mellitus in pregnancy	1	2
6. Urinary tract infections & pyelitis with pregnancy	1	2
7. Infectious disease in pregnancy	1	2
8. Polyhydramnios and oligohydramnios	1	1
9. Miscellaneous disorders with pregnancy	2	1
a. Pendulous abdomen		
b. Gynecologic tumors with pregnancy		
c. Abdominal pain during pregnancy		
d. Elderly primigravida		
e. Grand multipara		
10. High-risk pregnancy	1	1
<b>Part (4) Normal labor</b>	<b>5</b>	<b>10</b>
1. Components of labor	2	4
a. Passages (Female pelvis)		
b. Passengers (Fetal skull and the fetus)		
2. Mechanism and physiology of uterine	1	1



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Contraction		
3. Management of normal labor	1	2
4. Newborn baby		
5. Obstetric analgesia and anesthesia	1	2
<b>Part (5) Abnormal labor</b>	<b>14</b>	<b>27</b>
1. Malposition and malpresentation <ul style="list-style-type: none"> <li>o Occipito-posterior position</li> <li>o Face presentation <ul style="list-style-type: none"> <li>a. Brow presentation</li> <li>b. Complex presentation</li> <li>c. Breech presentation</li> <li>d. Shoulder presentation</li> <li>e. Unstable lie and shoulder dystocia</li> <li>f. Cord presentation and prolapse</li> </ul> </li> </ul>	6	12
2. Multiple (Multi-fetal) pregnancy	1	2
3. Abnormal uterine action	1	2
4. Obstructed labor including Contracted pelvis	1	2
5. Obstetric genital tract injuries <ul style="list-style-type: none"> <li>1. Uterine rupture</li> <li>2. Cervical lacerations</li> <li>3. Vaginal lacerations</li> <li>4. Perineal lacerations</li> <li>5. Genital tract haematomas</li> </ul>	2	3
6. Postpartum hemorrhage and obstetric shock	1	2
7. Other complications of the third-stage of labor <ul style="list-style-type: none"> <li>1. Retained placenta</li> <li>2. Acute uterine inversion</li> </ul>	1	2
8. Acquired coagulation defects in obstetrics	1	2
<b>Part (6) Normal puerperium</b>	<b>1</b>	<b>1</b>
1. Normal puerperium	1	1
2. Postnatal examination		
<b>Part (7) Abnormal puerperium</b>	<b>2</b>	<b>2</b>
1. Puerperal pyrexia	1	1
2. Puerperal sepsis		
4. Breast disorders in the puerperium	1	1



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5. Suppression of lactation		
<b>Part (8) The Fetus and Newborn baby</b>	<b>9</b>	<b>16</b>
1. Assessment of fetal growth, maturity and well being	2	4
2. Neonatal jaundice and Rh isoimmunisation	1	2
3. Placental insufficiency: fetal growth retardation and macrosomia	1	2
4. Intra-uterine Fetal death		
5. Fetal asphyxia	1	1
6. Respiratory distress syndrome	1	1
7. Injuries of the newly born infants	1	2
8. Pre-term labor	1	2
9. Premature rupture of membranes		
10. Post-maturity and post-maturity syndrome	1	2
11. Congenital anomalies and Prenatal diagnosis of congenital defects		
<b>Part (10) Operative obstetrics</b>	<b>3</b>	<b>6</b>
a. Therapeutic abortion and induction of abortion	1	2
b. Induction of labor		
c. Forceps delivery in modern obstetrics	1	2
d. Vacuum extraction		
e. Episiotomy	1	2
f. Cesarean section		
g. Destructive operations on the fetus		
<b>Part (11) Appendages</b>	<b>1</b>	<b>1</b>
1. Uterine relaxants (Tocolytics)	1	1
2. Uterine stimulants (Ecbolics and oxytoxics)		
3. Maternal and perinatal mortality		
<b>Total(Obstetrics)</b>	<b>59</b>	<b>100</b>
<b>Gynecology topics</b>		
<b>Part (1) Anatomy of the female genital tract</b>	<b>4</b>	<b>0</b>
1. External genitalia	1	0
2. Internal genitalia	2	0
3. Female pelvic structures and its blood supply	1	0



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<b>Part (2) Embryology and Genetics</b>	<b>3</b>	<b>0</b>
1. Development of the female genital organs	1	0
2. Congenital abnormalities of the genital tract	1	0
3. Basic genetics for gynecologist	1	0
<b>Part (3) Physiology of menstruation</b>	<b>2</b>	<b>2</b>
1. Hormonal control, ovarian cycle and menstrual cycle	1	0
2. Puberty	1	2
3. Menopause		
<b>Part (4) Disorders of menstruation</b>	<b>5</b>	<b>10</b>
1. Dysmenorrhea	1	2
2. Premenstrual tension syndrome		
3. Amenorrhea	2	4
4. Abnormal menstruation and bleeding:	2	4
a. Oligomenorrhea		
b. Hypomenorrhea		
c. Menorrhagia		
d. Polymenorrhea		
e. Metrorrhagia		
f. Dysfunctional uterine bleeding		
g. Post menopausal bleeding		
h. Prepubertal bleeding		
<b>Part (5) Infertility and sexuality</b>	<b>5</b>	<b>10</b>
1. Anovulation, PCO and induction of ovulation	1	2
2. Cervical factors of infertility	1	2
3. Uterine factors of infertility		
4. Tubal factors of infertility		
5. Vaginal factors of infertility	1	2
6. Male factors of infertility		
7. Unexplained infertility		
8. Hirsutism	1	2
9. Female sexuality and sexual dysfunction	1	2
<b>Part (6) Contraception</b>	<b>4</b>	<b>8</b>
1. Physiological methods of contraception	1	2
2. Mechanical methods of contraception		

3. Chemical contraceptives (spermicides)		
4. Intrauterine contraceptive devices	1	2
5. Hormonal contraceptives	1	2
6. Sterilization	1	2
7. Post coital contraception	1	2
8. Contraception for newly married couples		
<b>Part (7) Genital infections</b>	<b>6</b>	<b>12</b>
1. Sexually transmitted diseases	1	2
2. Vulvitis	1	2
3. Pruritus vulvae		
4. Vulval swellings		
5. Vaginitis	1	2
6. Leucorrhea		
7. Cervicitis	1	2
8. Salpingitis	1	2
9. Genital tuberculosis	1	2
10. Billiarziasis of female ocal tract		
<b>Part (8) Genital displacements</b>	<b>2</b>	<b>4</b>
1. Genital prolapsed	1	2
2. Retroverted retroflexed uterus (R.V.F)	1	2
3. Chronic inversion of the uterus		
<b>Part (9) Pelvic injuries &amp; disturbances of Micturition</b>	<b>3</b>	<b>6</b>
1. Genito-urinary fistula	1	2
2. Stress incontinence	1	2
3. Causes of frequency of micturation		
4. Causes of retention of urine		
5. Old complete perineal tear	1	2
6. Recto-vaginal fistula		
<b>Part (10) Endometriosis</b>	<b>1</b>	<b>2</b>
<b>Part (11) Gynecologic oncology</b>	<b>9</b>	<b>18</b>
1. Tumors of the vulva	1	2
2. Tumors of the vagina		
3. Tumors of the cervix	2	4
4. Tumors of the body of the uterus	4	8

a. Uterine fibroid b. Endometrial carcinoma c. Choriocarcinoma		
5. Tumors of the ovary	2	4
<b>Part (12) Differential diagnosis in gynecology</b>	<b>1</b>	<b>2</b>
1. Causes of pelvi-abdominal swelling. 2. Causes of a mass felt in pouch of Douglas 3. Causes of abdominal pain in gynecology 4. Causes of low backache	1	2
<b>Part (13) Gynecological therapy &amp; diagnosis</b>	<b>2</b>	<b>3</b>
1. Radiotherapy and chemotherapy in gynecology 2. Hormone therapy in gynecology 3. Toxic shock syndrome	1	1
<b>Part (14) Gynecological operations</b>	<b>2</b>	<b>4</b>
a. Dilatation & curettage b. Hysterectomy	1	2
c. Laparoscopy and other endoscopy	1	2
<b>Total Hours</b>	<b>49</b>	<b>80</b>

#### **4. Teaching & Learning Methods:**

##### **I- Teaching methods:**

1. Lectures for acquisition of knowledge 108 hours (3 hours/week).
2. Practical classes 180 hours (15 hours/week).

##### **II- Teaching plan:**

###### **1. Lectures:**

- The lectures are given in the lecture hall as determined by the faculty administration 3 lectures weekly (1 hour each), for 36 weeks.  
The students are divided into 2 groups (a and b)

###### **2. Practical:**

The students of the sixth year are divided on three time shift yearly rounds' 1, 2 and 3. Each round is approximately 12 weeks. Every time shift, two new groups come to the department; morning group and



evening group. The department divides each group into 2 subdivisions, A and b.

- a. General obstetrics and gynecological inpatient ward teaching
- b. tutorial

So, 4 subdivisions are present every day for Clinical Rounds. Assistant lecturers attend earlier and demonstrate the clinical cases with the students the 2 staff members will attend daily and discuss clinical cases with the students. The group of students who are assigned for daily clinical case presentations are allowed to see and may do clinical examination of the cases with the residents and demonstrators of the department

**Simulators** are present for normal labour demonstration, implanon insertion and removal, IUD insertion

### **Theoretical Teaching plan:**

The students of the sixth year attend lectures of Obstetrics and Gynecology throughout the year regardless of the clinical round they are assigned to. This old system doesn't guarantee equal chances in learning, doesn't entail inclusion of all the staff members and help greatly in the escape of students from the lectures. To overcome this, the students of the 6th year will be given tutorial with prepared topics from the head of department during the periods of their clinical rounds, from 9 am to 12 am and from 12pm to 3 pm daily in the tutorial room. Only 1of the staff members will be needed to participate in each day for this purpose preceded by assistant lecture.

### **Computer photo sessions:**

These sessions will be used mainly by assistant lecture to help student to understand some clinical practice like operations and photos for different topics covered weekly in the clinical round

### **List of available instruments:**

#### **Gynecology**

- 1- Uterine curettes (types).

- 2- Uterine sound.
- 3- Cervical dilators (types).
- 4- Cervical biopsy punch forceps
- 5- Sharman's endometrial biopsy curette.
- 6- Volsellum forceps (types)
- 7- Vaginal specula (types).
- 8- Vaginal retractors (types).
- 9- Trocar and cannula for laparoscopy.
- 10- Uterine holding forceps.
- 11- Female metal catheter.

### **Obstetrics**

- 1- Obstetric forceps (types).
- 2- Vacuum extractor.
- 3- Ovum forceps.
- 4- Ring forceps.
- 5- Suction curette.
- 6- Green Armytage's hemostasis forceps.
- 7- Pinard's fetal stethoscope.
- 8- Doyen's retractor.

### **III-Time Plan:**

Item:	Time schedule	Teaching hours	Total hours
Lecture	3 times weekly	One hour	<b>108</b>
Practical	5 times weekly	Three hours	<b>180</b>
<b>Total</b>			<b>288</b>

### **5- Student Assessment:**

#### **A- Attendance criteria:**

The minimal acceptable attendance is 75%. Students who fail to attend that percentage of activities will not be allowed to apply for final written examination.

#### **B- Assessment tools:**

TOOL	PURPOSE
End round examination (sheet examinations)	Assessment of knowledge, understanding , intellectual and clinical skills

including problem solving & MCQ)	
<b>Written examination</b>	<b>Assessment of knowledge, understanding und intellectual skills</b>
<b>Oral Examination</b>	<b>For assessment of knowledge, understanding, attitude &amp; general skills.</b>
<b>Clinical Examination</b>	<b>Assessment of clinical (descriptive and diagnostic abilities ) and general skills</b>

### **C- Assessment schedule:**

End-term (clinical rounds) at the end of clinical round

Mid year exam

Final examination:

### **D- Weighing of assessment:**

<b>Examination</b>	<b>Description</b>	<b>Marks</b>
Attendance and end round	Written	40
Mid-year	Written	60
Final	Written	250
	Practical	50
	Oral	100
<b>Total</b>	<b>Total</b>	<b>500</b>

### **E- Grading system:**

- The **minimum passing score** is 300 marks = 60%, at least 60 marks in written exam to be obtained.
- Passing grades are as follows:
  - o Excellent : 85% and above.
  - o Very good : 75% up to below 85%.
  - o Good : 65% up to below 75%.
  - o Pass : 60% up to below 64%.

### **F- Examination description:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	Two written papers/ 3 hours each 1 <sup>st</sup> (3 hours): short essay questions, MCQs & problem solving (Gynecology) 2 <sup>nd</sup> (2 hours): short essay questions, MCQs & problem solving (Obstetrics)	250
Final Practical examination	One case assessment including taking history & clinical discussion	50
Oral Final examination	Two sessions	100

## **6- List of references:**

### **A. Basic materials**

Mohammed Adel's book of Obstetrics and gynecology.  
Fatma Abdel Khalek book of Obstetrics and Gynecology  
Computer presentations used during teaching,  
Jars and instruments

### **B. Suggested materials:**

Williams Obstetrics  
Novak' s gynecology:  
Speroff clinical gynecologic endocrinology and infertility

## **7. Teaching & learning facilities:**

*Facilities used for teaching this course include*

- I-** Lecture rooms in the 3rd floor in the faculty.
  - II-** Classrooms for clinical rounds.
  - III-** Audiovisual aids as: writing board & overhead projectors.
  - IV-** Faculty library in the 3rd floor in the faculty used can be used for projects & text books.
  - V-** Department cases for clinical practice
- \* Black boards are available, Overhead projectors, computers and data show.



***CLINICAL FACILITIES:***

- I-** Obstetric and Gynecological outpatient clinic
- II-** general OB/GYN inpatients units in the hospital
- III-** Emergency room serving about 45 patients a day
- IV-** Operating Theater in the emergency room with 2 delivery rooms and 4 theaters

**We certify that all the information required to deliver this course is contained in the above specification and will be implemented**

**Course coordinator:**

Name: Prof. Dr. Ayman Shabana

Signature..... Date .....

**Head of Department:**

Name Prof.Dr. Ayman Shabana

Signature..... Date .....

# Family Medicine III

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title: Family medicine III**

**Code: MFM-VI 03**

**Program on which the course is given: MBCh**

**Department offering the course: Family medicine**

**Academic year: 6<sup>th</sup> year**

**Date of specification: 2010**

**Date of specification revision: 2017**

**Date of approval by Departmental & Faculty council: August 2017**

**Taught hours: Lectures: 30 hours      Practical: 45 hours      field training: 15 hours      Total: 90 hours**

## B-Professional Information

### 1- Overall aims of course:

**By the end of this course the students able to:**

- a) Adopt holistic and comprehensive approach in primary care management with emphasis woman and child health
- b) Practice Patient-centered care through achieving the clinical and practical standards required to manage, urinary, bowel and emergency cases

### 2 – Intended Learning Outcomes of the Course (ILOs)

#### a- Knowledge and Understanding:

**a1.** demonstrate psychosocial and cultural determinant of health and disease and identify the process of continuity of care for selected patients addressed in national Basic Benefit Package provided by MOHP..

**a2:** illustrate the principles and practice fundamental steps of Patient Centered Communication (PCC) and problem solving.

**a3:** Identify the referral system process, feedback and follow up.

**a4.** List steps and procedure of premarital care, nutritional and psychological care during pregnancy/lactation post-natal relevant history care.

**a5.:**Identify reproductive tract infections and STD's and management plans, analyze domestic violence and its impact on reproductive health and list main under nutrition problems and elements of the national programs of supplementation.

**a6.** List main common physical and psychological health problems encountered during menopause.

### **b- Intellectual Skills:**

**b1.** Interpret common health problems, construct health maintenance and disease prevention through practicing writing the prescription

**b2.** Interpret information from history taking, physical examination and investigations and apply appropriate management plan relevant to different life cycles and events through practice appropriate communication skills.

### **c- Professional and Practical Skills**

**c1.** Apply home visiting and assist in management plan, describe referral regulations and determine the appropriate screening tests.

**c2.** Implement Effective achieving of physical, mental examination according to social environment and Promotion of community health.

**c3.** Construct correct physical examination of pregnant women.

### **d- General and Transferable Skills:**

**d1.** Manage ethical dilemmas in relation to the principles of family medicine and communicate appropriately in the health care setting

**d2.** Solve medical problems through analyzing the steps of preventing and managing occupational exposure.

**d3.** Work in a team through participation in health education seminars and sessions.

**d4.** Apply the ethics of medical practice when dealing with patients and colleagues and develop community orientation skills.

**d5.** Offer continuous medical education and research to keep up-to-date with the international advancement in medical field.

### 3- Course Contents:

No	Topic	ILOs	No of hours			Total
			Theoretic al	Practical		
				Clinical round	Field visit	
1	Low back pain	A1,2,3d2,4,5	2	----		2
2	Neck pain	A1,2,3 d4,5	2	----	----	2
3	Premarital counseling	A1,2,3,4 d3,4,5	1	----	----	1
4	Menstrual problem and hygiene	A1,2,3,5 d4,5	1	----	----	1
5	Role of family physician in High risk pregnancy	A1,2,3,4,5,B1, 2C1,2,3 d4,5	2	4	2	8
6	Post-natal care according to primary care guidelines	A1,2,3,4B1,2C 1,2 d3,4,5	2	4	2	8
7	Common Breast diseases presented in primary practice	A1,2,3B1,2C1, 2 d4,5	2	4	2	8
8	Vaginal discharge in different age groups	A1,2,3,5 d4,5	2	----	----	2
9	Contraceptive methods used in family practice	A1,2,3,B1,2 C1,2 d4,5	2	8	2	12
10	Woman health ( osteoporosis)	A1,2,3,5 d4,5	1	-----	----	1
11	Woman health ( Menopause)	A1,2,3,5,6 d4,5	1	-----	----	1
12	Common symptoms of urinary system disorders (dysuria- heamaturia)	A1,2,3,5 d4,5	2	-----	----	2
13	Common anal problems	A1,2,3B1,2 d4,5	1	1	2	4
14	Urinary incontinence	A1,2,3,5 d4,5	1	1	----	2



15	Irritable bowel syndrome	A1,2,3 d4,5	2	1	----	3
16	Integrated seminar (genital bleeding)	A1,2,3B1,2,d3	2	2	1	5
17	Management of a case of acute abdomen	A1,2,3B1,2C1, 2 d4,5	4	4	2	10
17	Antenatal care in family practice	A1,2,3,4B1,2 C1,2 d4,5	-----	8	2	10
19	Management of a case of burn	A1,2,3 d4,5	-----	4		4
20	Emergency ( cardiopulmonary	A1,2,3d4,5	-----	4	----	4
	Total		30	45	15	90

#### **4- Teaching and learning methods**

1. **Lectures** for acquisition of knowledge: four groups, each group once /day
2. **Seminars:** with integration with other departments of the faculty.
3. **Practical classes:** including role Play, case studies.
4. **Field Trips:** visits to family health center during the practical classes.
5. **Tutorial:** students are divided into five groups and a problem is distributed among them ten days before tutorial. They are asked to discuss the problem as teamwork and present their findings in tutorial day

#### **5- Student assessment:**

##### **A. Attendance Criteria:**

The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

##### **B. Assessment Tools:**

<b>TOOL</b>	<b>PURPOSE</b>
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<b>Written examination</b>	<b>to assess students' knowledge and understanding (a1, 2, 3, 4, 5, 6, 7, 8,9)</b>
<b>Practical examination</b>	<b>to assess students' skills (b 2, 3, 4, 5, C1, 2, 3, 4, 5, 6 and d1, 2, 3, 4, 5, 6)</b>
<b>Oral examination</b>	<b>to assess knowledge, understanding and attitude (a1, 2, 3, 4, 5, 6, 7,8,9 &amp; e1, 2, 3, 4)</b>

**Matching ILOs with teaching methods and assessment of students:**

<b>ILOs</b>	<b>Teaching methods</b>	<b>Assessment</b>
<b>Knowledge:</b>		
<b>A1</b>	- Lectures, presentations by students, tutorial, seminars	Written exam (Define, enumerate)
<b>a2</b>	- Lectures, small group discussion, field visits, role play	Written exam (Define, List, problem solving)
<b>a3</b>	- Role play, case study, small group discussion	Problem solving
<b>A4</b>	- Lectures, case study	Oral exam, problem solving
<b>Intellectual skills:</b>		
<b>B1</b>	Role play, case study, small group discussion, field visits	OSCE
<b>B2</b>	Role play, field visits, practical rounds	OSCE
<b>B3</b>	Role play, small group discussion, lectures, field visits, tutorial, seminar	Problem solving, Oral exam
<b>B4</b>	Case presentations, lectures, tutorial, seminar	Oral exam
<b>Professional and Practical Skills:</b>		
<b>C1</b>	Role play, field visits, lectures, clinical rounds	Problem solving, OSCE,
<b>C2</b>	Field visits, clinical rounds, role play	OSCE, problem

		solving
<b>C3</b>	Lectures, clinical rounds, role play, field visits, tutorial, seminar	OSCE, case presentation
<b>General and Transferable Skills:</b>		
<b>D1</b>	Lectures, Role play, case study, small group discussion	Problem solving, complete.
<b>D2</b>	Lectures, role play, tutorial, seminar	OSCE, problem solving
<b>D3</b>	Small group discussion, field visits, role play	Group presentation

### C- Assessment schedule:

- **Assessment 1:** Semester work by written assessment at the end of each round.
- **Assessment 2:** Final-term assessment at the end of the academic year by written examination, oral examination and practical examination (OSCE & OSPE).

### D- Weighting of assessments

EXAMINATION	MARKS ALLOCATED
Final examination	25 marks (50%)
Periodical assessment (Attendance and behavior as a part of the end round work and end round examination)	10 marks (20%)
Clinicql	5 marks (10%)
Oral exam	10 marks (20%)

Total	50 marks (100%)
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### **E- Grading system:**

- The minimum passing score is 25 marks provided that at least 7.5 marks are obtained in the final written examination.
- Passing grades are : Excellent  $\geq 85\%$  , very good 75-<85%, Good 65-<75% and pass 60-<65%.

### **F- Final Examination Description:**

EXAMINATION	DESCRIPTION	MARKS
Final Written examination	One hour written paper MCQ and problem solving	25
Final Clinical examination	Two clinical cases with checklist	5
Oral Final examination	One session ( discussion of cases)	10

### **6- List of references**

1- Course notes

Departmental book

2- Essential books (text books):

Rakel., R. Textbook of Family Practice 6th edition W.B. Saunders Company Philadelphia London Toronto Montreal Sydney Tokyo 2008.

3- Recommended books

South- Paul ., J.E. Matheny., S.C. Lewis ., E.L .Current Diagnosis & treatment Family Medicine 2nd edition A lange Medical book2008.

Practice Guidelines for family physicians 2007

4- Periodicals, Web sites, ... etc

Journal of the American Academy of Family Physicians

## **7- Facilities required for teaching and learning**

1. Lecture rooms in the faculty supplied with (Board, Overhead projector & Data show).
2. Round halls in the department of dermatology where facilities are available
3. General Library of the faculty.
4. Field trips

**We certify that all the information required to deliver this course is contained in the above specification and will be implemented**

### **Course coordinator:**

**Name:** Prof. Hala Shaheen

**Signature**.....**Date**  
.....

### **Head of Department:**

**Name:** Prof. Hala Shaheen

**Signature**.....**Date**.....  
.....

## English Language

**University: Menoufia**

**Faculty: Medicine**

### A-Administrative information

**Course title:** English Language

**Code:** MU-EN

**Program on which the course is given:** MBCh

**Department offering the course:** Department of Clinical Physiology

**Academic year:** 1<sup>st</sup> year

**Date of specification:** 2010

**Date of specification revision:** 2017

**Date of approval by Departmental & Faculty council:** August 2017

**Taught hous: Lectures:** 30 hours

**Total:** 30 hours

### B-Professional Information

#### **1- Overall aims of course:**

**By the end of this course the students able to:**

1. Knowledge of medical terminology required in the field of studying medical sciences.
2. Language skills needed in medical career.
3. Ability to comprehend oral and written conversations.
4. Knowledge of basics of essay writing.
5. Ability to construct a well structured paragraph.

#### **1- Intended Learning Outcomes:**

### **a. knowledge & understanding:**

*By the end of the course, students should be able to:*

- a1. Demonstrate knowledge of prefix and suffix.
- a2. Demonstrate knowledge of important medical terms.
- a3. Identify Latin and Greek origin of medical terminology.
- a4. Demonstrate knowledge of the basics of writing of paragraphs and essay.

### **b. Intellectual Skills**

*By the end of the course, students should acquire the skills required to:*

- b1. Comprehend a written or audible paragraphs and make inferences.  
(conclusions)
- b2. Select and use proper medical terminology in a scenario.
- b3. Deduce ideas and concepts while reading.
- b4. Select the proper functional language in different situations [places, events, formal and informal English ie. conversational].

### **c. Professional Skills**

- c1. Use correctly relevant general English vocabulary.
- c2. Apply elements of sound style of language and the grammatical and phonological components of medical English.
- c3. Write a well structured paragraph.
- c4. Skim and scan a written text.

### **d. General and Transferable Skills:**

*By the end of the course, students should be able to:*

- d1. Work in a team respecting superiors and colleagues.
- d2. Demonstrate self learning and research activities .
- d3. Correctly evaluate self and peers.

### 3- Course Contents

TOPIC	% Total hours	Number of hours		
		Total	Lecture s	Others
MEDICAL TERMINOLOGY	26	8	8	0
COMREHENSION	20	6	6	0
WRITING PARAGRAPH	20	6	6	0
WRITING ESSAY	24	7	7	0
PROFESSIONAL COMMUNICATION	10	3	3	0
<b>Total</b>	<b>100%</b>	<b>30</b>	<b>30</b>	<b>0</b>

### 4- Teaching and Learning Methods:

#### 1. Methods used & teaching plan

**Lectures:** (1 hour / week). Students are divided into two groups (about 300 students each) and students attend in big lecture hall.

\* Teaching method is designed to serve different educational goals, and provide an appropriately stimulating atmosphere for learning.

### 5- Student Assessment

#### A- Attendance criteria



The minimal acceptable attendance is 70%. Students who fail to attend that percentage of activities will not allowed to apply for final written examination.

### **B- Assessment tools:**

**Written examination:** 3 hours

For assessment of knowledge, understanding and skills.

### **C- Assessment schedule:**

**Final examination:**

Held at the end of the academic year for all students.

### **D- Grading system**

<b>Examination</b>	<b>Description</b>	<b>Marks</b>
<i>Final</i>	written	Complete: 10 M.C.Q.s: 20 Essay: 20
<b>Total</b>		50

- The **minimum passing score** is 30 marks in written exam to be obtained.
- Passing grades are as follows:
  - Pass : more than 60%.
  - Fail : Less than 60%

### **V- Examination description:**

Summative assessments are the only used assessment methods at the end of the year (no formative assessment).

## **6- Learning and reference material**

- The department issued elementary book just to guide the student to the fundamental theoretical knowledge which stands for a handout for the lectures.

- Suggested materials:

Essential Books (Text Books) (Available at department or faculty library).

## **7- Teaching & learning facilities:**

**I-** Lecture rooms in the 1st and 3<sup>rd</sup> floor in the faculty.

**II-** Audiovisual aids as: writing board & overhead projectors.

*We certify that all of the information required to deliver this course is contained in the above specification and will be implemented*

	<b>Name</b>	<b>Signature</b>	<b>Date</b>
<b>Course coordinator</b>	Prof. Dr. Hesham Ahmed Diaa Abdel-Razek		
<b>Head of Department</b>	Prof. dr. Hesham Ahmed Diaa Abdel-Razek		

# Computer

**University: Menoufia**

**Faculty: Medicine**

## A-Administrative information

**Course title:** Computer for first year students

**Code:** MU-COMP

**Program on which the course is given:** MMIP

**Department offering the course:** Computers and information faculty departments

**Academic year:** 1<sup>st</sup> year

**Date of specification revision:** 2017

**Date of approval by Departmental & Faculty council:** August 2017

**Taught hours: Practical:** 30 taught practical hours

## B-Professional Information

### **1- Overall aims of course:**

**This course aims to provide students with:**

- Provide a technical introduction for computer science and medical information Science.
- To instill an awareness of the various types of information sources available.

### **2- Intended Learning Outcomes:**

#### **a. knowledge & understanding:**

*By the end of the course, students should be able to:*

- a1. Describe each part of computer hardware including storage devices, RAM and types of printers and its function.
- a2. Outline the basics of computer operation

- a4. Identify the use of each office program.
- a5. Discuss various computer applications in medicine - for instruction, information managing, computer based medical record, etc.

### **b. Intellectual Skills**

*By the end of the course, students should acquire the skills required to:*

- b1. Integrate Knowledge with practical lessons
- b2. Select the proper application for the type of information.
- b3. Select the proper solution for problems detected during computer operation.

### **c. Professional Skills**

- c1. Use the windows operating system efficiently.
- c2. Practice different applications of MS Office.

### **d. General and Transferable Skills:**

*By the end of the course, students should be able to:*

- d1. Deals respectfully with superiors and colleagues.
- d2. Apply the principles of self learning and research..
- d3. Correctly evaluate self and peers..

## **3- Course Contents**

TOPIC	Practical hours
Computer components	5
Using Windows operating system	5
Using basic applications of windows	4
Using <i>Microsoft word</i>	8

Using Microsoft excel	8
<b>Total</b>	<b>30</b>

#### **4- Teaching and Learning Methods:**

Practical classes conducted at the faculty computer labs by professional trainers .

#### **5- Student Assessment**

##### **A- Attendance criteria**

The minimal acceptable attendance is 75%. Students who fail to attend that percentage of activities will not allowed to apply for final written examination.

##### **B- Assessment tools:**

***Practical examination*** for assessment of all intended learning outcomes.

##### **C- Assessment schedule:**

##### ***Final practical examination:***

Held at the end of the academic year for all students.

##### **D- Weighing of assessment:**

Practical examination: 50 marks-

##### **E- Grading of assessment:**

- The **minimum passing score** is 30 marks in practical exam to be obtained.
- Passing grades are as follows:  
Pass : more than 60%.  
Fail : Less than 60%

#### **6- Learning and reference material**

- A practical manual issued by the faculty

#### **7- Teaching & learning facilities:**

Computer lab at the library of the faculty.



Menoufia Faculty of Medicine  
Accredited



Computers with essential software available at the lab

*We certify that all of the information required to deliver this course is contained in the above specification and will be implemented*

	Name	Signature	Date
<b>Course coordinator</b>	Dr. Rashed Khalil		

## حقوق الإنسان Human Rights

الكلية: الطب

الجامعة: المنوفية

### أ – معلومات أساسية :

اسم المقرر : حقوق الإنسان

كود المقرر: MU-HR

القسم الذى يقدم المقرر: قسم القانون – كلية حقوق المنوفية

البرنامج الذى يدرس به المقرر: برنامج بكالوريوس الطب والجراحة

الفرقة : الأولى

منسق المقرر : اد / مصطفى حسني

تاريخ إقرار التوصيف: 2010/5

تاريخ مراجعة التوصيف: 2017/8

عدد الساعات الدراسية: 15 ساعة نظرية.

### ب – معلومات متخصصة :

#### ١ – أهداف المقرر

الإلمام بأهمية حقوق الإنسان والنشأة التاريخية لتلك الحقوق لتأصيل تلك الحقوق وأحكام الاتفاقيات الدولية الخاصة بحقوق الإنسان ، والمنظمات الدولية , العالمية والإقليمية القائمة على حماية تلك الحقوق ، وموقف الدستور المصرى من حقوق الإنسان ، والحماية القانونية لها على الصعيد الوطنى والصعيد الدولى ، بالإضافة إلى حقوق الإنسان فى الشريعة الإسلامية .

## ٢ – المخرجات التعليمية المستهدفة من تدريس المقرر :

### ((Intended Learning Outcomes

#### أ – المعرفة والفهم : ( Knowledge and Understanding)

- أ 1- يذكر أصل النظريات المتعلقة بأساس حقوق الإنسان وتطورها.
- أ 2- يذكر المصادر الوطنية والإقليمية والدولية لحقوق الإنسان.
- أ 3- يصف نظم الحماية المقررة لحقوق الإنسان على الصعيد الوطنى والدولى.
- أ 4- يصف بالتفصيل بعض أنواع الحقوق.
- أ 5- يذكر حقوق الإنسان فى الإسلام

#### ب – القدرات الذهنية (Intellectual skills)

- ب 1- يوضح الفرق بين حقوق الإنسان فى الماضى والحاضر.
- ب 2- يناقش مفاهيم حقوق الإنسان.

#### ج - المهارات المهنية: Professional Skills

- ج. ١ – يستطيع إعداد بحوث فى مجال حقوق الإنسان .
- ج. ٢ – يقدر على تقييم التشريعات والقوانين ارتكازاً على حقوق الإنسان
- ج. ٣ – يقدر على العرض والتحليل .
- ج. ٤ – يعمل من خلال الفريق وقبول العمل التطوعى .

#### د – المهارات العامة

- د. ١ – يساعة الزملاء على اكتساب الخبرة فى مجال حقوق الإنسان .
- د. ٢ – يحلل ويحل المشكلات المتعلقة بحقوق الإنسان .

## ٣ – محتوى المقرر

- الأصول التاريخية لحقوق الإنسان.
- المصادر الدولية لحقوق الإنسان العالمية والأقليمية .
- المصادر الوطنية لحقوق الإنسان.
- الأجهزة العالمية القائمة على حماية حقوق الإنسان.
- الحماية الوطنية لحقوق الإنسان.
- حقوق الإنسان فى الشريعة الإسلامية .
- عرض لبعض طوائف حقوق الإنسان.



#### ٤ – أساليب التدريس والتعلم Teaching and learning methods

٤. أ- إلقاء المحاضرات العامة .

٤. ب- الحوار والمناقشات مع الطلاب

#### ٥- تقييم الطلاب Students assessment Tools

أ – الأساليب المستخدمة

امتحانات تحريري لقياس التحمل: امتحان تحريري واحد مدته 1 ساعة

ب - توزيع الدرجات: 30 درجة نهاية الفصل الدراسي ١٠٠%

ج- Grading system نظام تحديد التقديرات

الامتحان التحريري في نهاية العام الدراسي

لاتضاف درجات المقرر إلى الدرجات الكلية للبرنامج

#### ٦- قائمة الكتب الدراسية والمراجع List of references

Course notes : مذكرات حقوق الإنسان

#### ٧- الإمكانيات المطلوبة للتدريس والتعلم :

إعداد شرائح تعليمية في مختلف موضوعات قانون حقوق الإنسان

أستاذ المادة : أ.د / مصطفى حسني

## مدخل إلى الجودة

الجامعة: المنوفية الكلية: الطب

### أ – معلومات أساسية :

اسم المقرر : مدخل إلى الجودة

كود المقرر: MU-IQ

القسم الذى يقدم المقرر: مركز ضمان الجودة بالجامعة

البرنامج الذى يدرس به المقرر: برنامج بكالوريوس الطب والجراحة

الفرقة : الأولى

منسق المقرر : اد / عادل مبارك

تاريخ إقرار التوصيف: 2010/5

تاريخ مراجعة التوصيف: 2017/8

عدد الساعات الدراسية: 15 ساعة نظرية.

### ب – معلومات متخصصة :

#### هدف المقرر:

- إلمام الطالب بأهمية جودة التعليم في تحقيق تنمية القوى البشرية وضمان الأمن القومي وتعريفه بالأصول التاريخية للجودة في التعليم العالي و توضيح آليات تحقيق ضمان جودة التعليم والإعتماد و دور القيادات الأكاديمية والطلاب في تحقيق ذلك

#### المستهدف من تدريس المقرر

#### أ- المعلومات و المفاهيم:

- 1- يوضح المفاهيم والمصطلحات الصادرة عن الهيئة القومية لضمان جودة التعليم
- 2- يبين الأصول التاريخية للجودة في التعليم الجامعي
- 3- يميز عناصر جودة التعليم
- 4- يلخص خطوات تطور الجودة والإعتماد بجمهورية مصر العربية
- 5- يناقش دور الهيئة القومية لضمان جودة التعليم

- ٦- يرتب خطوات إعتقاد مؤسسة تعليمية
- ٧- يوضح معايير إعتقاد مؤسسات التعليم العالي بمصر
- ٨- يفسر مؤشرات معايير الإعتقاد

### **ب- المهارات الذهنية:**

- ١- يقارن بين أنواع الإعتقاد
- ٢- يستنتج دور الطالب في تحقيق معايير الإعتقاد
- ٣- يقارن بين دور مركز الجودة بالجامعة و دور وحدة ضمان الجودة بمؤسسة تعليمية
- ٤- يصمم خطة لإعتقاد مؤسسة تعليمية
- ٥- يقيم ممارسات مؤسسة تعليمية لتحقيق معايير الإعتقاد

### **ج- المهارات المهنية:**

- ١- يمارس توعية لأقرانه بالجامعة بجودة التعليم وفكر الجودة
- ٢- يكتب رؤية ورسالة لكليته
- ٣- يقيس ممارسات مؤسسة لتحقيق مؤشرات المعايير

### **د - المهارات العامة:**

- ١- يجمع ويعرض المعلومات بطريقة ملائمة
- ٢- يعمل في ويقود فريق عمل
- ٣- يتواصل بإيجابية مع الآخرين.

المقرر ساعة نظري كل أسبوع

### **المحتوى**

- بعض المفاهيم الأساسية والمصطلحات الصادرة عن الهيئة القومية لضمان جودة التعليم والاعتماد لاستخدامها في المراحل المختلفة لعملية التقويم والاعتماد
- لتطور التاريخي لضمان الجودة في التعليم
- مفهوم ومبادئ ضمان جودة التعليم والاعتماد
- تطور الجودة والاعتماد بجمهورية مصر العربية
- الهيئة القومية لضمان جودة التعليم والاعتماد
- إجراءات الاعتماد
- معايير الاعتماد لمؤسسات التعليم العالي بجمهورية مصر العربية
- دور كل من الطالب وعضو هيئة التدريس والقيادات في تحقيق جودة التعليم

- مركز ضمان الجودة بالجامعة
- وحدة ضمان الجودة بالكلية

#### التقييم

- أعمال سنة بنسبة ٢٥% من الدرجات
- امتحان تحريري في نهاية العام يمثل ٧٥% من الدرجات
- المقرر من ٢٠ درجة

#### مصادر التعلم

- كتاب مدخل إلى جودة التعليم والإعتماد

#### منسق المقرر

أد عادل مبارك